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**P**olicing is a critical area of democratic governance wherein even a single act has the ripple effect of disturbing whole fabric of society. Ferguson issue involving shooting of a teenager by police has been adversely affecting the US establishment for last one year and Nirbhaya case leading to paradigm shift in gender policing are some of the incidents that validate the argument. As a first responder, police has to leverage the delicate balancing act, and get going their work professionally in systematic and prudent manner.

In the backdrop of this critical aspect of policing, Hon'ble Prime Minister's SMART Police model has added critical thinking to the whole gamut of law enforcement. This Model of SMART Police as articulated in the conference of Police Chiefs at Guwahati in November, 2014, and in other forum incorporates all such programs/activities which citizens and the experts in the field have been demanding for long time. The significance of reform idea in policing has to include the Premier's prescription of SMART Policing having attributes of sensitivity, modern and mobile, alertness and accountability, reliability and responsiveness, and tech savvy and well trained police. The template of PM's SMART Police Model has all the inputs and wherewithal which will allow the law enforcement agencies to galvanize itself into more modern and proficient one. It has the potential of filling the existing gaps in policing and taking care of critical areas which more often than not lead to criticism.

This is what the lead paper, 'The "T-2" of the SMART Police: A Re-look at Police Capacity Building' by Shri Vineet Kapoor vouches for. According to him, the capability building focus of the law enforcement agents needs to be in the direction of community orientation, non-partisan ethos and sensitivity towards the problems of those subordinated individuals and groups of the society whose liberty and sensitivity is at a greater danger of getting compromised. The woman, the children, the dalits, the adivadsis, the landless and the poor rural folk, the poor urban slum dwellers, the minorities both cultural and religious, the physically and mentally challenged all come in this category. The capacity building focus must help each law enforcement agent to internalize this value system.

It is further argued that a paradigm shift in the capacity development and training orientation of law enforcement agencies is required on priority basis. The criminal justice and law enforcement policies are expected to take care of the increasing public demands of a responsive, sensitive and democratic policing. The policy on capacity development of law enforcement agencies need to enlarge the definitions of capacity development to substantially include these values in training, giving equal priority to hard and soft policing skills also.

The value of reliability and responsibility complement each other and its inclusion in policing ethos would not only enhance the capacity building of Police but also its credibility. In an article, 'Behavior and Response: Critical Issue in Policing', DR. O.P. Mishra, IPS, underlines the significance of these values and their internalization by Police. Behavior and response are critical issues in Policing, more so it being the first responder in the critical and challenging situations. The initial response and behavior of Police in attending to various eventualities acts as a critical role in building the Police image.

Further the capacity enhancement and efficiency in policing is critical to the community that the police serves. Two studies undertaken by Shri Amit Gopal Thakre and others, 'Public Perception of Community Policing: An Empirical Analysis of Friends of Police Movement in Tirunelveli city, Tamil Nadu', and Shri M.S. Singh, 'Relevance of Community Policing in Manipur' have affirmed the effectiveness of community policing in bridging the trust deficit and making policing more responsive and effective. "The result showed that 'Friends of Police Movement' has helped in improving 'police image', 'public's willingness to cooperate' and reduced 'fear of crime'. Though in case of Manipur, where Village Defense Force (VDF) was created as experiment of community policing has not been able to make required effect, yet it has the potentiality in bridging the gap between Police and Community which would help in surmounting the policing and security challenges, like insurgency and LWE violence".

The present edition of The Indian Police Journal also includes articles on different issues relating to the policing such as 'Violence Against Dalit Women: Incidence, Causes, Consequences and Remedial Strategies with Special Reference to Police' by Dr. Rajneesh Kumar Chander; 'Human Rights of Prisoners- A Perspective', by Dr Aparna Srivastava; 'Hope, Optimism and Gratitude in Indian Police Force' by Shri Pragyendu Nath and others, which deal with other templates of Hon'ble Prime Minister's SMART Police Model.



(Gopal K.N. Chowdhary)

Editor

# The 'T-2' of the S.M.A.R.T. Police: A Relook at Police Capacity Building

Vineet Kapoor\*

## Keywords

*Smart Police, T, T-2, Relook, Capacity Building, Police Capacity Building.*

## Abstract

*This article concerns with the Prime Minister's 'SMART' Policing model which he gave at the annual conference of the heads of Police Organizations, held at Guwahati in the last week of November 2014 and re-emphasised at the same conference at Kutch in December 2015. Through SMART the Prime Minister means S for strict but sensitive, M for modern and mobile, A for alert and accountable, R for reliable and responsive and T for techno-savvy and trained".*

It was in the month of December that a rape and fatal assault occurred on 16 December 2012 in Delhi, when a young woman was beaten and gang raped in a private bus in which she was travelling with a friend. The woman died from her injuries thirteen days later while undergoing emergency treatment in Singapore. The incident which is now remembered as the 'Nirbhaya Case' generated widespread national and international coverage and was widely condemned, both in India and abroad. Subsequently, public protests against the state and central governments for

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failing to provide adequate security for women took place in New Delhi where thousands of protesters clashed with security forces. Similar protests took place in major cities throughout the country. On December 23, 2012 a three member Committee headed by Justice J.S. Verma, former Chief Justice of the Supreme Court, was constituted to recommend amendments to the Criminal Law so as to provide for quicker trial and enhanced punishment for criminals accused of committing sexual assault against women, following huge public unrest and forceful demonstrations against the Delhi Rape Case of 16th December 2012, which gave vent to the popular sentiment simmering against a gender insensitive Law and Law Enforcement Structure. The Committee submitted its report on January 23, 2013; within one month of its constitution, which is a record in itself and a huge testimonial to the Public Demand oriented institutional Delivery mechanism hitherto unseen in India. The Justice Verma Committee report submitted on 23rd January 2013, which led to the passing of Criminal Amendment Act by Indian Parliament, all of which form a rare example of activism shown on the parts of our democratic institutions, guided by mass protests and public demands. The Police did a commendable job in investigation of the case and all accused were arrested and charged with sexual assault and murder. The courts were quick in the trial and finally the conviction also came in required time limit.

The last three years have been landmark years for probing the Rule of Law, Access to Justice and Law Enforcement issues in India. It is indeed very relevant to get the Prime Minister's Message for 'SMART' Police during this time. As mentioned by many commentators, nothing in the SMART model is new, it has been the part of police reform rhetoric since a long time now. What is relevant is the context in which this model has been introduced. The Prime Minister, while acknowledging the great contributions and sacrifices of the police in India, has expected

the desire to make the police SMART according to the values he has attached to each alphabet. This is because the Police Image in the popular perceptions is not very positive. The police is not seen as an agency which is having capacities to deliver according to the demands and expectations of a democratic polity committed to the ideals of a welfare state, if one goes by the public perceptions reflected through the popular media, be it print or electronic. The huge public confidence deficits getting increasingly reflected in large scale nationwide concerns, make it clear that there are areas where the police personnel is considered not oriented enough to handle the job expectations coming out of public demands. A number of academic studies and surveys have also revealed this crucial aspect. There are a number of high-level inquiries, which have again reinforced this aspect, particularly notable being the Justice BR Shrikrishan Report which deals with the communal bias within the Law Enforcement institutions and the Justice Verma Committee Report, more recently on the Gender insensitivity issues.

Despite the great sacrifice and contributions, the police desperately needs to revamp its image and its professional orientation, which suits the popular expectations. The Prime Minister's SMART model has all those elements put together which convey this image and professional need. The values attached to each alphabet in the SMART model, would need elongated discussions as the issues are complex and need considerable attention. I would just pick the 'T' out of the SMART and within the 'T' the 'T-2' part, that is out of the 'T' which stands for Techno and Training (placed in the same order), I would take the latter part and hence I call it the T-2 part that is the Training part of the SMART Model for further discussion.

### **Public Demands & Capacity Building of Police**

The public frustration over the Law Enforcement mechanisms is reflected in the form of public struggle to get justice through



persistent placement of demands by mass protests, as has been seen in Delhi, Mumbai, Assam, Bangalore, Pune, West Bengal and elsewhere during the Delhi Rape Case and later in Mumbai Rape Case as well. This raises questions for the democratic norms on which the Indian Constitution stands. If we view the mass protests and the public struggle to get a more 'Responsive' and 'Sensitive' Law Enforcement Structure, it reveals serious gaps in its performance in popular perceptions placing serious doubts over the good governance ideals on which the institutions in a democracy must work. Alternatively viewed, this kind of demand placement for reforming Law Enforcement Systems and Structures are also possible only in a democratic polity. However viewed, this is important to note that there is a valid and forceful demand for altering the Law Enforcement Structures and Practices in order to make them more democratic in orientation and more 'Responsible' and 'Accountable' to the public. This places demands on the Capacity Building and Training Needs of the Police, bringing us to the T-2 of the SMART Model.

Illustrations from the experience of UK in terms of similar democratic demands and Government response for Law Enforcement related Capacity Building and Training reforms could be considered as a valid context to draw inferences.

### The UK Experience

In 1981 widespread ethnic riots between the black and white communities broke out in Brixton UK. Lord Scarman, a celebrated legal luminary was requested by the Home Secretary to hold a public inquiry and present a report. According to the report, published in November 1981, the riots were spontaneous outburst of built-up resentment sparked by particular incidents. Scarman stated that "complex political, social and economic factors" created a "disposition towards violent protest". Unquestionable evidence of the disproportionate and indiscriminate use of 'stop and search' powers by the police against black people was sighted as

an important cause of resentments against the police. The inquiry stated that the liaison arrangements between police, community and local authority had collapsed before the riots. According to the Scarman report, the local community mistrusted the police and their methods of policing. Lord Scarman recommended changes in training and law enforcement, and the recruitment of more ethnic minorities into the police force. This led to intense debates in UK Parliament, resulting into the passing of the Police and Criminal Evidence Act 1984 and establishment of Police Complaints Authority 1985<sup>1</sup>.

After almost a decade of publication of Scarman Report, the Stephen Lawrence Case and its inquiry in the form of Macpherson Report made significant impact on the Law Enforcement scenario in Britain. Stephen Lawrence was a Black British man from London, who was murdered in a racist attack while waiting for a bus on the evening of 22 April 1993. It was suggested during the course of that investigation that the murder was racially motivated and that Lawrence was killed because he was black. It also concluded that the issue of race affected the handling of the case by the police. A public enquiry was held in 1998, headed by Sir William Macpherson that examined the original police investigation and concluded that the force was institutionally racist. The report found that there had been a failure of leadership by senior Metropolitan Police Service officers and that recommendations of the 1981 Scarman Report, compiled following race-related riots in Brixton had been ignored. This again led to widespread public concerns and protests leading to intense debates in the Parliament resulting into the enactment of Police Reforms and Criminal Justice Act 2003. This also led to the Comprehensive Training Reforms and Human Rights Mainstreaming in the police services as a 'capacity development' initiative<sup>2</sup>. These reforms placed premium on

<sup>1</sup> Rosenbaum, D. P. (1998). The changing role of the police: Assessing the current transition to community policing. In J.P. Brodeur (ed.). How to recognize good policing. Newbury Park, CA: Sage 1998; Newburn Tim, Handbook of Policing, 'introduction', Willan Publishing Devon UK, 2008.

<sup>2</sup> ibid

'community and race relation' issues as the major training input resulting in the inclusion of attitudinal orientation, behavioural components, equal opportunities, democratic principles, human rights standards, values and ethics as the principle components of the training curriculum for the civilian police training and replaced many militaristic aspects of police training curriculum. This change in the paradigm of capacity building of the civilian police have so far brought good results and have been well received by the public<sup>3</sup>.

### Public Demands & Context of Law Enforcement in India

Viewed from Indian perspective the public demands for a more responsive and sensitive Law Enforcement Structure needs to be re-examined. Within this demand, there is a need to revisit the 'Training' and capacity building rationale, which currently guides the Law Enforcement Structures in the country. It has to be seen, how far the policy on the capacity development and orientation of the Law Enforcement institutions mainstreams the demands for Access to Justice in practice. This must be seen through the cultures of governance and policing in which 'capacity development' terminologies are more likely to be viewed in terms of skill development of the Law Enforcement personnel with respect to: the advanced weaponry, advanced forensics, competencies in arms, ammunition, drill, command & control mechanics of uniformed forces, combat skills, jungle tactics, anti terrorist operations, cyber forensics, intelligence craft etc. This is a justified approach in a Law Enforcement environment where the internal security scenario remains a matter of high concern. However, does this internal security scenario has enough justification to give a peripheral reference to the capacity building demands from other equally important priority areas concerning common peoples' access to security and justice?

<sup>3</sup> 'Training Matters', British Home Office, Her Majesty's Inspectorate of Constabulary, HMIC 2002, available at [www.homeoffice.gov.uk](http://www.homeoffice.gov.uk); Newburn Tim, Handbook of Policing, 'introduction', Willan Publishing Devon UK, 2008.

Considering the primacy and monopoly of the police in human security and its gate keeping role in the justice sector, a review of the voices raised in the public domain concerning law enforcement in the country would reveal that the Law Enforcement agents have been felt wanting in fulfilling their duties towards the security and access to justice of the women, the dalits, the children, the minorities, the poor, the marginalized and the subjugated individuals and groups, representing the under privileged masses of the country. This is a concern which is getting reflected by the popular protests in the country, particularly for the safety of women. Two years have passed after an exemplary mass struggle for women's security followed by a very committed and commendable Report by Justice Verma Committee, which lead to changes in Law by an equally exemplary response of the legislature, in amending the Law to respond to the democratic demands of 'security and Justice'. It is indeed disheartening to note that majority of the police personnel at the district and police station level are still not aware of the new laws and amendments made through the Criminal Amendment Act.

What should be the response of the Law Enforcement Machinery to a nationwide struggle to get 'justice and security for women' ? The democratic demands and amendments in law definitely need an equally forceful attempt to gear up the policing response and to change the policing and law enforcement culture for a more responsible and accountable handling of such crimes and criminality and for 'building a more sensitive law enforcement environment'. This could take place only through a massive 'Training' effort at national level to cover each police personnel for training them and building their capacity to deal with violence against women and enforce the law according to the Criminal Amendment Act's spirit, more responsibly and sensitively. This kind of training effort still misses from the annual budgets and strategies of the policing plans. One can visit the calendar of the training centres at the national and state level, or view the on the job training interventions, most of them would not reveal any significant changes in the existing pattern of course selection or any amendments in the existing

syllabi to include various aspects of violence against women and its related aspects in any significant manner to suit the democratic demands of the public on streets which so much engaged the nations imagination two years back. Though is only two years back yet it is not fresh or inspiring enough for a massive Training and capacity building drive! The Law Enforcement and Policing does not seem to take its Training in respect of the democratic demands or even in respect of the 'Accountability' it has towards the public. The context of violence against women is one of the examples, there are many similar areas of capacity building of policing and law enforcement where the 'Training' needs to gear up to the 'Accountability' part of the Policing in order to deliver a more 'Sensitive', 'Responsive', 'Alert' and 'Responsible' Police Service to the people in this democracy. The need to serve the underserved must principally engage the police efforts of capacity building and Training to cater to their role orientation in a post colonial state which has the responsibility of running a democracy within the context of its social and economic diversity.

### Context of Capacity Building of Police

The direction and content of the capacity development efforts employed for the law enforcement agents through training must be critically analyzed as to how various police organisations conceive their capacity building needs, identify their training priorities, and implement them. The socialization of an individual into the police service takes place through basic and induction training at the beginning of the carrier and the skills, values and normative standards are reinforced and mainstreamed through in-service training. The capacity building and training efforts put in, at the beginnings of the carrier of police officers through their job role identification and orientation definitely has direct impact on their service delivery to the public. There is a huge gap between the Training Needs generated through the expectations from a police service by the public in a democratic governance environment and actual training and job orientation of average police man/women. The deficits of public confidence in police

exists due to the lack of human rights and ethics training where the soft policing issues are almost always compromised at the demands of hard policing issues. This training gap between the hard skills and soft skills components of the police training at the beginnings of the careers of police personnel leads to the socialization of policemen and women into the police service, where self image as a soldier is more prominently taken in and legitimized than his/her role as a community worker and law enforcer entrusted to enforce laws which are generated through the constitutional ideals and normative standards of human rights and social justice.

The Training of Police needs to cater to the Capacity Building of the police officers in the area of Law Enforcement which is based on Rule of Law, Democratic Policing Values, Access to Justice Principles, Ethics, Human Rights Protection, Attitudinal and Behavioural Orientation, Stress Management, Communication and Behavioural Skills, Conflict Management, Negotiation Skills, and Service Orientation. This particular Training Need can be clubbed into Democratic Policing aspects of police training. In particular context of India, the Indian constitutional mandate on Fundamental Rights, the Ethical Orientation of the police and the Access to Justice for the vulnerable groups are the priority areas for democratic policing standards. There is a clear gap in the capacity building initiatives of the police in India. There is an over-emphasis on Militaristic training and the training in 'hard skills' at the cost of Human Rights orientation and 'soft skills' training inputs<sup>4</sup>.

<sup>4</sup> Rai V.N, 'Police Aur Poorvagriha' Haryana Police Academy Madhuban Publication 2008; The Gore Committee Report on Police Training 1971; National Police Academy Hyderabad' Draft Training Syllabus for 'Constables and Sub Inspectors' SVP NPA Hyderabad Publication 2011, The Justice Verma Committee Report in Delhi Rape Case 2013; CHRI 2005 Report, " Police Accountability :Too Important to Neglect Too Urgent to Delay", foreward. CHRI 2005, available online at [www.humanrightsinitiative.org](http://www.humanrightsinitiative.org); Draft Project Proposal/Business Case on Soft Skills Training for Police Personnel- prepared by Micro Mission 2 of National Police Commission 2008-9 available at Ministry of Home Affairs Govt of India website and BPRD website; Massachusetts Institute of Technology- Abdul Jameel Poverty Action Lab Study Report 'Police Training in Soft Skills and change in police performance' available online at <http://www.povertyactionlab.org/evaluation/police-performance-and-public-perception-rajasthan-india>

The beginnings have been made in this direction, but without a well structured and planned policy initiative. The developments are there but very patchy in nature and with poor coverage in context of content, volume and focus of training. It is also poor in terms of institutional and geographical coverage. Most of the training in India, spread across basic induction training and in service training, which covers the multiple ranks divided entry levels in Indian Police, has a serious gap in its human rights, ethics, community orientation, managerial and behavioural competencies and soft skills training as well as the law, procedure, scientific investigation and forensic aspects of training. Comparing this with the hard skills and combat skills in terms of proportion of time, energy, content, resources and expertise devoted to these trainings, would reveal that hard policing issues gain hugely as compared to soft policing issues, confirming and reinforcing the cultures of policing which feed upon postcolonial sensibilities of militaristic orientation to policing. The soft components have found space within the training curriculum of the elite cadres of the police services very recently and therefore the content, context and the impact of these inclusions has yet to be evaluated. The basic and in service training of the so called 'subordinate' cadre of the civilian police which constitutes more than three fourths of the police strengths and which actually represents the cop on the street, lacks a well-conceived, well-structured, planned and well-designed, universal inclusion of these components in their training. This can be compared with the general training content and curriculum of some of the other democratic countries where the police services enjoy a better public confidence and trust. It is a fact that apart from some specialist cadres, the general civilian police training is more focused on community orientation, behavioural skills, ethical conduct, investigation skills and negotiation skills, which are the skills required as a training need in a democratic police environment.

The capacity building focus of the Law Enforcement agents needs to be in the direction of community orientation, non partisan ethos and sensitivity towards the problems of those subordinated individuals and groups of the society whose liberty and security is at a greater danger of getting compromised. The women, the children, the dalits, the adivasis, the landless and the poor rural folk, the poor urban slum dwellers, the minorities both cultural and religious, the physically and mentally challenged all come in this category. Each individual who lacks 'connections', power and money, also need to be served well as these set of people must be identified as target groups in terms of service delivery. The capacity building focus must help each law enforcement agent to internalize this value system. There is a need for a Paradigm shift in the capacity development and training orientation of the law enforcement agencies in India. The criminal justice and law enforcement policies must cater to the increasing public demands of making the police and other law enforcement agencies more responsive to the public and oriented towards democratic policing norms. The policy on capacity development of law enforcement agents need to enlarge the definitions of capacity development to substantially include these values in the training and capacity development of police and give it equal priority as compared to other hard policing and Law enforcement issues. There is a need to work on the ethos and cultures of policing. It is how a nation socializes its Law Enforcement Agencies into its Law Enforcement cultures, which determines the actual accessibility of democratic institution and justice in the society. The widespread public demands are probably highlighting this need, which the Indian policy on Governance and Law Enforcement must fulfil. This is just the 'T'-2 of the Prime Minister's SMART model, which covers only some of the aspects of police training. The significance of each alphabet is huge and each one needs to be probed and followed with equal zeal. The SMART Model must be seen as a guiding principle and a goal to follow and must not be reduced



through cynicisms to a rhetoric which abound the police reforms dictionary in India.

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# Behaviour and Response: Critical Issues in Policing

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## Keywords

*PESTELO Factors, Empathy, Transparency, Community Policing, Listening and Communication Skills*

## Abstract

*The Behaviour and response of the first responders in any formal public service delivery organization is very critical and plays important role in overall opinion making process of the organization. Police as a formal organization is an important service delivery institution. The initial response of police in attending to various situations in day to day policing plays very critical role in its overall image building. We come across several cases across the globe where the initial response in handling a particular incident by local police in day to day policing has attracted wide spread criticism and debate. Recent shooting of a black teenager in murky circumstances in Ferguson, Missouri just after he robbed a shop and choking to death by a harmless middle aged black man guilty of selling single cigarettes on the streets of New York by a policeman created wide spread criticism and debate regarding response of police. We come across several cases in different parts of the country where the improper response and behaviour in handling a particular law and order by the state police has attracted adverse criticism by members of public and media. In a country like India where police carries a historical legacy of being cruel and oppressive, improper behaviour and response very adversely affects its overall people friendly orientation in day to day policing.*

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*The present paper examines the importance of behavior and response of police in critical areas of day to day policing and its wider implications for overall organization. An attempt has also been made to recommend measures to take care of the issues involved in behavior and response. While both these issues have been examined in the context of Indian Police, they continue to be relevant for police organizations across the globe.*

**“It will be your bounden duty to treat the common men in India as your own or to put it correctly, to feel yourself to be one of them and amongst them, and you will have to learn not to despise or to disregard them. In other words, you will have to adopt yourselves to democratic ways of administration.”<sup>1</sup>**

**“In every court of Alley, the policeman stands for good citizenship. He is a reality to comprehend and upon his impartiality, efficiency and intelligence depend the estimation in which law is held by the masses.”<sup>2</sup>**

## Introduction

**P**olice is a formal organization. Theoretically speaking formal organizations have evolved out of growing human needs and rapid changes in the overall structure in the society over period of time. Policing is not static in nature. It is dynamic and keeps changing in size, shape and priorities as per the needs of the society.<sup>3</sup> Policing is very closely linked with the system of governance. After Independence, policing in India underwent fundamental changes. It evolved from a ruler-oriented force to a community-oriented police. Gradually, it emerged as an important service delivery institution. Behavioural response is a central aspect in any service delivery paradigm. Prevention of crime and maintenance of law and order in the society emerged as two core responsibilities and critical services for police. Community remains at the Centre of all policing activity. Society consists of two types of people. Majority of the people are peace

loving and respect the law. We also have people in society who violate law, commit crime and hurt collective conscience of the society through their actions. A police officer has to deal with these two diametrically opposite group, existing in the society on regular basis. Theoretically speaking police will have to adopt two different operational behavioral strategies to deal with them in every day policing. This is not a very easy task. In a command structure and disciplined organization, the initial response and behavior of the first responder (Bronze segment) is very important. The overall credibility and image of police always depends on how the bronze segments respond to the growing concerns of citizens in the society. This is a very critical area in policing.

The present paper highlights this critical issue which is reflected in various dimensions of policing. The author will basically concentrate on the **behaviour and response pattern of police in some selected areas of routine policing**. Ultimately a police officer is supposed to respond to situations. Even after sixty seven years of Independence a normal citizen is scared of police and is not happy with our response and behaviour in day-to-day policing. This requires serious introspection by the organization whose 80% resources are for the peace loving community. It needs changes in organizational work culture through transformational leadership by Gold and Silver Components so that the professional response of Bronze structure can improve.

One needs to understand that the behavioural and response pattern of police is not abstract and is influenced by various factors in the society. These factors could be **political, social, economic, environmental, technological, legal and organizational (PESTELO)**. For a meaningful understanding of the police behaviour, we need to understand the changes taking place in PESTELO factors from time to time.

The public image of police is based on overall behavioural response to two sets of issues very beautifully summarized by the **International Association of Chief of Police Report (IACP)**



on the image of police. The **first** area covers the dimension of community policing and areas where the security and safety of the community is involved. It includes **reducing crime and disorder, reducing fear of crime, solving neighborhood crime, solving neighborhood disputes and establishing greater cohesion and contact with community in day-to-day policing**. **Second** area is essentially related to adherence or conformity to wide variety of process oriented norms and standards while responding to various needs of the society. These include **integrity, fairness, civility, responsiveness, police response, appropriate use of force and competence**.<sup>4</sup>We are going to discuss some concrete spheres where these dimensions of policing are reflected in day to day policing behaviour.

- a) **Accessibility of Police officers for community:** Accessibility of police officers is a major issue. We find contrasting patterns of police behaviour in rural areas and urban areas. As per latest data released by Bureau of Police Research and Development, MHA, the total number of police stations in the country is 14,360. Out of this 9,347 police stations are in rural areas. Only 4,513 police stations are in urban areas<sup>5</sup>. We can identify **three patterns** of police behaviour. The **first level** is in the metropolitan cities where the accessibility graph of police is very high. The **second level** is reflected in small towns where the degree of accessibility of police is less as compared to metropolitan cities. The **third level** is in the rural areas where the accessibility graph is very low. Our class and status bias gets reflected in responding to the complainants.
- b) **Police Station Interaction:** The next problem comes when a citizen approaches the first responders in the police station. Normally citizens come to police station under distress. The first response of the responding officer to the complaint or problem is very important. Any peace loving and law abiding citizen will expect a patient hearing from the Officer who listens to his grievances. The first positive impression

building of the organization begins here. Unfortunately our response to the complainants in the police station is not very cordial. In several cases the solution to a problem reported upon by an aggrieved person could be beyond the domain of police. He needs to be told and explained immediately with a proper direction to approach the concerned authority for solution of the problem with due courtesy. Similarly, prompt action on typical police problem is also very important. This normally does not happen due to the inability of the responding officer's listening skill. Since you do not listen properly, you do not communicate properly. Following are important aspects of behaviour in dealing with the complainants in the police station.

- i) **Empathy and Politeness:** Even when we listen to the grievances of the community, we are not empathetic to the problems of the complainant. He is not being attended to properly with due courtesy and politeness. Studies indicate that police **courtesy/friendliness toward the citizen** in the first contact with police officials exerts the most powerful influence on the citizen's general evaluation of the police. This holds good for both situations **voluntary** (complaints related to thefts) or **involuntary** (traffic stops) (**IACP Report**). In a random study carried out by Harish Bijoor Consultants of around 14,650 people in metropolitan cities, urban areas and rural areas in India, 67.5% people reported regarding harsh and impolite behaviour of police.
- ii) **Transparency in dealing:** Police officers are often accused of partial dealing while handling written complaints or criminal cases. There is lack of transparency in the dealing. A Police officer fails to project different pattern of behaviour towards the aggrieved and the aggressor. At times he is friendlier to the aggressor than with the complainant. This erodes the confidence and trust of the aggrieved in the police and his hope for justice.

- iii) **Integrity:** This is a major issue for bureaucracy today as whole. An aggrieved who comes in contact with policemen under crisis is not very sure of getting justice due to dubious credentials of the officer.
  - iv) **Insensitivity towards weaker sections, minorities, senior citizens, women and children and other marginalized groups:** India is a very vast country with diverse communities. Still many sections of the society particularly women, children and weaker sections are marginalized in the developmental paradigm. Several laws are in place to bring them into mainstream of the society. The responsibility to provide legal relief to aggrieved persons of such communities lies with the local police of the area. The local police are not very sympathetic towards them while dealing with their problems in day to day policing. They often reflect barriers of listening like cultural or gender prejudices while attending to their problems. This assumes critical importance for law enforcing agencies in developed countries having multi ethnic, multi religious and heterogeneous demographic profile.
- c) **Handling of Law and Order:** In democratic societies protest by aggrieved groups is a legitimate means to express their anger and frustration towards ruling establishments guaranteed under constitution. Sometimes such protests also become violent. While maintaining public order, protecting the constitutional rights of citizens is equally important for police. Public order management requires effective leadership and matured professional handling within set rules. The local police are not able to project a professional outlook in handling various law and order arrangements. Crowd should be treated as an opportunity for healthy public relations management rather than a problem. An effective and professional handling of the crowd and public

order management should take into account four principles outlined by **Prof. Cliff Scott of Leeds University** in his lecture on Public order management. These are **educating** the members of the organization regarding handling of public order by **facilitating** legitimate crowd behaviour with peaceful means through proper **Communication** with the crowd by adopting **different standards** of action in the crowd rather than adopting indiscriminate approach.<sup>6</sup>

**d) Lack of proper Communication with Target Communities**

Most of the time police officers at the middle (silver) and cutting edge level (Bronze) fail to communicate with the target communities. Policing is for the community. We have to take into confidence the community we serve in day-to-day activities. For example, crime prevention is one area where community needs to be taken into confidence. This is possible only if we communicate regularly with the community. There is lot of reluctance in communicating with communities, particularly in rural areas. This happens because we do not listen to their problems. There are several areas in which an officer may have done everything related to the case of a complainant as per law, but since he has not communicated with him, the complainant feels that nothing has been done regarding his case. Communication and dialogue with the community has to be a continuous process.

Most of the issues discussed above were also observed by **Gore Committee Report on Police Training**. It has very succinctly summarized the overall perception about police response and behaviour in following words.

“As far as the Thana (Police station) are concerned, however the evidence before us seems to suggest that their image by and large is unsatisfactory. They are generally said to be **impolite, authoritarian, professionally not up to the mark, dishonest, and unsympathetic to the complaints and grievances of the people.**”

They allegedly favour the well to do or the otherwise powerful sections of the community while poorly dressed citizens are either neglected or harassed. 7"

## Risk Assessment

Since these critical areas of policing have not been addressed properly, it has very seriously affected the overall credibility and image of police. We offer and deliver services to the community. Some of our services are unique which cannot be delivered by any other organization. For those services like protection of life and security, every citizen looks upon police with lot of trust, hope and confidence. Like any other service delivery institution, police is evaluated on the basis of delivery of service. If the service delivery has been good, we get positive response from the community. If the service delivery has not been proper, we get negative response and publicity. Negative publicity about the police has a viral effect. Adverse publicity in one city receives high visibility around the nation may have a nationwide impact on the public's view of police (**IACP Report**). Failure to deliver properly under certain crisis situations has even resulted in violent protests against police. Not taking immediate action on the reported problem and delay in arrest of accused persons by police in violent crime has attracted protest on several occasions. Blocking traffic, stone pelting at the police stations, if murder or rape cases are not solved immediately or proper action has not been initiated on reported complaints, is a common feature for the police in many parts of the country. These are essentially the by product of our improper behavioural response to a particular situation. Since we have not been communicating properly and regularly with the community in routine policing under normal times, it is very difficult to establish and communicate in crisis situations. Constant criticism of any formal organization by important stakeholders has a very serious and negative impact on the overall morale and functioning of the organization. For any organization to survive and achieve excellence the overall

positive image building is very necessary. We cannot afford to lose the trust and faith of community whom we serve on daily basis. The positive image building in any service delivery institution can be achieved only through transformational and situational leadership style by effectively addressing the various changes and managing it properly through critical decision making wherever required.

## Recommendations

The author personally feels that the conditions at work place of an officer and the daily environment, his socio-economic conditions do influence his professional behaviour and conduct in day-to-day policing. An extreme behaviour like use of third degree method during interviewing the suspects or perpetrators of crime is actually reflection of his work conditions. Once we do the **PESTELO** analysis of the behavioural and response pattern discussed above, we are in a position to recommend following areas where changes are required to improve the behavioural dimensions and response pattern of police.

**Work Environment:** The conditions under which the first responders in the police hierarchy perform their day-to-day duties are not very healthy. While urban and city police stations have better infrastructural facilities at work place, the situation in rural police stations is very bad. Some of the police stations even lack basic facilities like separate toilets for female police. The duty hours are very long. There is no specialization in work. One individual is assigned multiple responsibilities. There is no shift system in the police stations in critical areas of policing. The overall strength of police stations is not proportionate to the volume of duties performed. To sum up, an officer in the police station responds to the public under several infrastructural, logistical and duty constraints. The overall work environment does not generate positive energy. As a result it gets reflected before innocent members of public through his behaviour.

**Listening and Communication Skill:** Most of the time the first responder in the police station does not listen to the grievances properly. If at all he listens he is very selective and reflects his typical prejudices. Since he does not listen to the grievances properly he is not able to communicate properly. The listening and communication skill also reflects his ignorance about basic laws and procedures.

**Professional Upgradation:** Police organizations have to constantly upgrade their professional skills in tune with the emerging challenges and responsibilities. To use Darwinian analogy, to survive professionally one has to be fit and in tune with the changes in the society.

### Implementation Strategy

**Work Environment:** To improve the work environment, certain concrete measures need to be initiated at the police station level. To achieve professional excellence in discharge of duties, the overall strength of the police stations needs to be increased which requires action at the level of Policy formulation and could attract participation of political executives. Apart from increasing the strength of the police station, there is a need for rational distribution of manpower as per various duties. Introduction of Shift based duties is the need of the hour in policing. Internal prioritization of the duties and responsibilities and allocation of responsibilities as per professional competence of available manpower is very critical. This is a job which today stands assigned to a lower level officer in the police station, will have to be handled personally by the station commanders of the Police Stations. Constant meeting, briefing and debriefing with rank and file of the police station on regular basis by the Station Commander is very critical for improving the work culture and environment.

**Listening and Communication Skill:** Once the issues related to work environment is taken care of, it will logically improve the listening and communication skill of the first responder. A police

officer will have to be frank and transparent while dealing with the grievances of the people. If an issue reported upon does not have a police solution, the complainant should be told immediately and politely to approach the concerned agency rather than giving false hope of solution. Similarly, in cases where police action is made out, action be initiated swiftly after extending due courtesy to the aggrieved. There is a need to communicate properly and regularly with the complainants of the cases. Officers investigating cases/enquiring complaints can call the complainants and apprise them of the status of the investigation/enquiry. For example, in cases of motor vehicle theft where chances of recovery of the vehicle is very remote, the case can be finalized and all necessary documents for getting insurance can be organized and delivered to the complainants through area beat officers. These things can be achieved easily today through use of email and social media.

**Professional Upgradation:** Like any other service delivery institution, Police will have to constantly upgrade their professional skills to improve the quality of service. Social media has emerged today as the most effective means of image building and channel of communication with the civil society. Extensive use of technological methods for communicating with people is the need of the hour. While several metropolitan and city police have started using channels of social media for communicating with people, it has not reached the desired level. Use of social media in certain critical areas of policing will really help us in overcoming the constraints of manpower also. Increasing the technological infrastructure of investigation and forensic capabilities is very important. There is a need to equip police with modern technological tools and gadgets to increase their pattern of response and overall professional capability. Specialized training covering specialized skills at regular interval will always help policemen to be in touch with the changing pace of society. Over and above the general welfare of the officers and men also requires due consideration.



## Conclusion

India has a total police force of 22, 09,027. With the strength of 14,360 Police Stations and 8,583 Police out posts<sup>8</sup> the country truly represents diversity in terms of the areas of responsibilities handled by the police forces of different states. However, the Police force of the country as a whole also presents unity in the diversity. The uniting factor of the Indian police is service to the community. This is a common thread which binds the Indian Police with rest of the police forces in the world. Service to the community remains and will remain the top professional priority in the new millennium for any police organization in the world. While serving the community we should always remember the beautiful words of **Charles Rowan** and **Richard Mayne**, **First Metropolitan Police Commissioners**.

**“Every Member of the police force must remember his duty is to protect and help members of the public, no less than to apprehend the guilty persons. Consequently, whilst prompt to prevent crime and arrest criminals, he must look upon himself as the servant and guardian of the general public and treat all law abiding citizens, irrespective of their position with unfailing patience, courtesy and good humour.”<sup>9</sup>**

### End Notes:

- 1 (Sardar Vallabhbhai Patel, Bombay Chronicle, 21<sup>st</sup> April, 1947)
- 2 W.L. Melville
- 3 Mishra OP, 2011: XIV)
- 4 **International Association of Chief of Police Report (IACP)**
- 5 **Data on Police organizations: P No: V, BPR&D, 2013).**
- 6 Lecture on Public order Management at National Police Academy, Hyderabad for MCTP Phase III Trainees
- 7 **Gore Committee Report: P NO: 124- 125, Ministry of Home Affairs, Government of India: 1971).**
- 8 **Data on Police Organizations: BPR&D: 2013, P No V)**

9. Second Administrative Reforms Commission, 2005, Fifth report on Public order)

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# Assessing Psychopathy and Aggression Among First Time Female Offenders and Non - Offenders

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## Keywords

*Primary Psychopathy, Secondary Psychopathy, Aggression, Female Offenders, Hostility.*

## Abstract

*The current research attempts to study the levels of psychopathy and aggression among a sample of female offenders (N - 50) and non - offenders (N - 50). The sample was collected from Tihar Jail on first time female offenders with the sample of non - offenders was collected from, in and around Delhi and NCR. The research finds that the levels of psychopathy and aggression were higher in first time offenders as compared to non - offenders. But the levels of aggression were found to be similar for both first time offenders and non - offenders when assessed on subtests of Buss and Perry Aggression Questionnaire. Finally, the conclusions, along with the limitations and further suggestions were discussed.*

## Introduction

**P**sycho-pathic Personality (Psychopathy) is one of the most interesting and quite extensively researched condition in all of the psychopathology though its etiology, prognosis, prevalence, treatment; and management remains under a cloud of controversy and quite poorly understood. Usually found in

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prison and forensic populations (Hare, 1991, 1996) this condition comprises of subset of criminals, with unique personality features (Hare, 1998).

In the early 19th century, the French Psychiatrist Phillippe Pinel described the psychopathic personality (which he termed as 'manie sans delire, that is, insanity without delirium) as exhibiting irrational and antisocial behavior in the absence of psychosis. Benjamin (1941) distinguished between two "types" of psychopathy, which, although often confused, stem from markedly different etiologies. Primary ("idiopathic") psychopaths are callous and non - anxious criminal personalities, whereas ("symptomatic") psychopaths are neurotic or psychotic individuals whose antisocial behaviors spring from pre-existing psychopathology. In the mid twentieth century, Hervey Cleckley provided the most comprehensive description of psychopathy in his highly influential book, *The Mask of Sanity* (1941/1988). In this work, Cleckley delineated 16 criteria for psychopathy, including superficial charm, lack of anxiety, unreliability, and deceitfulness, lack of remorse, inadequately motivated antisocial behavior, failure to learn from punishment, ego centrivity, lack of emotional bonds, absence of insight, and failure to plan ahead. The "Cleckley Criteria" have formed the basis for a large number of subsequent efforts (e.g. Hare, 1991) to assess psychopathy systematically.

Notably, Cleckley did not describe psychopathic patients as characteristically violent, predatory, or deliberately cruel. Rather, he viewed the harm they did to others as a by product of their shallow, feckless natures. In contrast, other influential writers of Cleckley's time who focused on psychopathy In criminal offenders emphasized coldness, viciousness, and exploitativeness. For example, 'lovelessness' had been identified (inability to form deep attachments) and 'guiltlessness' (absence of remorse) as the essence of the disorder.

## Female Psychopathy

Most of the research in the area of psychopathy has focused mainly on sample of males or rather specifically male offenders,

till recent times. It is only quite recently, that the research has focused on the presence of psychopathy among females but in spite of ever growing body of research and evidence, there remains a controversial debate on the prevalence and the behavioral manifestations of psychopathy among female population.

Generally, researchers have found a lower prevalence in the levels of psychopathy when compared to males using the recommended PCL - R cut off. That is, prevalence rates have been found to be varying between 6% (Jackson, et al. 2002) and 17% (Warren, et al. 2003) for female offenders, which is dependent upon the specific sample and assessment method used when compared to the population of psychopaths, 25% - 30%, found to make up the male offenders (Hare, 1991; Hare, 2003). Studies, comparing both male and female prevalence rates indicates a significantly high prevalence rates among male offenders (Grann, 2000), suggesting that in the prison population that the prevalence of psychopathy among female offenders is half the prevalence in males. Females also have been shown to present a significantly lower total and factor scores on PCL - R and PCL - SV (Grann, 2000). It has been argued though, that this difference could be in part be due to an overemphasis on the the anti - social behavior on the PCL - R scales (Farouzan & Cooke, 2005). Similar gender differences have been found while using the PPI, which only specifically measures the personality but not the behavioral manifestations of psychopathy (Uzieblo, Verschuere & Crombrez, 2007), thus indicating that there might be an underlying gender difference affecting the prevalence of psychopathic personality traits between males and females.

There have been theories that suggest that in spite of similar underlying traits, both male and female psychopathy display different behavioral manifestations of the disorder (Forouzan & Cooke, 2005) supported by the conflicting findings relating to violence and psychopathy and existence of strong differential item functioning in the behavioral based psychopathy items.

It has been argued that this could be because of the observed gender specific manifestations of aggression, suggesting that females tend to be aggressive in an indirect fashion. Forouzan also found that the symptoms of glibness/superficial charm were found to be muted in females. These traits were previously found to be affected by cultural differences (Cooke, Hart et al., 2004) and thus, this difference could be the result of gender differences in socialization.

Certain traits have been found to have different underlying psychological meanings that are dependent on gender despite having similar behavioral manifestations. Promiscuous sexual behavior, to be specific, has been theorized to be related more to the female psychopath's manipulative and parasitic lifestyle as related to sensation seeking would be for males (Quinsey, 2002).

Thus, the evidence would appear to suggest that the underlying construct of psychopathy has been found to be both a valid and a reliable disorder among females. The prevalence and the behavioral manifestations though, tend to have gender differences. Particularly, females have been found to display quite significantly lower levels of psychopathy as compared to males, and are more likely to manifest the disorder in a manipulative and indirect manner than in an overt anti - social behavior.

Researchers have found considerable sex differences in the research conducted into the fundamentals of aggression. Verbal aggression, though has been found to have ambiguous sex differences as a recent meta - analysis only finding a moderate effect while others studies failing to find any sex differences at all, though this was only found in younger age groups, and other older groups were found to display strong sex differences with males found to use direct verbal aggression (Archer, 2004). These findings have been duplicated in other studies as well (Osterman et. al., 1998) which has led to claims that males and females might differ in aggression not quantitatively but qualitatively (Bjorkqvist, 1994), but this

relationship might appear to be more complex than what has been found yet, which could be dependent on the age.

## Psychopathy and Aggression

The presence of psychopathic traits has long been related to higher levels of aggression, with experimental and theoretical evidence backing the relationship. But, most researches have focused on male psychopathy, especially offender samples. Also, these researches have almost exclusively focused on studying direct forms of aggression, especially physical and violent offending. Female psychopathy and its relation to aggression have found mixed results regarding its relationship.

The evidence relating female psychopathy with aggression and violence has mixed results, unlike the mountain of evidence relating psychopathy and aggression in males. Female psychopathy has not been found to be related, at least, not significantly to institutional misconduct or violence (Salekin et al. 1997). Though, there have been correlations found with self - reported aggression in one study, thus indicating that these low levels of relation could have been due to a failure to detect the infarctions (Salekin et al., 1997). A research studying the recidivism among female offenders saw that the PCL - R was related only with non -violent recidivism, unlike male psychopaths (Warren & South 2006). Although this has been contradicted many other studies which have found that PCL - R scores did significantly relate to a number of violent crimes that have been committed by female psychopaths (Vitale, et. al., 2002).

## Objectives

This study was initiated to fulfill the following objectives:-

1. To assess psychopathy in female offenders and female non - offenders.
2. To assess aggressive behavior of female offenders female non - offenders.

## Hypotheses

Based on the above mentioned objective the following hypotheses have been formulated:

- There will be significant level of difference in psychopathy in female offenders and female non - offenders.
- There will be significant level of difference in the level of aggression in female offenders and female non-offenders.

## Sample

For the purpose of this research, a sample of 50 Female Offenders and 50 Female Non Offenders was taken using purposive sampling. Purposive sampling, a kind of non - probability sample is the one which is based on the typicality of the cases to be included in the sample. The investigator has some relief that the sample being handpicked is typical of the population or is a very good representative of the population. The sample for non - offenders were collected from in and around Delhi and NCR, while the sample for offenders was taken from Central Jail, i.e. Tihar Jail.

## Measures

To understand the above stated objectives, an one-fold approach comprising of quantitative analysis was undertaken.

The Levenson Self-Report Psychopathy Scale (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995) was designed to measure primary and secondary psychopathy. Primary Psychopathy measures the degree to which participants report affective and interpersonal characteristics that are callous, lacking in emotion, manipulative, grandiose, and glib, while the hallmark characteristics of secondary psychopathy are impulsivity, self defeating lifestyle and typical anti social tendencies. The LSRP is appropriate in a setting in which time is limited. The LSRP is commonly used as a single point measure of antisocial behavior. Conversion of reverse scores to the standardized scores allows for meaningful comparison of sample



groups and individuals within those groups. The summation of scores for each group allows for comparison of mean differences via test. The Buss-Perry Aggression Questionnaire (sometimes referred to as the AGQ or simply the Aggression Questionnaire) was designed by Arnold Buss and Mark Perry, professors from the University in 1992 in an article for the Journal of Personality and Social Psychology. It is a 29 item questionnaire where participants rank certain statements along a 5 point continuum from "extremely uncharacteristic of me" to "extremely characteristic of me".

The scores are normalized on a scale of 0 to 1, with 1 being the highest level of aggression. The questionnaire returns scores for 4 dimensions of aggression: Physical Aggression, Verbal Aggression, Anger and Hostility.

## Results

From the Table 1 we can infer that the  $t=8.84$  (significant at 0.05),  $t=6.14$  (significant at 0.05) and  $t=9.58$  (significant at 0.05) with higher mean scores of the offenders on the Primary Psychopathy (=42.58), Secondary Psychopathy (=25.78) and Total Psychopathy (=68.36) respectively on Levenson's Self - Report Psychopathy Scale with lower means of non - offenders, on Primary Psychopathy (=31.26), Secondary Psychopathy (=20.68) and Total Psychopathy (=51.92) also suggesting that there is higher level of Psychopathy in offenders. It is also seen that the offender mean score is higher on Primary psychopathy which refers to a lack of conscience. People high on this factor are manipulative, consistently untruthful, often use violence in an instrumental way to obtain their wishes, not because they are angry (although many are not violent at all) and generally lacking feelings of empathy and concern, while the lower mean scores on Secondary psychopathy refers to a lack of impulse control leading specifically to antisocial behavior.

The  $t = 4.00$  (significant at 0.05) with mean scores of offenders on the subscale Hostility (= 28.42) is higher than the mean score of non - offenders (=23.08) while the  $t=.011$  (significant at 0.05) with a mean score on the subscale Physical Aggression (=27.98)

is lower than the mean score of non offenders (= 32.3) on the Buss and Perry Aggression Questionnaire suggesting that offenders are more defensive and aggressive along with being more conning and manipulative.

While the  $t = -1.00$  (not significant at 0.05),  $t = -.247$  (not significant at 0.05) and  $t = -.310$  (not significant at 0.05) with mean scores of offenders on the scales Verbal Aggression (=14.48), Anger (=21.08) and the Total Aggression Score (=91.98) respectively is slightly lower than the mean scores of the non - offenders, (= 15.38), (=21.36) and (=92.72) respectively, suggesting the both offenders and non offenders tend to be similar in the way actually they verbalize their aggression along with their overall aggression.

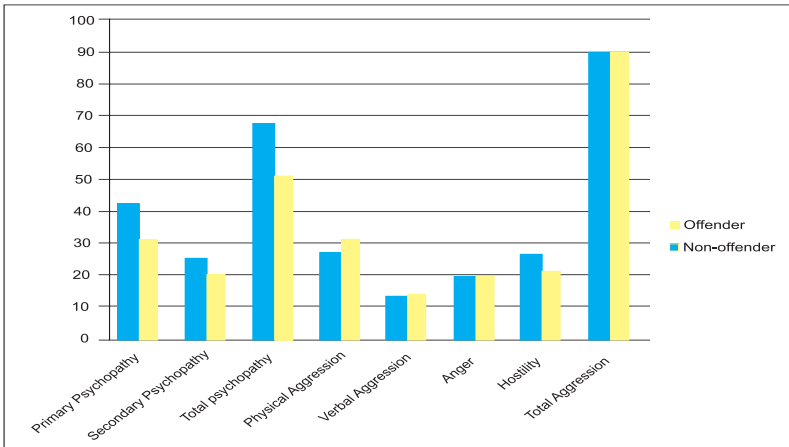
**Table 1: Shows the Mean, SD, SEM and 't' values of Psychopathy and Aggression among Offenders and Non - Offenders.**

	Group	Mean	St. Deviation	St. Error Mean	t-Value
Primary Psychopathy Score	1	42.5800	5.76439	.81521	8.840**
	2	31.2600	6.98339	.98760	
Secondary Psychopathy Score	1	25.7800	4.34384	.61431	6.149**
	2	20.6800	3.94058	.55728	
Total Psychopathy Score	1	68.3600	8.12092	1.14847	9.584**
	2	51.9200	9.00984	1.27418	
Physical Aggression	1	27.9800	8.67201	1.22641	2.605**
	2	32.3000	7.89536	1.11657	
Verbal Aggression	1	14.4800	4.18081	.59126	1.007
	2	15.3800	4.74187	.67060	
Anger	1	21.0800	5.36748	.75908	.247
	2	21.3600	5.93764	.83971	
Hostility	1	28.4200	5.42515	.76723	4.000**
	2	23.0800	7.72444	1.09240	
Total Aggression Score	1	91.9800	11.43659	1.61738	.310
	2	92.7200	12.40151	1.75384	

Group 1- Offenders (N-50); Group 2 - Non-Offenders (N-50)

\*\*\*  $p < 0.05$

Figure 1: Shows the Mean Levels of Psychopathy and Aggression among Offender and Non - Offender Groups.



## Discussion

The present study was undertaken to assess and compare the level of psychopathy and aggression among the sample of 50 female offenders incarcerated in Tihar Central Jail, Delhi and 50 female non - offenders from civil population from, in and around Delhi and NCR. The female offenders were first time offenders within the age group of 20 - 50 years with no history of substance abuse.

As expected, the levels of psychopathy were found to be higher in the sample of the female offenders, with the levels of Primary Psychopathy higher than the levels of Secondary Psychopathy. The high levels of Primary Psychopathy suggest the female offenders do not respond to punishment, apprehension, stress, or disapproval. They seem to be able to inhibit their antisocial impulses most of the time, not because of conscience, but because it suits their purpose at the time. One of the plausible reasons for this could be that since the sample was taken from first time offenders, they did not exhibit overt anti-social behavior and impulsive behavior as exhibited under the Secondary Psychopathy.

A qualitative study on female psychopaths found a number of gender based different behavioral manifestations of the disorder, that is, female psychopaths were seen to be more flirtatious during their manipulations and more likely to manifest impulsiveness as attention - seeking and self - destructive behavior rather than violence and aggressiveness (Forouzan & Cooke, 2005).

Furthermore, the levels of aggression when assessed with Buss and Perry's Aggression Questionnaire (ACQ), the female non offenders were found to be slightly higher on the subscale of Physical Aggression as compared to female offenders, which could be due to the fact they were incarcerated and overt physical aggression could impede their release from the prison. However, the female offenders were found to be higher in subscales of Hostility and Anger, which is consistent with the fact that most, if not all, believed to be wrongly accused and imprisoned. But, both female offenders and non - offenders were found to be almost similar in levels of the subscales Verbal Aggression and Total Aggression. Reverse findings have been found for indirect aggression in females, especially in the adolescent age groups, which is displayed with quite significant more indirect aggression in females than males, though these differences does not follow through into adulthood (Archer, 2004). Studies on females have been regularly found to have lower levels of direct, especially physical aggression (Archer, 2004).

This study, though was not without its limitations. The sample size should have been bigger to have a representative of the population. A longitudinal study studying the effects of psychopathy and aggression for offenders within the prison could not be done due time constraint. Despite efforts, social desirability could have affected the responses of the non - offender groups. It is possible that despite reassurances that no authority would be told of their responses, the offenders could have withheld information. The sample was limited to first time female offenders. The offender's data was only collected from one central jail.

Future research should and could include larger sample to further represent the population. Cultural differences could also be studied among offenders. Gender based comparison could also be studied. A comparison between first time and repeat offenders could also be done. A longitudinal study based on the duration of stay within the prison could also be undertaken. Cross-cultural study could also be conducted in relationship to the offenders.

## Conclusion

The levels of psychopathy were found to be higher in offenders, while offenders seemed to be higher on Hostility and Anger and non-offenders being higher on Physical aggression. But both offenders and non-offenders were found to be almost similar on Verbal Aggression and Overall Aggression.

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# Human Rights of Prisoners – A Perspective

Dr. Aparna Srivastav\*

## Keywords

*Rights, Undertrials, Conviction, Arrests, Judgments*

## Abstract

*Prisoners' rights flow from Universal Declaration of Human Rights, International Covenant on Civil and Political Rights (ICCPR) - the core international treaty on the protection of the rights of prisoners ratified by India in 1979 and the International Covenant on Economic, Social and Cultural Rights (ICESR) which states that prisoners have a right to the highest attainable standard of physical and mental health. The Constitution of India and various statutes such as Prisoners Act 1894, Model Prison Manual 2003 and the judgments laid down in the landmark cases also mention these rights emphatically. While there is no dearth of decrees and precedents, it is the implementation which is weak and calls for augmentation.*

*The objective of incarceration is reformation; a prisoner needs to be treated as a human being first and as an offender later. The prisons should offer conditions that are compatible with human dignity and conducive to social mainstreaming; maintenance of prison systems can be justified if it is able to bring down re-offending by released prisoners. To achieve this purpose, prisons ought to maintain a certain standard of living conditions. Unfortunately, prisons' in India make it a survival struggle for the inhabitants.*

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### Author Intro:

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*Prison management is a crucial part of criminal justice system. The relationship between the prisoner and the prison staff needs to be humanized so that the latter are sensitized to the needs of the prisoners and regard themselves as the caretakers of the inmates. The paper critically examines various challenges like overcrowding, long jailed under trials, health issues and monitoring of prison conditions.*

*The subject becomes all the more significant as the SC has recently given the Centre three months to frame a comprehensive road map for fast tracking the criminal justice system and to take a look at the arrest procedure - whether it could form part of a legislative policy framework.*

**T**he system of prison welfare in the country was set in the context of reformation and rehabilitation of the convicted prisoners. Prison populations, however, till recently remained at the margins of welfare and development. The issues related to welfare of the prisoners and prison management have been examined by numerous expert bodies set up by the Government of India. The most comprehensive examination was done by the All India Jail Reforms Committee of 1980-83, popularly known as the Mulla Committee & by the National Expert Committee on Women Prisoners under the Chairmanship of Shri Justice V.R. Krishna Iyer in 1986 - 87.

### Obligation of States to respect Rights of Individuals

The Fundamental Rights in Chapter III of the Constitution and the rights in international covenants (International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESR) - which are enforceable in India are all human rights as per definition in the Protection of Human Rights Act 1993 (as amended in 2006). Human rights are inherent rights which a person gets when he is born. These rights are inalienable, universal, indivisible and emanate from the ethos and culture of the society. The principle of universality means that rights belong to and are to be enjoyed

by all human beings without distinction of any kind, such as race, color sex, language, religion, political and other opinion, national or social origin, property, birth or other status.

The Universal Declaration of Human Rights states that: "No one shall be subject to torture or cruel, inhuman or degrading treatment or punishment". The ICCPR further states: "All persons deprived of their liberty shall be treated with humanity and with respect for the inherent dignity of the human person". Therefore, both under national as well as international human rights law, the state is obliged to uphold and ensure observances of basic human rights.

### Rights of Prisoners

One of the best tenets of human rights law is that human rights are inalienable and under no circumstances can any authority take away a person's basic human rights. The fact that this tenet is not sometimes made applicable to prisoners is well documented. There are innumerable judgments<sup>1</sup> of Supreme Court and High Courts highlighting the prevalence of highly unsatisfactory conditions prevailing inside the prisons and failure of the prison authorities to provide an environment which is conducive to the maintenance of prisoners' rights. The apathy and the negligence is partly rooted in the belief that the prisoners do not deserve all the rights and the protections that the Constitution provides to all citizens. Besides being morally wrong and legally invalid, this belief does not show adequate recognition of some basic facts about the prison population.

According to data compiled by the National Crime Records Bureau (NCRB) for 2012, out of 3.8 lakh prisoners, 2.5 lakhs were undertrials<sup>1</sup>. Thus a large part of the prison population is not even convicted of any crime. Secondly, even those who are convicts, a large number of them are first time offenders involved in technical or minor violations of law. Very few are recidivists or hardened

<sup>1</sup> SC order to release undertrials will come to aid of Muslim prisoners, TOI, Sept 6, 2014

criminals. Also, as was observed by the Mulla Committee, a majority of the inmates come from the “underprivileged sections of the society, as persons with the means and influence generally manage to remain beyond the reach of law even if they are involved in violation of law.”

## Overcrowding

Overcrowding in Indian prisons is seen as the root problem that gives birth to a number of other problems relating to health care, food, clothing and poor living conditions. Due to overcrowding, inmates have to live in extremely unhygienic conditions, with little concern for health or privacy. Often cells built to house one or two persons now accommodate twice or three times the number. Most toilets are open, denying the prisoner his basic right to privacy and human dignity, and are also dirty. Water shortage being the rule rather than the exception, the toilets prove to be the ideal breeding grounds for health hazards and epidemics. Potable drinking water is another issue which needs to be handled in entirety.

Overcrowding affects the attempts of the prison administration to empower prisoners with skills that would involve them in gainful employment after release. These attempts come in form of workshops where prisoners are taught carpentry, printing, binding, doll-making, typing etc. However, due to the pressing need for space, more and more workshops are being used to house prisoners.

A serious and long term solution to the problem of overcrowding in prisons needs a review of the functioning of the entire criminal justice system, including the system of arrests, sentencing policies and notions of crime.

The National Police Commission had pointed out that 60% of all arrests were either unnecessary or unjustified.<sup>2</sup>

<sup>2</sup> The National Police Commission: The Third Report, Chapter XXII, 1980

One of the reasons for indiscriminate arrest and illegal detention may be the fact that police are in total control of suspects while in police custody. The pressure to solve a particular case is another reason. The police force has neither the time, patience nor the willingness to resort to scientific investigation techniques and adopting professional interviewing methods for solving a case. Lack of infrastructural support is also responsible for lukewarm response to the option of scientific investigations.

Preventive arrests also can be a cause for violation of human rights of the people. There are two noticeable trends. On the one hand, on the pretext of national security, before 26th Jan or 15th Aug, petty criminals or people belonging to a particular community are taken into custody. On the other hand, in order to keep a petty criminal out of police station's jurisdiction, sometimes weapons and drugs are implanted to falsely implicate him and send him to judicial custody for a prolonged period. The same process may be repeated when the person is released from custody. Needless to say, such, 'criminals' get saddled with a track of criminal record during the course. Many of them subsequently become easy targets of extra judicial killings, once a reward is announced on their head.

The preventive arrests are sometimes done in accordance with political directives, especially during situations like emergency or elections. In all such cases, the human rights of individuals and groups become a casualty.<sup>3</sup> Indiscriminate arrests contribute significantly to the problem of overcrowding, also leading to increased expenditure on jails.

Prisons are also being used as multipurpose institutions, to house not only those convicted of crimes but also those who do not need incarceration but medical and psychiatric treatment. Although there are many judgements of the higher courts denouncing the use of prisons as homes for the mentally ill, the practice continues to exist at some places. The National Human Rights Commission

<sup>3</sup> Manual on Human Rights for Police Officers, NHRC, 2011

has noted that this distressing practice is by no means rare: prisoners languish in jail beyond the dates for their release, often because of the negligence of the authorities and sometimes because of their mala fides. In other instances, prisoners are not released despite bail orders from the courts, or re-arrested on other charges immediately after being released.

Large number of persons, including women and children are detained under section 109 of the Criminal Procedure Code for failure to furnish requisite security for good behaviour. This section should be reviewed and amended to restrict its use only in genuine cases, and the practice of using the section to swell up the figures of apprehension by the police needs to be restricted.

A determined will and efforts by the judiciary to reduce the number of undertrials could go a long way in reducing the undertrial prisoners. Further, the existing district level review committee headed by district judge, district magistrate, district superintendent of police and prison superintendent has to be galvanized. The Committee should visit all prisoners in the district once a month and review the cases of undertrial prisoners in jails. Such committees are doing very good work in states like Tamil Nadu and sorting out problems of coordination among the various departments resulting in delay in trials.

## Undertrial Prisoners

India has about 70% of the prisoners as undertrials and many of them are booked for petty offences. Undertrials languish in jails for a variety of reasons, which include repeated adjournments in court, delays by police in investigating, prosecution not being ready, defence lawyers not being prepared, and the review system in jails going defunct, apart from a poor prisoner's inability to arrange for lawyer and bail.<sup>4</sup> As stated earlier, majority of these undertrial prisoners are people from disadvantaged and underprivileged sections of society with rural and agricultural

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<sup>4</sup> Ibid

backgrounds. Lodging undertrials with convicted prisoners leads to what is called "*contamination of crime*". Many inexperienced young men getting in touch with the hardened criminals get coarsened and spoiled. It is known that many of the gangsters recruit members of the criminal gangs out of these borderline, yet redeemable, offenders admitted to jails.

Unfortunately, in many jails of the country undertrial prisoners are placed in charge of convicted officers. Rule 441 of UP Prison Manual provides that convict officers shall be on duty in undertrial wards. This is contrary to basic principles of sound prison management on modern penological lines. Again, constant movement of undertrial prisoners in and out of prisons creates problems for prison administration. Narcotics and other contraband articles are often sneaked into prisons through them. They also become carriers of contagious diseases. In most of the prisons, conditions for providing undertrials prisoners with suitable work on a voluntary basis are non-existent. Since the undertrials are not required to work, the enforced period of idleness has an unsettling and enervating effect on them.

Apart from undertrial prisoners, the other categories of unconvicted prisoners include remand prisoners who have been remanded to judicial custody, but not served with chargesheets to enable commencement of trial; persons under protective custody such as stray children and victims of rape, persons confined under preventive sections of the CrPC sections 107, 109, 110 etc.

The right to life and personal liberty under Article 21 of the Constitution has been interpreted by the Supreme Court of India to include the right to speedy justice along with the right to free legal aid. The right to Legal Aid is now a fundamental right to every citizen. But the quality of legal aid provided to the prisoners as shown by research studies is very poor. Invariably, the lawyers do not follow up the cases and in some cases reportedly ask money from the poor inmates. A system of proper accountability needs to be established to improve the quality of free legal aid. It is also

a fact that many prisoners are deprived of their legal rights due to illiteracy and ignorance of law.

### SC sets 2 month deadline to free long – jailed Undertrials <sup>5</sup>

The SC recently raised a fundamental question about citizens' liberty by asking whether arrest was the only way to bring a person in conflict with law to justice and whether the police have so far used it either "erroneously or onerously." The bench gave the Centre three months to frame a comprehensive roadmap for fast tracking the criminal justice system and asked the Attorney General to take a look at the arrest procedure and whether it could form part of a legislative policy framework.

An important factor responsible for delaying trials is the failure of the agencies to provide security escort to the undertrials to the courts on the dates of trial hearings. The prison department blames the police for failing to provide adequate escort when required. The police, however, have their own problems and cite law and order requirements and security duties for VIPs as having overriding priority in deciding deployment of manpower. The only solution to the problem is for the State Government to provide trained manpower exclusively for prison department's requirement of escorting prisoners. Perhaps the armed police sanctioned for this purpose should always be kept at the disposal of the prison department for escorting prisoners to courts and hospitals. This task could also be delegated to trained jail staff or outsourced to responsible security agencies as is the practice in many Western Countries. The present arrangement is often unworkable and unacceptable from human rights point of view. <sup>6</sup>

Some states like Andhra Pradesh, Tamil Nadu, Maharashtra, West Bengal etc. have now introduced Video Conferencing facilities to deal with the problem of undertrial prisoners. This has saved

<sup>5</sup> SC sets 2 month deadline to free long – jailed Undertrials, Sept 6, 2014

<sup>6</sup> Agony of the Undertrial Prisoners Sankar Sen, IPS (Retd.) Senior Fellow, Institute of Social Sciences

manpower, time and financial resources. The National Human Rights Commission had earlier written to the Chief Justices of High Court requesting them to hold Lok Adalats in Prisons and dispose of petty cases. Some of the Chief Justice had responded positively, but many others were lukewarm. So the move did not prove to be very successful.

Now Section 436(a) of the amended Criminal Procedure Code provides that undertrials under detention, for a period extending to one half of the maximum period of imprisonment for the alleged offence, should be released on the personal bond with or without sureties. (But this will not apply to those who are charged with offences which attract death penalty). This has not resulted in release of a large number of undertrial prisoners because records in jails are not properly maintained. Similarly the plea bargaining system introduced in the 2006 amendment of the CrPC did not have any visible impact in reducing the number of under trials in jail. <sup>7</sup>

A case from ground zero -

**Failing to meet demand of bribe, Mahoba Jailor severely beats an under trial prisoner**

According to a media report on the 22nd September, 2014 a Jailor in Mahoba, Uttar Pradesh stamped an under trial prisoner, released by the court on bail, with a hot iron rod and brutally beat him with a whip before throwing him out of the jail in a semi-conscious state. The reason behind the Jailor's ire was that the under trial prisoner, instead of paying a bribe of Rs.5 thousand to him on the occasion of his release on bail, asked him to deduct the amount from his earnings of Rs.10 thousand in the jail by labour. The National Human Rights Commission took suo motu cognizance of the case and observed that the contents of the press report, if true, raise a serious issue of violation of human rights of the under

<sup>7</sup> Ibid



trial prisoner. Accordingly, notices have been issued to the Director General of Prisons, Uttar Pradesh and Superintendent of Police, Mahoba calling for reports in the matter within two weeks. Reportedly, the court had ordered release of the victim Halke, Son of Bharati Lal Busore, a Dalit and an accused in a murder case, on bail on the 20th September, 2014. Severely injured Halke was admitted in the District Hospital by some other released prisoners. Reportedly, the Jailor has been accused of other such incidents in the past.<sup>8</sup>

## Health Care

According to a study of custodial deaths in judicial custody done by the National Human Rights Commission, it was revealed that a high percentage of deaths were attributable to the incidence of tuberculosis amongst prisoners. In recent times, there has also been a disturbing rise in the percentage of HIV positive inmates. Special and urgent care is required to look after such cases.

Health care of the prisoner should be treated as a special responsibility of the prison administration as the prisoner, in fact, is handicapped by the inability to choose the kind of medical treatment required. There is often little provision for support and succour from family or friends and the prisoner is solely dependent on his custodians to provide him adequate medical facilities. Quite often the prison authorities do not take this responsibility as seriously as they should. Medical checks are routine and complaints of ill-health are not attended to urgently.

Once again the systemic problems come to surface. The sanctioned strength of doctors and para-medical staff in many prisons is much less than what is required. Even this limited strength is not always available as there are invariably a large number of vacancies in the posts of doctors in most prisons. Even in a high profile jail like Tihar, in 1995, out of the seventeen sanctioned posts of medical officers, only six were occupied. Of these six,

<sup>8</sup> [www.nhrc.nic.in](http://www.nhrc.nic.in) dt 12th Oct 2014

two were always on leave. Therefore, for a prison population of 9000 inmates, only four medical officers were available, of which 3 worked during the day and one at night. Non-availability of adequate medical facilities for prisoners is largely due to the lack of full time doctors as well as lack of basic infrastructure, like well equipped ambulances, stretchers, dispensaries, hospital beds etc. sometimes, the prisoner may need expert and urgent medical attention which is not available within the jail premises. Transporting the sick prisoner out in the absence of vehicles and escort in districts sometimes poses a problem. To quote an instance of a prisoner in the Rewa jail, who lost an eye because the cataract could not be diagnosed and attended to in time.<sup>9</sup> Sometimes, when the cells are closed, the warder who has the keys to the cells is not available, as a result of which quick medical aid is not possible in case of an emergency. There has been an instance where the doctor was required to administer injections through the bars as they could not have the cell opened. Thus in many cases, besides lack of resources, it is the existence of a dehumanised system in the prison which contributes to the problem. It is, therefore, important to humanise the relationship between the prisoner and the prison staff so that the latter are sensitised to the needs of the prisoners and regard themselves as the caretakers of the inmates.<sup>10</sup>

The Mulaizha, which is the first medical examination of the individual when he is admitted to the prison, is generally regarded as a mere routine and done perfunctorily. Mulaizha, however, should be detailed and thorough, involving check up of all known and unknown ailments. This is essential as the majority of the prisoners who come from economically disadvantaged backgrounds rarely have complete knowledge of their ailments. The NHRC has evolved a comprehensive format for the initial medical examination of the prisoners.

<sup>9</sup> 8 Report on workshops on 'Prisons and Human Rights' organized at Bhopal by the Commonwealth Human Rights Initiative (CHRI) in collaboration with the Madhya Pradesh Human Rights Commission (MPHRC) in April 1998

<sup>10</sup> Ibid

Drug addiction is on the increase in prisons and in many cases leads to other diseases, such as AIDS and Tuberculosis. The nexus between drugs and crime is getting stronger day by day. The rise in incidence of drug abuse could be related to the rise in corruption and the easy access that miscreant outside may have to inmates. A careful monitoring is needed along with adequately equipped drug de-addiction centres. There is, therefore, an urgent need to get as much aid as possible from civil society and NGOs. NGOs should be encouraged to work inside the prisons and their efforts should be supported and supplemented by those of prison administration.

Besides suffering from physical ailments, the prisoner also undergoes considerable stress and trauma during his stay in prison. Imprisonment is often accompanied with depression and a feeling of isolation and neglect. It was therefore felt that active counselling must be made available to the prisoners to overcome these problems. Counselling should aim not merely at providing temporary relief by pulling them out of their depression, but at instilling hope and a sense of purpose in them and by equipping them with skills that may prove useful upon release.

A thorough overhauling of the arrangements in prisons is required to provide medical care and facilities. Most prisons are not equipped with an effective communication system that would inform the concerned authorities in to seek medical aid in case of emergency.

### Case of Chandan Deonath

Chandan Deonath, had been in judicial custody since Nov 27, 2011. He was arrested by Jharkhand Police in 2007 and was booked under sedition charges suspecting him to be a maoist. He was awaiting completion of trial and was brought from Saraikela prison in Jamshedpur district of Jharkhand after doctors referred him to All India Institute of Medical Sciences, New Delhi for surgery. AIIMS put him on waiting list. There

was no facility in the hospital to keep him admitted for a long time. So he was put on the second floor verandah of Hauz Khas Police Station, New Delhi. His family members were not by his side, he was alone. He could not go to the toilet on his own, being partially paralyzed on the right side. There was no one to assist him in taking food as he lied on the verandah floor. An officer claimed that an undertrial brought for treatment or in transit can be kept at a police station under a system called 'raahdari.' But this is only an interim measure until he is shifted to a hospital or jail. The petition filed by advocates mentioned that the case present a grave violation of fundamental rights under Art 21(Protection of life and personal liberty) of the Constitution. It further said that the Centre, AIIMS, Jharkhand and Delhi Police must fix accountability for the inhuman treatment meted out to the undertrial & the respondents must be directed to institute a mechanism, by empanelling hospitals, and providing the police/jail authorities with its details to eliminate the chances of an incident like the present happening ever again. The HC directed AIIMS to treat the undertrial immediately.<sup>11</sup>

## Mentally Disabled Prisoners

A number of other serious problems relating to the management of jails in the country have been received by the National Human Rights Commission. One such issue was about innocent persons with mental disabilities, who were sometimes held in prisons; in addition, prisoners with mental disabilities were being treated, as were other prisoners, with no effort being made to deal with their distinctive problems. In this connection, the Commission strongly recommended that Rule 82(1) of the United Nations Standard Minimum Rules for Treatment of Prisoners be followed. This requires that "Persons who are found to be insane shall not be detained in prisons and arrangements shall be made to remove them to mental institutions as soon as possible." Further, Rule 82(4) requires that

<sup>11</sup> Treat Undertrial now, HC tells AIIMS – TOI, DT 23rd Sept 2014

“the medical or psychiatric service of the penal institutions shall provide for the psychiatric treatment of all other prisoners who are in need of such treatment.” The Commission endorsed the recommendations made earlier by the Mulla Committee which stated that if a convict undergoing imprisonment became mentally ill, he should be accommodated in the psychiatric wing if such wing exists in the prison hospital, or he should be sent to the nearest mental hospital for treatment. Further, if the prisoner fails to recover from mental illness even after completing half of the maximum term of conviction, the State Government should consider his case for release from prison.

### Case of Charanjeet Singh

On a charge of murder of one Ashok Malhotra some time in the year 1985, Mr. Charanjit Singh was arrested and put in Jail on 28.10.1985 in FIR No. 854/85 under Section 302 IPC, Police Station Adarsh Nagar, Delhi. He was aged 55 years at that time. After the completion of the investigation, challan was filed against him. However, while he was in judicial custody, he was found to be suffering from schizophrenia and thus, trial could not proceed further.

The National Human Rights Commission in 2002 filed an application before the Delhi High Court under section 482 Cr.P.C seeking the quashing of the trial in view of the inordinate delay in the case in reaching a conclusion. The High Court, while observing that it had become clear that the under trial prisoner cannot be tried as there was no chance of reversal of his deteriorating mental and physical condition and no scope of improvement in his condition, quashed the charge sheet against Charanjeet Singh.

As the result of the initiatives by the Commission, offers were made by the VIMHAMS for extending medical facilities and treatment free of cost and by the Help Age India to take over the patient and accommodate him in their half way home or

old-age home after the VIMHANS certified that the condition of the patient was stable.

During the course of hearing the High Court requested the Commission to suggest guidelines to ameliorate the hardships faced by accused persons of unsound mind, and to ensure that their human rights are respected. The Commission accordingly submitted draft guidelines to be followed by all officials concerned.

NHRC has been involved in the supervision of the functioning of the Agra, Ranchi and Gwalior mental health institutions, besides Agra protective homes, as directed by the Supreme Court. The Commission has over the years expanded its mandate to supervise the conditions pertaining to mental health institutions across the country.<sup>12</sup>

## Women Prisoners

A large number of women prisoners were detained in jails as undertrials for a long time. Women, due to their ignorance, are not even getting the benefit of proviso to Section 437 Cr.P.C, according to which they can be released on bail even in non-bailable cases.

Little has been done to attend to the special needs of women inside the prisons. To give one example, the Mulla Committee report of 1983 had recommended that "at every prison where there is a sufficiently large number of women prisoners, (say, 25 or above), a full time lady officer should be appointed. At other prisons arrangement should be made for part time lady medical officers."<sup>13</sup>

Then there is the problem of rehabilitation. Women suffer from a low social and economic status within their own families and find it harder to get back into society upon release than men. The

<sup>12</sup> [www.nhrc.nic.in](http://www.nhrc.nic.in) (Case No: 3628/30/2001-2002)

<sup>13</sup> Report of the All India Jail Committee, 1980-83

destitute women should be equipped with vocational skills and protective homes to be established to provide shelter to them after release.

A majority of women detained in safe custody are not the standard criminal offenders but those who have escaped from a repressive environment of their homes, brothels or criminal gangs. Many of the women prisoners fear that their husbands would no longer accept them after their release from prison. Others complain that they rarely heard from their families or children. The female prisoners should be imparted prison education and training programmes, irrespective of their status as convicts or undertrials, to enable them to face the world after release.

The National Commission for Protection of Child Rights(NCPCR) has recommended that women in jail who are pregnant, ill or have children dependent on them should be considered for early release on personal bonds. The guidelines prepared by NCPCR state that while the nature of the crime cannot be overlooked, the condition of women prisoners should be considered when they have few means and are responsible for young children.<sup>14</sup>

The NHRC recommended frequent opportunities for women prisoners to meet or unite with their families. The Commission also feels it essential to stress that certain key recommendations of the National Expert Committee on Women Prisoners, which met under the Chairmanship of Shri Justice V.R. Krishna Iyer in 1986-87, should be followed up with greater diligence.

Many women and children are detained under section 109 of the Criminal Procedure Code for failure to furnish requisite security for good behaviour. This section should be reviewed and amended to restrict its use only in genuine cases and the practice of using the section to swell up the figures of apprehension by the police needs to be restricted.<sup>15</sup>

<sup>14</sup> [http://articles.timesofindia.indiatimes.com/2008-05-23/india/27771005\\_1\\_womenprisoners-ncpcr-legalaid](http://articles.timesofindia.indiatimes.com/2008-05-23/india/27771005_1_womenprisoners-ncpcr-legalaid)

<sup>15</sup> *Agony of the Undertrial Prisoners* Sankar Sen, IPS (Retd.) Senior Fellow, Institute of Social Sciences

## Other Correctional Institutes

Apart from conditions in prisons the conditions prevailing in other institutions under the control of State Governments “where persons are detained or lodged for purposes of treatment, reformation or protection,” is also worth paying attention to. There are five categories of such institutions: Observation/ Juvenile/Special Homes set up under the Juvenile Justice Act, 1986; Probation Homes set up under the Probation of Offenders Act, 1958; Short Stay Homes/Nari Niketans set up under the Immoral Traffic (Prevention) Act, 1956; Reception Centres/ Beggars Homes set up under the Prevention of Beggars/Begging Act, 1959; and Borstal Institutions set up under the Borstal Act, 1926. Following reports of the death of a young boy in a juvenile home in Delhi in early 1996, NHRC had held a series of meetings and hearings on the conditions in such homes. These were accompanied by periodic inspections and reports on the juvenile homes in Delhi by the Investigation Division of the Commission.

During NHRC team’s visit to prisons in Jalpaiguri, West Bengal in November 2008 under the Human Rights Awareness Programme, it was found that In the Children home - the delinquents and destitute children were kept together. Instances from Nari Niketans have been reported in the media off late, exposing the exploitation and bad living conditions. The correctional homes have to be designed as holistic spaces, where children/persons in conflict with the law find themselves converted into responsible adult/citizens. The concerned agencies need to play a pro-active role in this regard.

## Way Forward

There is a need to educate the prisoners about their rights. Violations in many cases occur because of lack of awareness on the part of prisoners about what they are entitled to. Educating them about their rights would have the effect of empowering them. A Manual/handbook, explaining to the prisoners their rights



and obligations, procedure for lodging complaints, the conduct that is expected of jail administration etc could be prepared in simple language for prisoners' benefit. In fact, such a handbook would benefit the jail administration also by providing them clear guidelines in important areas of their work. The handbook could be supplemented by the efforts of the NGOs working in the area to do legal literacy work amongst prisoners.

The system of prison visitors could provide an effective mechanism to monitor prison conditions provided it worked viably. The system has not been functioning effectively in most places. Either the Boards of Visitors have not been constituted or at places where they exist, they seldom visit prisoners. The ex-officio visitors also do not take their responsibility of visiting prisons, ascertaining prisoners' grievances and providing redress seriously. The visitors should be chosen from amongst those who have an interest in prisons and knowledge of how they should be chosen from amongst those who have an interest in prisons and knowledge of how they should be run. These could be members of the media, social workers, jurists, retired public servants etc.

Police regulations on arrest have been there in some form of the other in Cr.PC. The D.K.Basu Guidelines on Arrest are yet to be followed religiously.

The judicial officers need to be encouraged towards the various provisions, for giving bail and ensuring speedy trial. The investigating agency should make special efforts to provide legal aid wherever necessary.

For the convicted persons, the Reformation-correction and Rehabilitation should be worked out with the development departments, to expose them to the skills, which will find them better employment opportunities, once they are outside the custody. There have been good examples tried out in different parts of the country and there is a need is to encourage this.

The prison conditions should be made more humane for women, aged and mentally ill prisoners. The regular check ups and special

provision for the mentally ill prisoners has been taking a back seat in the arrangements made in the jails. NHRC's recommendation needs to be followed in letter and spirit. The State Governments need to ensure that the mentally ill prisoners are kept separately and necessary medical treatment be provided to them.

There should be *zero tolerance* for any violation of human rights in custody. In cases where misconduct or guilt of police personnel is established, it could be ensured that the penalties imposed should be commensurate with the misconduct/guilt.

Further, assistance should be taken with Legal Services Authority for speedy trial and release of the detained persons. Measures should be taken to fix the diet on the basis of nutritional content, rather than the prevailing monetary criteria.

Another pre-requisite for ensuring accountability is to establish an effective complaint system that would encourage prisoners to complain against systemic and other failures within the prison system without fear of retribution. Once a complaint is made, there should be a quick and impartial enquiry followed by redressal if the complaint is found to be true. No attempt should be made to suppress wrongdoing and anyone found guilty of abusing his authority must be suitably dealt with. If appropriate disciplinary action is taken, not only does the prisoner feel that his or her rights have been upheld but it also sends a warning to other staff that poor conduct will not be tolerated.

There are a range of other issues that need as to be addressed such as the low prison personnel-population ratio as compared to the countries having more effective justice delivery systems, welfare and rehabilitation of custodialised populations, and creating accountability systems for all stakeholders working in this sector. In many cases, besides lack of resources, it is the existence of a dehumanized system in the prison which contributes to the problem. It is, therefore, important to humanize the relationship between the prisoner and the prison staff so that the latter are sensitized to the needs of the prisoners and regard themselves as the caretakers of the inmates.

In the ultimate analysis, deterrence as a tool to bring down criminal deviance has been repeatedly found to be inadequate. Reformation seems to be the only rationale for incarceration. The objective for civilized governments when they formulate a sentencing policy is to examine how to prevent recidivism. The maintenance of prison systems system can be justified only if strategies are devised, to bring down re-offending by released prisoners. One way of doing this is to create an ambience within prisons that encourages good conduct on release. As overcrowded prisons promote disorders among a vast majority of prisoners, resultantly few prisoners understand the distinction between criminal conduct and good citizenship that is based on adherence to law and respect for fellow citizens.<sup>16</sup>

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# Relevance of Community Policing in Manipur

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## Keywords

*Community Policing, Ethnic Problem, Insurgency, Village Defence Force.*

## Abstract

*Crime in our society is going up day by day. One of the most popular mode of policing to counter the increasing rate of crime is community policing. Community policing aims to establish partnership between local police and the people they serve. It is kind of policing in which the community and the police help each other in maintaining law and order, and solve community problems in the society. Many states and UT's have undertaken various initiatives to practise community policing in their respective states and UT's. This study attempts to examine the challenges for law enforcement agencies in Manipur and understand the concept of community policing there. Further it provides suggestions for effective implementation of community policing in the state.*

## Introduction

The paper has been divided into three parts: Challenges for law enforcement agencies in Manipur are discussed in part I. In part II, concept of community policing, its component and initiatives taken by Manipur Government is discussed.

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Suggestions for the effective implementation of community policing in Manipur has been discussed in part III.

## Part 1

### Challenges for Law enforcement agencies in Manipur

The peace and order are pre-requisite for any state for progress and development. The state Manipur which was once described as the jewel of India, Switzerland of the east, a flower on the lofty height and paradise on earth has been facing serious law and order problems in recent times. There is a serious threat to the peace, order and stability due to many problems. The main problems are Insurgency, drugs and ethnical problem.

The emergence of insurgency in Manipur can be traced to the formation of Naga Socialist Council of Nagaland (NSCN) in the early parts of 1950s. The insurgency groups of Meitei communities were started in the 1960s with the formation of United National Liberation Front (UNLF) on 24th November 1964. After that many insurgent groups like the People's Liberation Army (PLA), founded on September 25, 1978, People's Revolutionary Party of Kangleipak (PREPAK) set up on October 9, 1977 and the Kangleipak Communist Party (KCP) that came into being in April, 1980 have emerged in the valley areas consisting of four districts of the State. Following ethnic clashes between the Nagas and Kukis in the early 1990s, a number of Kuki outfits were formed. Several other tribes, such as the Paite, Vaiphei and Hmars have also established their own armed groups. Similarly, Islamist outfits like the People's United Liberation Front (PULF) have also been founded to protect the interests of the 'Pangals' (Manipuri Muslims).<sup>2</sup> Presently there are 35 (12 active, 18 at ceasefire and 5 inactive) insurgent groups operating in the State of Manipur. And the main objective for every underground group (UG) is to get independence and have their own separate nation.

The problems of insurgency help in pushing up the rate of unemployment in the state. The case of extortion has also become common in the state as all the insurgent groups have extorted

money from all places including educational institutes, health centres, private farms and well to do peoples. The act of extortion of UGs has reached to such an alarming stage that every person has to negotiate with them. Naga insurgent groups which are operating from the hill districts have been demanding taxes on the use of the roads in the two National Highways (NH-2 and NH-37) of Manipur and give punishment on not paying. There are also incidents of killing of non-Manipuris by the militants

Between 1992 and 2012, at least 5,841 people were killed in insurgency related incidents in Manipur. However, the number of fatalities is showing a decreasing trends. In 2008, there were 485 insurgency-related fatalities which decreased to 416 in 2009, in 2010 it fell down to 138, in 2011 it get down to 65 but in 2012 it increased to 111.<sup>13</sup> Details of insurgency related killings in Manipur for the last ten years is given in the following table.

**Table no. 1**  
**Insurgency related killings in Manipur for the past ten years**

Year	Civilians	Security Personnel	UG's	Total
2003	27	23	148	198
2004	40	41	127	208
2005	138	50	143	331
2006	107	37	141	285
2007	150	40	218	408
2008	131	13	341	485
2009	77	18	321	416
2010	26	8	104	138
2011	25	10	30	65
2012	25	12	74	111
Total	746	252	1647	2618

Source: SATP<sup>4</sup>

Another big problem of Manipur is problem of drugs. The state of Manipur shares a long 352 kilometers international border with Myanmar in the east and south with upgraded hill tracts which

only provide foot size passes and through these passes drugs are smuggled from Myanmar to Manipur. Then the narcotic drugs known as heroin is further smuggled to other parts of India. A small portion of the heroin being smuggled through Manipur is consumed locally. Thus, drug addiction is becoming one of the main problem in Manipur. It has become a threat only second to underground movement in the State. Drug addiction claimed many lives of boys and girls.

Alcohol is another form of intoxicant widely used in Manipur. The Scheduled caste of Manipuri society such as people of Sekmai, Andro, Phayeng, Khurkhul are making alcohol as traditionally and culturally in their house. From these places the local liquor are supplied. There are thousands of liquor addicts in the state. And, Spasmo Proxo (SP) tablet is another intoxicant item which is used by many youngsters in the society. The tablet has almost the same intoxicating effect with heroin.

Nowadays, beginner abusers of Manipur are switching on to cheap and easily available substances such as Dendrite and correction fluids (Kores Eraz-ex) to enjoy self-satisfaction. The changing trend calls for urgent attention of parents for saving the young siblings from destruction of mindset.<sup>5</sup>

Internal ethnic problems also create a big challenge for the law enforcement agencies in Manipur. Manipur is a land with many different ethnic groups which comprises of 29 recognized tribes belonging to Nagas, Kukis, Hmars and Korns. The Meiteis and Meitei Pangal (Muslim) are the general class people. In Meitei community also there are many scheduled caste group of people. The main problem is that, the people of every community formed groups themselves to make themselves bigger and stronger. It resulted in ethnic conflict among the groups in the society.

In a state like Manipur of the present day, communities started forming their own armed groups firstly, to guard the community from the onslaught of the bigger communities so that they would not be succumbed to, in the hands of another community at times



of ethnic clash as happened during 1990s between Meiteis and Muslims Nagas and Kukis all over the state and the Kukis and Paites in Churhandpur District.<sup>6</sup>

And, currently the much covert Meitei-Naga tension shows the complexity of the relationship and the factors determining the same. The prominent cause for the development in the latter is due to fast expanding 'Naga nationalism.'<sup>7</sup>

The community based organizations of Manipur have been very influential and have often played significant role in the containment of conflict. When the news of the visit of NSCN-IM general secretary Thuingaleng Muivah to his native village Somdal in Ukhrul district of Manipur on the first week of May 2010 spread all the civil organizations of Meitei community like Meira Paibis (women torch bearers), All Manipur United Clubs Organization (AMUCO) and United Committee of Manipur (UCM) protested and demanded the state Government not to allow Muivah to enter Manipur. The Manipur State Cabinet on April 30, 2010 decided not to allow entry of Muivah in Manipur as it considered that there were possibilities of disturbances in the state if the NSCN-IM leader came to Manipur. After the Manipur government denied entry to Muivah, various Naga tribal groups such as All Naga Students Association, Manipur (ANSAM) and United Naga Council (UNC) launched an indefinite economic blockade in National Highways of Manipur.<sup>8</sup> Such kind of problems are becomes very common in Manipur.

From the above discussions, it is found that Manipur has many problems and in addition to these problems, Manipur has the fourth highest rate (32.4) of violent crimes in India but, it has recorded highest rate (27.4) of IPC crimes as reported by National Crime Record Bureau (NCRB) in 2011 and it is also recorded that Manipur has the lowest rate (11.7) of disposal of IPC crimes by the Police. It can be said that there is an urgent need of change in the functioning of law enforcement agencies, particularly Police in Manipur. In this situation, the Community Policing is the most

suitable system and it would help in reducing crime rate and maintenance of law of order in the state.

## Part II

### What is Community Policing?

Community policing is a philosophy that promotes organizational strategies, which support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime.<sup>9</sup> It is a style of policing in which community renders their share and contributes ideas in the society by assisting the police in preventing crime and disorder and promotions of security. Under the new concept, crime control and law and order management are recognized as truly participative function, with the total involvement of the community or the local neighbourhood with the police in identifying and resolving issues that give rise to crime and disorder. Thus, community policing aims at achieving more effective crime control with the involvement of community of the area. It is generalist rather than a specialist style of policing, emphasizing a co-operative relationship between the police and the community. The effectiveness of this type of policing is measured in the degree of public co-operation received and by the absence of crime and disorder in the society.

### Components of Community Policing

There are three components of community policing namely;

1. **Community Partnership**
2. **Problem Solving**
3. **Organizational Transformation**

**Community Partnership:** Community partnership signifies adopting a policing perspective that surpasses the standard law enforcement emphasis. This enlarged outlook recognizes the value of activities that contribute to the orderliness and well-being of a neighbourhood. These activities could include: helping accident or crime victims, providing emergency

medical services, helping resolve domestic and neighbourhood conflicts (e.g., family violence, landlord-tenant disputes, or racial harassment), working with residents and local businesses to improve neighbourhood conditions, controlling automobile and pedestrian traffic, providing emergency social services and referrals to those at risk), protecting the exercise of constitutional rights (e.g., guaranteeing a person's right to speak, protecting lawful assemblies from disruption), and providing a model of citizenship (helpfulness, respect for others, honesty, and fairness). Building trust needs persistent efforts and effective public relation campaigns. But trust must be achieved before police can assess the needs of the community and construct the close ties that will engender community support.

**Problem Solving:** Problem solving is a broad term that implies more than simply the elimination and prevention of crimes. Problem solving is based on the assumption that "crime and disorder can be reduced in small geographic areas by carefully studying the characteristics of problems in the area, and then applying the appropriate resources." And on the assumption that "Individuals make choices based on the opportunities presented by the immediate physical and social characteristics of an area, By manipulating these factors, people will be less inclined to act in an offensive manner."

**Organizational Transformation:** The changes that a community policing agency must make in its management, organizational structure, personnel practices, and technology and information systems in support of community policing are referred to as organizational transformation. The community policing philosophy focuses on the way that departments are organized and managed and how the infrastructure can be changed to support the philosophical shift behind community policing. It encourages the application of modern management practices to increase efficiency and effectiveness. Community policing emphasizes changes in organizational structures to institutionalize its adoption

and infuse it throughout the entire department, including the way it is managed and organized, its personnel, and its technology.

## Community Policing Practices in India

The concept of Community Policing has been gaining momentum in India too and several Police organizations across the country have been adopting this concept over the years. The Mohalla Committee Movement Trust is one of initiatives taken by Mumbai Police after the 1992-93 Hindu Muslim riots that paralyzed Mumbai (Bombay). The primary task of the committee members is to maintain more than cordial relations between the two communities, largely Hindus and Muslims. The Parivar Paramarsh Kendra, which was started on 10<sup>th</sup> October 1995 by Madhya Pradesh Police focuses on resolving family conflicts. It is done by identifying the causes that contribute to family discord. Community Policing in Assam was started on 3<sup>rd</sup> July 1996 when a meeting of the citizens under Panbazar Police Station in Guwahati to discuss the concept of neighbourhood watch scheme and promote community participation in policing. The initiative was known as Prahari. Maithari is an initiative which was launched in 2000, by the Andhra Pradesh Police throughout the state. The mission of Maithri was to render courteous, compassionate and caring responsive police personnel and increase public confidence in police with respect to maintenance of peace and order and build in a feeling of safety from crime. The Friends of Police (FOP) is a holistic and pro-active concept that lends a psychological approach to policing. It was started in 1993 in Ramnad District of Tamilnadu. Any member of the public, male or female who is not involved in civil or criminal case can become a member of FOP. The members of FOP can provide useful information leading to solving of crimes. FOP members can also prevent any abuse of police power because of easy accessibility to the station house officer and other senior personnel. Sahatya is an experiment that has been conceived as a service delivery platform to resolve, through counselling, disputes within family and also between

neighbours. Community involvement has been kept as its prime objective. It started in 2001 in Nadia district, West Bengal. Punjab Police on the recommendations of Punjab Governance Reforms Commission has launched a community policing initiative called Saanjh Project in 2011. Through Saanjh Project, the citizens are provided dignified access to Police related services and a forum to implement community oriented programmes. In UT Chandigarh the Police have been undertaking Community Policing initiatives from time to time. It has established a Cell named Community Relations Unit (CRU) for this purpose. Some of the Community Policing initiatives of Chandigarh Police include the Neighbourhood Watch Scheme; Mass Contact Programme with the community leaders; opened Facebook Profile where citizens are asked to post information/photographs of Traffic violations; 'Young Heroes for Safe City' - a programme for sensitizing the residents of the city about crime and their preventive measures by involving youth; and organization of Sports activities like a Golf Tournament and Gully Cricket League.

### Community Policing Practice in Manipur

As the law and order situation in Manipur is poor, the system of community Policing is very important in the state. But, no Community Policing initiative has ever been practiced formally in Manipur till now. However, the Village Defence Force (VDF) can be regarded as a kind of Community Policing as it was started with the participation of community in the maintenance of law and order in the state.

### Village Defence Force (VDF)

Village Defence Force is an initiative taken by the Manipur Government for the participation of community in order to face the problems of UGs in the villages. The Village Defence Force (VDF) came into existence in Manipur in 2009. The VDF force is a result of the incident at Heirok village of Thoubal District. During the festival of Holi in 2008 in an incident some armed

Underground Persons fired in a crowd and killed some innocent peoples. After the incident the people of Heirok demanded the arms to protect themselves from such kind of crisis and they alleged that they had reached the limits of patience of being abused by Underground (UG) outfits.

In response to the demand of the people of Heirok the Manipur Government approved recruitment of 300 Special Police Force (SPO). A select group of young men of Heirok were selected and trained briefly prior to their deployment as Special Police Force (SPO) in Heirok under police command. The original concept was to give basic weapon handling training and a modest monthly stipend, and that these SPOs were to operate within their locality, under police command, to nullify UG excesses.

In January 2009 the State Government took a decision to convert the SPOs to VDF and also agreed to recruit VDF for other districts also. Then SPO was renamed as Village Defence Force (VDF) and the original concept was reviewed as a means of providing temporary employment with basic monthly incomes to the unemployed youth. A person has to undergo a three month training course.<sup>10</sup>

In the initial period the VDF personnel were deployed only in the valley districts but now they are deployed in all the districts of Manipur. There are 10,009 VDF personnel are working in Manipur. The details of district wise deputation is given in the following table:

**Table no.2**  
**Details of Number of VDF personnel in districts of Manipur**

S.No.	Name of the District	Number of VDF personnel
1	Imphal West	2050
2	Imphal East	2050
3	Thoubal	2500
4	Bishenpur	1350
5	Churachandpur	600

S.No.	Name of the District	Number of VDF personnel
6	Chandel	300
7	Ukhrol	300
8	Senapati	559
9	Tamenglong	300
10	Total	10009

Source: The Imphal Free Press<sup>11</sup>

The VDF is not a separate organization. They are more like a force and have to help the police in maintaining law and order in the state. They are attached to the District Police Headquarters of the state. The VDF personnel are posted in their posts which are located in the different villages of Manipur. The numbers of personnel are different as per the population of the district. There is no rank system in VDF force. They are regarded as the same rank.

### Functions of VDF

The main function of the VDF is to maintain law and order in the particular village or town in which they are posted and to help the police in protecting crimes in the village. The main functions of the VDF are given below:

- To protect the village from any antisocial elements.
- To maintain law and order in the village.
- To help the people of the village particularly in times of crisis.
- To work as a link between police and citizens.
- To help other security forces when needed.

### Drawbacks of VDF

The VDF were meant to serve in the villages but, most of the personnel are posted in the towns of the districts. The force was established to protect the villagers from any trouble in the village, posting in the towns gives no sense at all.

The VDF personnel were given only three months training as compared to the nine month training which are given to police personnel. After that he is introduced into service alongside regular police personnel. How can a common man consider them as par police personnel?

The introduction of VOF has resulted into another problem for public. VOF personnel received only Rs.4500 (inclusive all the allowances) as a result VDF men have continuously abused whatever little authority entrusted upon them to collect money from the civilians. Some cases of VDF personnel for wrongdoing are discussed below:

- On 15<sup>th</sup> August, 2011 a tussle was broke between villagers of Chairenthong, Imphal East District and VDF personnel as one rickshaw driver was allegedly pushed into the river by VDF personnel and drowned to death.<sup>12</sup>
- In another case, A 20-year old youth of Sagolband Bijoy Govinda, Imphal West District suffered a bullet injury on the left leg in firing by a Village Defence Force (VDF) personnel deployed for duty in the area on 28<sup>th</sup> September 2011<sup>13</sup>.
- One personnel of Village Defence Force was arrested by personnel of IRB posted at Sagolband Tera Kheithel along with 53 pieces of SP Capsule and 8 pieces of N-I 0 tablets on 21<sup>st</sup> March 2012.<sup>14</sup>
- On August 25, a VDF personnel was caught with a stolen Honda Activa near Model Club in Chingamakha by the locals<sup>15</sup>.
- In yet another case, one VDF personnel posted at Manipur Central Jail, Sajiwa and functioning as mess commander was arrested while trying to smuggle four packets of Khaini in his jungle boots inside the jail on 2<sup>nd</sup> November 2012.

From the above discussion, it is found that the Village Defence Force (VDF) was started with the aim that it will work as a link



between police and citizens and help the citizens at the time of crisis. But, it turned out to be problematic rather than a solution to the problem as many cases of wrongdoings have been reported against the VDF personnel. In present scenario Village Defence Force (VDF) cannot be treated as the community policing system prevalent in different states of India. The beauty of the system, the purpose it serves, the style of functioning are not found in these organization. So far, they are not able to do their jobs. The need of the hour is to establish a cordial relationship between police and people as involvement of the community is very important in maintenance of law and order and it will surely help in the introduction of community policing initiatives in the state which is very important for a better future. Some suggestions for the effective implementation of Community Policing in Manipur are given below.

### PART III

#### Suggestions for effective implementation of Community Policing in Manipur:

- In the state like Manipur, the urgent need is to establish a Community Relation Unit to bring out community policing initiatives in the state. The State Government and Police should bring out some agreement to practice community policing in Manipur.
- The Police department need to conduct crime analysis, host focus groups and surveys. Because these analyses will help them in developing more informed approaches to reduce the crime disorder problems and introduction of community policing.
- Community engagement is a primary element in community policing strategy. So, Police department should make partnership with the civil organizations of Manipur regarding the community policing initiatives. It will help in more participation of community.

- The Police departments should use educating the community as a tool in advancing community policing. Through education, community members will become knowledgeable about crime-prevention techniques and become better able to act as a partner in crime prevention and reduction efforts with law enforcement.
- The Police department should open Public Grievance Cell at every police station. It will help in understanding the problems of the community.
- The Police department has to initiate the community policing practices through coordinated efforts of school and college students and other wings like NSS and NCC. The concept of community policing should be introduced in the school and college syllabus.
- The Police department must organize games and sports and other campaigns regularly for the participation of community.

Lastly, in the state like Manipur where the rate of crime is very high, crime prevention should be recognized as an important police function. But the police can do little without community cooperation and assistance. So, the police must take the initiative and show the way to assist the community to meet its responsibility.

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# Public Perceptions of Community Policing: An Empirical Analysis of Friends of Police Movement in Tirunelveli City, Tamil Nadu

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## Keywords

Public Friendly Policing, Friends of Police, Public Involvement, Fear of Crime, and Feedback from Public.

## Abstract

*There is emergent need to change with what public perceives and hold notions regarding police accountability and public's willingness to cooperate. Due to continuation of colonial policing structure, the image of policing has deteriorated and also has elevated the fear of crime. However, modern forms of policing such as community policing and problem oriented policing are put into practice in certain areas, which is helping to improve the police image. There is a need to study whether such modern policing methods are really working to improve the police image. Keeping this in mind, the present study is conducted to analyze how public friendly policing such as 'Friends of Police Movement' in Tamil Nadu could help in addressing aforementioned issues. The study was conducted in Tirunelveli city of Tamil Nadu with 120 respondents from the public using purposive sampling method (especially from those areas where 'Friends of Police' has been operational) by using a questionnaire. The results showed that "Friends of Police movement" has*

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*helped in improving 'police image', 'public's willingness to cooperate' and reduced 'fear of crime'. This study has practical implications in the policy making and will assist the policy planners to mitigate crime and improve police image by community policing methods, such as Friends of police.*

## Introduction

**P**olice organization has been stigmatized ungraciously, by all the comers of society, and it has evoked a dire need to restructure policing, from the recruitment stage to professional training. In the wake of public concern on the shortcomings of conventional policing (Williamson, 2008), innovative strategies such as community policing which conceptually included 'people friendly approach' (Sarre, 1997) were implemented across nations.

Public friendly approach is much needed because Indian policing is facing problems such as political interference, scanty budgetary allocations, demoralizing promotion mechanisms, lack of adequate facilities for family, minimal holidays, excessive physical and psychological stress and frequently found engaged in unconditioned operations (Raghavan, 1989). Singh (2006) felt that, Indian police is 'ruler's police' and not 'public's police', that shows the accountability of police actions is for rulers of society where each action taken by police is meant not to disappoint ruling class of society. He further illustrated on ruling class enslaving police organization through postings, transfers and favored promotions, and all these irrational discretionary control affects badly down the line on morale of police. Also, this result in the use of excessive force on common man by the police, and corruptive practices and for these reasons, the public innately fears to approach the police.

A people friendly police will reduce the fear among the public to reach the police for assistance and also public friendly approach

of police will secure victim/family members from further trauma (secondary victimization). The importance of rearing virtues of public friendly policing became clearly evident in 'Jan Maitri' policing which was initiated in 2008 in Kerala. In this project, the constables are the backbones and they undertake a self-satisfying and public friendly approach of duty. Their major tasks were: punctually patrolling their specified territories, meeting common people and discussing their minor problems, visiting far-flung areas to meet people there and giving them reassurance of any kind of possible assistance, giving basic training to school children, helping cancer patients and running an eye hospital (Nalla & Madan, 2012).

In Tamil Nadu, public friendly policing was introduced by Mr. Philip V. Prateep (IPS) in 1993 with an aim to uplift police image by making police more interactive with community to open up channels for feedbacks leading to subsequent refinement of policing strategies (Philip, 2012). The 'Friends of Police' strategy was introduced with a notion of building intelligence network in rendering proactive policing which would be only be possible by public willingness to cooperate, and that will emerge only when public perceive police as their friends, not an authority. The objectives of 'Friends of police' in making Tamil Nadu police more public friendly are:

- Promoting crime prevention related awareness programs
- Promoting public education workshop in instilling civic responsibilities
- Enabling standard mechanisms for feedback from public
- Active assistance from public to solve neighborhood problems
- Police organization's internal reformation in making it more transparent and approachable to community (Philip, 1996)

## Need for Present study

There is dearth of empirical studies in the area of community policing (Fielding et. al, 2006) and being a promising strategy (Gottfredson et, al. 1997), it is important to examine extent of community policing effectiveness. To analyse community policing, public perception plays a vital role (Schafer et, al., 2003) as it represents outcomes of implemented strategies. For this reason, this study took public perception of Tirunelveli city to examine Friends of Police movement and find out further scope for improvements in it. Understanding dynamics of FOP will not only show that whether it works or not but also help building indigenous literature to flourish scope of future researches in community policing from Indian perspective. The findings of this study represent the current community opinion/understandings of FOP, serving as empirically tested feedback, showing scope for further refinements in existing FOP movement.

## Methodology

The present study aims to analyze the perceptions of public towards friends of police movement in Tirunelveli city, Tamil Nadu. Purposive sampling design was used to collect responses from 120 respondents through questionnaire designed to analyse public perceptions on likert scale. The respondents were chosen from locations where 'Friends of police' is active. Software Package for Social Science (SPSS) was administered for data analysis that primarily includes reliability testing of 'public friendly policing' construct and regression to isolate unique variables contributions of 'public friendly policing' construct on outputs of 'Friends of Police' constructs.

## Data Analysis

The construct of 'Public friendly policing' was tested for its reliability based on respondent's perception on various constituting variables which cumulatively represented public friendly policing.

## Reliability of 'Public friendly policing' construct

**Table 1.1:** Reliability score of 'Public friendly policing' construct

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.887	8

The alpha value of the 'public friendly policing' construct is high (0.887) showing high reliability, a further CITC analysis is done to check further scope of improvement in alpha value by deletion of specific variable.

**Table 1.2:** Corrected Item- Total Correlation values for contributing variables in cumulative reliability of 'public friendly policing' construct

Item-Total Statistics			
	'Public friendly policing' construct	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	Public Trust in Community Policing	.823	.857
2	Police's Friendlier Approach	.584	.881
3	Police Legitimacy	.506	.886
4	Police Involve Public in Problem Solving	.490*	.889*
5	Public not Hesitant to Communicate with Police	.661	.873
6	Feedback is taken from Public	.821	.857
7	Actions Taken after Feedback	.807	.858
8	Mannerism of police	.646	.879

Values for public involvement in problem solving are retained for CITC value closer to .05 and also It does not improves alpha value significantly.



Item number four, i.e. 'police involve public in problem solving' could be deleted from further analysis as it have slightly low CITC score (0.490) and also its deletion will faintly improve the overall alpha value of 'public friendly policing' construct (from 0.887 to 0.889) but it is retained for further analysis because of its significant importance in understanding this variable's unique contributions through regression in output variables and also deletion of this: variable does not improves alpha value to a very greater extent. Hence, on justifiable discretionary basis all the variables are retained for further analysis.

### Analysis of public friendly policing impact On 'Police Image' in Tirunelveli city

Table 2.1: Anova analysis for validation of proceeding with regression of 'public friendly policing' on 'police image' in Tirunelveli city

ANOVA <sup>b</sup>			
Model		Sum of Squares	Sig.
1	Regression	95.261 (93.55%)	.000a
	Residual	6.572	
	Total	101.833	
a. Predictors: (Constant), Mannerism of police, police's friendlier approach, police involve public in problem solving. police legitimacy, public not hesitant to communicate with police, feedback is taken from public. public trust in community policing, actions taken after feedback			
b. Dependent Variable: mean of police image			

Anova analysis (Table 2.1) validates (Sig. value of 0.000) the further analysis of estimating public friendly policing impact on police image with high regression value of 95.261 (93.55%). The low residual values (9.527) suggests that public friendly policing itself plays a significant role in forming police image in Tirunelveli city.

Table 2.2: Regression analysis to isolate unique variables contributions under ‘public friendly policing’ impact on ‘police image’ in Tirunelveli city

Coefficients <sup>a</sup>			
Model		Standardized Coefficients	
		Beta	Sig.
1	Public Trust in Community Policing	.081	.092
2	Police’s Friendlier Approach	.057	.114
3	Police Legitimacy	.045	.128
4	Police Involve Public in Problem Solving	.161	.000*
5	Public Not Hesitant to Communicate with Police	.135	.001*
6	Feedback is taken from Public	.114	.010*
7	Actions taken after feedback	.004	.931
8	Mannerism of Police	.614	.000

a. Dependent Variable: mean of police image

\*Values showing variables having significant impact on police image

Table 2.2 shows individual variables which are significantly contributing towards public perception of police image in Tirunelveli city.

**Analysis of ‘public friendly policing’ impact on ‘public cooperation’ in Tirunelveli city**

Table 3.1: Anova analysis for validation of proceeding with regression of ‘public friendly policing’ on ‘public cooperation’ in Tirunelveli city

Anova <sup>b</sup>		
Model	Sum of Squares	Sig.
Regression	39.730 (69.72%)	.000a
Residual	17.252	
Total	56.981	

a. Predictors: (Constant), Mannerism of police, police’s friendlier approach, police involve public in problem solving. police legitimacy, public not hesitant to communicate with police, feedback is taken from public. public trust in community policing, actions taken after feedback

b. Dependent Variable: mean of cooperation

Anova analysis (Table 3.1) validates (Sig. value of 0.000) the further analysis of estimating public friendly policing impact on public cooperation with considerable regression value of 39.730 (69.72%). Small residual value (17.252) suggests that public friendly policing is having significant impact on public willingness to cooperate with police in Tirunelveli city.

**Table 3.2: Regression analysis to isolate unique variables contributions under 'public; friendly policing' impact on 'public cooperation' in Tirunelveli city**

Coefficients <sup>3</sup>			
Model		Standardized Coefficients	
		Beta	Sig.
1	Public Trust in Community Policing	.263	.012
2	Police's Friendlier Approach	-.073	.347
3	Police Legitimacy	.101	.111
4	Police involve Public in Problem Solving	.139	.033
5	Public Not hesitant to Communicate with Police	.002	.979
6	Feedback is taken from Public	-.064	.500
7	Actions taken after Feedback	.480	.000'
8	Mannerism of Police	.150	.066
a. Dependent Variable: mean of cooperation			

\*values showing variables having significant impact on public cooperation

Table 3.2 shows individual variables which are significantly contributing in public cooperation with police in Tirunelveli city.

**Analysis of 'Public friendly policing' impact on 'fear of crime' in Tirunelveli city**

Table 4.1: Anova analysis for validation of proceeding with regression of ‘public friendly policing’ on ‘fear of crime’ in Tirunelveli city

ANOVA <sup>b</sup>		
Model	Sum of Squares	Sig.
1 Regression	55.130 (64.62%)	.000 <sup>a</sup>
Residual	30.180	
Total	85.310	

a. Predictors: (Constant), Mannerism of police, police’s friendlier approach, police involve public in problem solving. police legitimacy, public not hesitant to communicate with police, feedback is taken from public public trust in community policing, actions taken after feedback

b. Dependent Variable: mean fear of crime

Anova analysis (Table 4.1) validates (Sig. value of 0.000) the further analysis of estimating public friendly policing impact on fear of crime with substantial regression value of 55.130 (64.62%). Similarly considerable residual value (30.180) suggests that there are other external factors apart from friendly policing that are also there playing crucial part in public perceiving fear of crime.

Table 4.2: Regression analysis to isolate unique variables contributions under ‘public friendly

Coefficients <sup>a</sup>		
Model	Standardized Coefficients	
	Beta	Sig.
Public Trust in Community Policing	.265	.020
Police’s Friendlier Approach	-.086	.306
Police Legitimacy	.141	.040
Police involve Public in Problem Solving	.151	.032
Public not hesitant to Communicate with Police	.002	.985
Feedback is taken from Public	-.053	.603
Actions taken after Feedback	.381	.001
Mannerism of Police	.186	.035

\*Values showing variables having significant impact on fear of crime.

Table 4.2 shows individual variables significantly contributing in public perception of fear of crime under 'public friendly policing' in Tirunelveli city.

**Table 5: Overall significance of public friendly policing in Tirunelveli on police image, public cooperation and fear of crime among residents of Tirunelveli city**

Name of variables under the construct of 'public friendly policing'	Police Image	Public cooperation	Fear of crime
Public Trust in Community Policing		*	*
Police's Friendlier Approach			*
Police Legitimacy	*	*	*
Police involve Public in Problem Solving	*		
Public not hesitant to Communicate with Police	*		
Feedback is taken from Public		*	*
Actions taken after Feedback	*		*

\*mark is placed in those columns which in aforementioned tests (Table 2.2, 3.2 & 4.2) showed significant relation between public friendly policing and three variables under examination (police image, public cooperation and fear of crime).

## Findings

Public friendly policing in Tirunelveli city showed significant relation with public perception of police image (Table 2.2). It is found that in Tirunelveli city, police image is contributed by level of public involvement by police in problem solving, approachability of police, police taking feedback from public and conduct of police with public. The willingness of public to cooperate with police was found to be improved when public trust the police in their locality, when police opens channels for public to actively participate in solving problems and when redress mechanism for public problems are intact (Table 3.2).

Similarly, fear of crime is perceived to be reduced by Tirunelveli city respondents when there is trust in police and police are seen as legitimate. active public involvement and good conduct of police while taking feedback from public Table 4.2). Overall it is found (Table 5) that when police involves public in solving problems then it directly reflects on better police image, public cooperation and reducing fear of crime. The variables such as public trust in police and effective redress mechanism after feedback seem to strengthen police cooperation level and instill sense of security among respondents of Tirunelveli city.

## Discussion and Conclusion

Public perception of policing is an indicator of success or failure of community policing strategies (Reisig & Giacomazzi, 1998). For this reason, public perceptions are examined in this study to understand the impact of Friends of Police movement in Tirunelveli city and it expands one of the previous study done in this area (Jaishankar, 2010). The outcomes of community policing can be empirically indicated through police image, public partnership and level offear of crime (Greene & Decker. 1989). The regression analysis showed various independent variables having significant contributions in forming police image, willingness of public to cooperate and fear of crime.

Numerous studies have shown the improvement in police image after implementation of community policing (Eck & Rosenbaum, 1994). In Tirunelveli city, the police image is found to be significantly dependent on the level of public involvement in problem solving, as Reisig and Giacomazzi (1998) stated that police image improves when community members are actively involved in strategy formulations, especially in case of neighborhood problems. This study validates one of the earlist works in this area (Radelet & Reed, 1973) which showed strong correlation between three aspects: police image, police approachability and police mannerism. This study shows that feedback from public

too holds importance in forming better police image as stated by Bordua and Tiffit (1971) that organized feedback procedures from public give community members a sense of police which is concern about community problems which leads to restructuring better police image.

Public cooperation is fundamental criteria of community policing (Nalla & Madan, 2012) and in Tirunelveli city, trust in police is one of the important factor in deciding public partnership. Murphy, Hinds and Fleming (2008) stated that the willingness of public to partner with police depends on public's confidence and trust in police. If public trusts their local police, then it becomes easier for police to get better cooperation, intelligence and support towards sharing common responsibilities (Mitra & Gupta, 2008). Now, looking at the trail of community policing implementation, public cooperation is initial requirement of community policing and feedback is ultimate procedure, but despite their polarity they are interlinked. Feedback from community members further refines community policing strategies and let public get closer to police in sharing their perceptions and issues, leading to better outcomes and encouraging active public cooperation (Philip, 1996).

Instilling better sense of security among residents is prime objective of community policing (Innes, 2004) and fear of crime is a reliable indicator of assessing effectiveness of community policing in prevention of crimes (Tilley, 1995). In this study, fear of crime among community members of Tirunelveli city was found to be dependent on trust in police, police legitimacy, public's involvement in problem solving, feedback from public and police conduct. Many studies in the past suggested corroboration of public's perception of fear of crime with police conduct and trust in police (Mirande, 1980), where as police legitimacy found to have relation with trust in police (Tyler, 2004), which shows an indirect relation here. Adding to previous literature, this study demonstrated contribution of level of public's involvement as a significant activity in reducing fear of crime.

The Friends of Police movement in Tirunelveli has been operational since 1993. For the past two decades, the collaboration of Tamil Nadu Police and Community members have achieved commendable landmark in community safety (Philip, 2006) but still there is scope for further refinement in FOP strategies which are indicated in this study. A careful planning and dedicated implementation with regular follow-ups hold the potential of attaining safe and secure life for all.

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# Automated Traffic Monitoring And Challaning System

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## Keywords

*Traffic, Automated Monitoring, Challan, System. xyz*

## Abstract

*Automated Traffic Challaning System system has proved to be effective for enforcing traffic rules. This system has the advantage of using technology with least human intervention. This system of traffic enforcement is very effective and has gained public acceptance and support.*

**T**he spectacular growth of vehicular traffic in India during last two decades has resulted into traffic congestion, pollution, longer journey time and increased road accidents. This is due to rapid urbanization, unprecedented growth of industry, commerce and employment in urban areas, especially cities. Thousands of vehicles have been added to roads every day without commensurate infrastructure development. Today Indian Metros like New Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad have between them nearly 20 million vehicles. The resulted scenario is that, there are too many vehicles occupying roads. Therefore, the greatest challenge for City Police Managers is Traffic Management on par with maintenance of order and prevention of crime.

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The situation has arisen largely owing to an inadequate appreciation of the nature and type of a whole range of problems. Some of the significant problems leading to traffic congestion in Indian cities are:

- rising demand for travel due to increase in population and other activities;
- concentration of land use in certain areas such as central business districts and office areas;
- mixed nature of traffic;
- inadequate facilities segregating slow traffic;
- insufficient road space;
- inadequate width of pedestrian sidewalks and their encroachment by hawkers;
- inadequate facilities to meet the heavy demand for parking requirements;
- lack of road sense and indiscipline on the part of road users;
- ineffective enforcement measures;
- inadequate funds to meet the increasing demand for essential improvements; and
- non-existence of a specific organization with specialized personnel to deal with traffic problems.

The above problems have largely contributed to huge traffic congestion in almost all Indian cities. Though majority of traffic problems is due to faulty urban planning by civic agencies, traffic police is most often blamed for chaotic traffic situation.

Apart from enormous growth of vehicles, poor traffic enforcement is one of the causes for traffic congestion and poor discipline on roads. Road users do not follow traffic rules as violation is a rule not an exception. The old manual challaning system prevalent in most of the cities is not effective, as deterrence level is minimum.

In manual challaning system, there is no mechanism to punish repeat offenders. The system is also not transparent as manual booking system breeds corruption and harassment.

The existing Traffic Enforcement System has the following shortcomings;

- Existing system of manual booking of traffic violation cases consumes lot of time and energy.
- As enormous time is required for manual challaning the traffic violators, Traffic Police officers do not give adequate time for traffic regulation and clearing traffic jams.
- Manual system of booking of traffic violation case is not transparent. It facilitates corruptive practices.
- In manual system, there is no record of previous traffic violations by the drivers. Due to this, repeat offenders escape higher penalties.

There is a scope for pilferage and misappropriation of fine amount collected by Traffic Police. Many a times unscrupulous police officers use duplicate receipt books.

In order to bring transparency in challaning traffic offenders, Bangalore City Traffic Police started the Enforcement Automation Centre in the year 2002. **In Mysore City Automated Traffic Challaning System was introduced in September 2013.** In this system, violation of traffic rules by road users is captured on cameras and computerized Challans are sent to the owners of vehicles to pay up traffic fines.

In the days to come, it serves as an effective tool in reducing *police- public* interface. This system has several advantages like;

- It brings transparency in enforcement of traffic rules
- Avoids conflicts between police and public
- Increase awareness of traffic rules and regulation
- Reduction in the processing time of violation and disposal of the same

- It helps in identification of repeat violation and imposing enhanced fine
- It can be used as an effective tool of e-governance to manage, monitor and administration.

## How does this system works?

### Main Automation Centre

The Automation center depend on the computerized process of capturing the violations through various inputs discussed below, processing the inputs reported from the police personnel of the Police Station, complaints by the public(SMS, E-mail, Facebook), Analysing the Live images/Videos captured by the Enforcement/ Red light Camera, Field Traffic Violations noted by the Traffic Police Personnel on the field etc. All these inputs are fed into a centralized Database server accessed through the workstation by the personnel at the automation center.

The data so collected and organized properly is made available to all Police Stations over Internet and can also be accessed by Blackberry enforcement Devices provided to the personnel on the Field. This facilitates the general public to go to the nearest police station or to the Traffic personnel with Blackberry enforcement device to pay fine and compound the offences attributing to the “Anywhere Anytime” Fine collection and disposal mechanism.

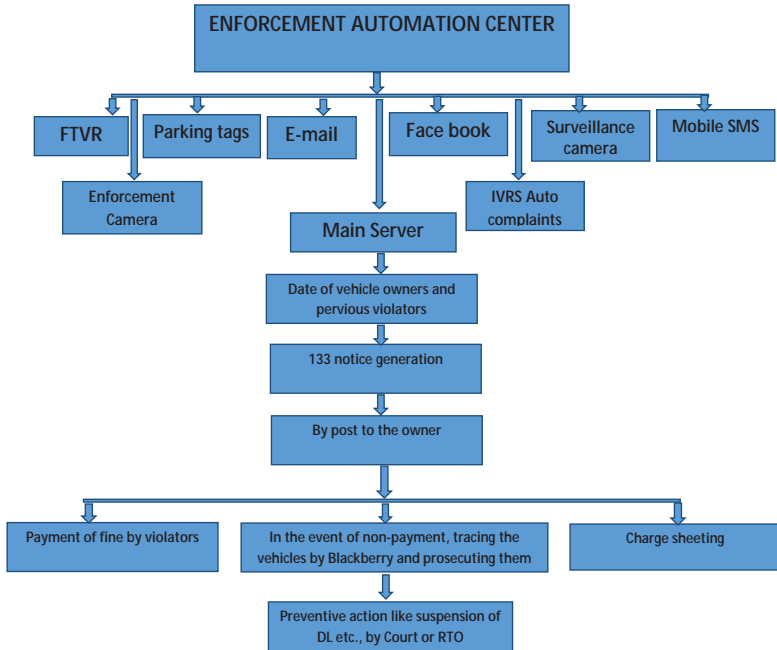
Basically this systems works by the inputs given by

- 1) Enforcement/ Red light Camera
- 2) Surveillance camera
- 3) Field Traffic Violation Reports through digital cameras
- 4) Public complaints through
  - a) IVRS
  - b) G-Mail
  - c) Facebook
  - d) Public-Eye

- i. **Red light camera** is a traffic camera that captures the image of a vehicle that goes through an intersection when the light is red. This continually monitors the traffic signal and the camera is triggered by any vehicle entering the intersection above the preset minimum speed and following a specified time after the signal has turned red. The image of captured vehicle's registration number is perused and fed manually to the computer. The address of the Vehicle registered with the RTO is obtained through an interface with the RTO's Vehicle registration Database, along with details like, the owner of the vehicle, Make, Model, Class of vehicle. Based on the address obtained, a Notice Vide Sec 133 of IMV Act is generated in an automated process, in which the details like Owner of the Vehicle, Date and time of Violation, make model, the fine amount and location, where the violation was noted are printed and sent to the Owner on the address.
- ii. **Surveillance camera(s)** installed at junction provide live video streams/still images to the Traffic management Center via a leased line network. The personnel at the automation look through the videos, still images and note down the violation. The Surveillance cameras are PTZ cameras and hence the personnel have flexibility of viewing the video/ Images in various angles, enabling them to view the Images/ Video with clarity while noting the violation. Some of the violations noted are - not wearing helmet, crossing stop line, parking on zebra crossing etc., After carefully observing the violation, the same is updated into the violation database for further processing.
- iii. **Field Traffic Violation Report:** This involves the constabulary noting down the details like the Registration Number, Type of Vehicle, Color and Make in a pre-printed proforma called FTVR (Field Traffic Violation Report). The data on the FTVR is fed in computer at the police station and sent to the Automation Enforcement Center equipped with computers, software and vehicle database provided by the M.V Department.

These violations are processed as earlier for surveillance camera and 133 notice is generated.

- iv. **Public complaints** which came to the traffic police through various models are processed as earlier and 133 notices is generated.



### How 133 notice are served and compounded

Notices are served through the post and sometimes they are served through the police personnel. If the owner of the vehicle pays the fine it gets deleted in the server. If not it comes up in the Blackberry handset of traffic officer. If the owner wants to clear the pending fine he can do so by any of the following method;

1. Payment at any traffic police station
2. Payment through any traffic ASI, PSI, PI in the field
3. Automation enforcement Center / TMC



## Implementation Strategy

In order to implement Automated Traffic Challaning System in a city with a population of one million, the following deliverables are required:-

- i) Database server and its connectivity with Transport Department server
- ii) 100 Nos. hand-held enforcement devices along with Bluetooth enabled printers
- iii) Back-end connectivity between handheld devices and database server through a service provider.
- iv) 50 Nos. surveillance cameras with connectivity to Traffic Management Center
- v) 4 Nos. Enforcement cameras with connectivity to Traffic Management Center
- vi) 200 Nos. digital cameras with online connectivity facility through a service provider to data base server.
- vii) Printed blank challans for generating notices under Section 133 of IMV Act.
- viii) 75 Nos. Traffic Police Officers of and above the rank of Assistant Sub Inspectors of Police.
- ix) 250 Nos. Head constables / Police constables
- x) Computer trained Police constables to man Traffic Management Center and Automation Center

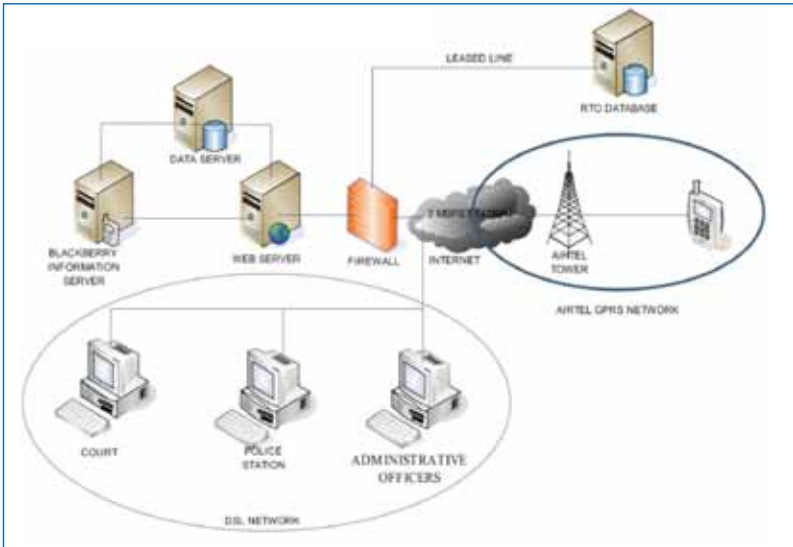
## System Architecture

### Traffic Enforcement System Architecture

- The solution enables traffic field personnel to access the backend infrastructure through a mobile handheld with ease in a high secured manner
- The handheld application will have the capability to print data from the screen on a Bluetooth / Wi-Fi enabled printer

- Push technology for data transfer. 'Always ON feature'.

## Network Architecture

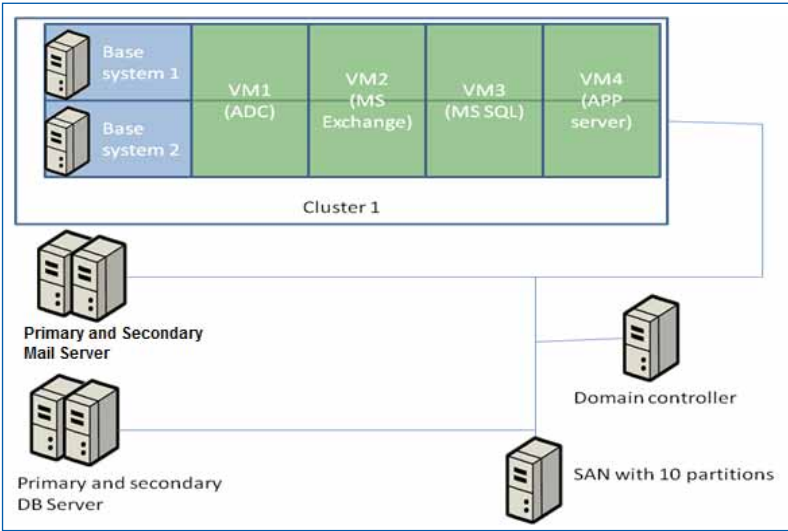


- The handheld devices with application will be using mobile packet data network (GPRS/EDGE/3G/4G) to reach the servers placed at State Data Center
- The application sitting on the handheld enables the officers to collect fines online
- In case of any network issues or server related issues, the data gets stored on the handheld and gets uploaded to the server automatically once the network connectivity is restored

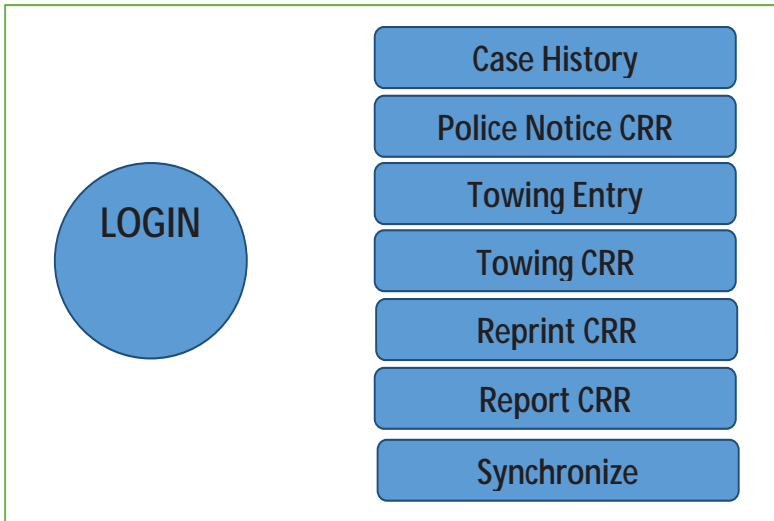
## Server architecture

- Redundant infrastructure to enable with high availability
- Application Servers
- Data Base Servers
- Mail Servers

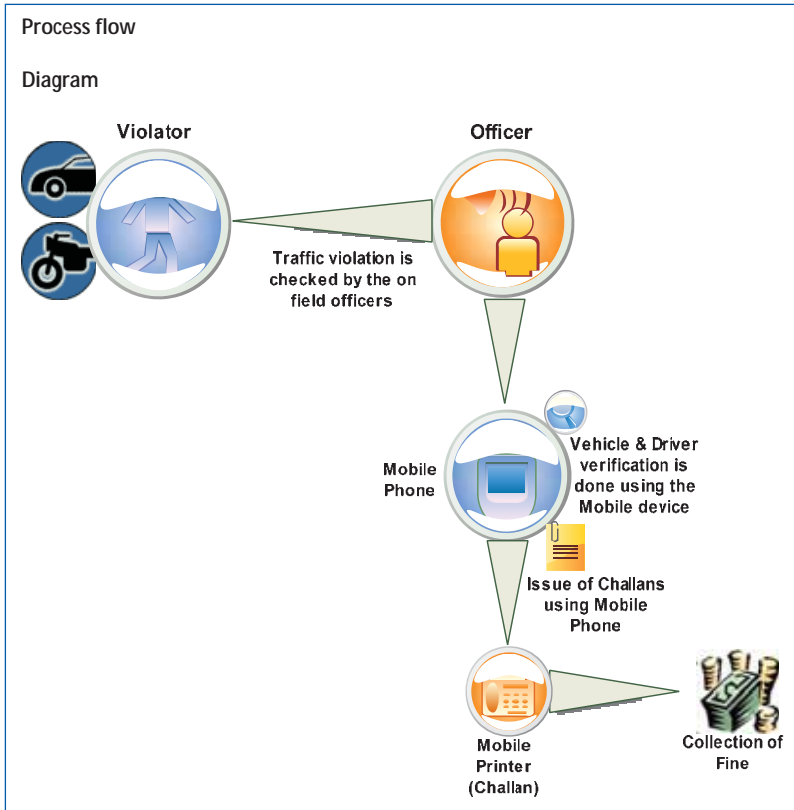
- Storage



Features of the Enforcement Application Software:



## Process flow Diagram



## Typical Management Information System Reports

Reports will be provided to senior officers to monitor the activities. Web reports will be provided with the login and password to protect the data from unauthorized access. A hierarchy based MIS report sub modules can be designed as per the state police requirement.

Following are the reports that are generated for MIS purposes:

- Vehicle wise offences daily/monthly or weekly reports
- Police station wise offences
- Station wise case booked report

- Station wise amount collection report
- Station wise issual of police notice and ON THE SPOT FINE
- Station wise Charge sheet generation report
- Officer wise case booked and fine amount collected report
- Subdivision wise reports
- Report on cases booked and fine collected report
- Report of Cancellation of licenses
- Suspension & revocation for permit

### Financial Implication

In a city of one million population the financial implication will be as follows;

(Rs.)

Hardware/ Software	Component	Qty	Cost (in crores)
Hardware	Surveillance Camera with leased line connection (Costing for passive components not considered like Poles, Civil works, UPS & Batteries / Solar system)	50	5.00
	Enforcement Cameras	4	1.00
	Servers	4	0.20
	Computers	60	0.30
	Printers	10	0.25
	Network Storage		0.30
	Handheld Devices	100	0.15
	Handheld Printers	100	0.28
	Back-end connectivity for handheld devices for 3 years		1.20
	200 Nos. Digital Cameras with back-end connectivity for 3 years		0.24
Software	IVRS software		0.20
	Automated Challan Generation		0.30
Others	Printing		0.30
	Manpower		0.50
	Integration of all Equipments		0.10
	<b>Total</b>		<b>10.32</b>

## Conclusion

Bangalore Traffic Police under B-Trac project has already implemented Automated Traffic Challaning System from the year 2003. Some other cities also have initiated Automated Enforcement in a limited way. On an average, Bangalore Traffic Police books around 8000 traffic violation cases through cameras and another 8000 through hand held Blackberry devices. Bangalore Traffic Police have booked over 7.4 million cases against traffic violations in the year 2014 and have collected a fine amount of Rs. 65 crores during the same period. Bangalore Traffic Police is presently using 5 Enforcement Cameras, 175 Surveillance Cameras and around 500 digital cameras for online booking of cases. This system has brought dividends for Bangalore Traffic Police in the form of greater transparency and effective enforcement of traffic laws. Apart from this, the ready availability of data on past violations has enabled Bangalore Traffic Police to send 4587 driving licenses for suspension.

Since September 2013, Mysore Police has generated 4,50,000 notices against violations of traffic rules through automation enforcement. Bangalore Traffic Police generates more than 20 lakh notices each year. Automated Traffic Challaning System can be adopted in other Indian cities and can be used as effective e-governance tool in managing and monitoring traffic related issues in various cities and towns across the country.

The Automated Traffic Challaning System is a revenue generating model. The initial investment of Rs. 10.32 Crores for a city of one million population can be recouped within one year. This is due to fine amount collected from violators of traffic rules through Automated Traffic Challaning System. Therefore, entire system is self-sustaining and does not require any funds for expansion. The State Governments should be asked to give back all the fine amounts collected to police for expansion of the programme within the city.



# Contribution of NSG Towards Capacity Building of Police Forces

Col. B.S. Negi\* & Col. SS Bhati\*\*

## Keywords

*NSG, Contribution, Police Forces, Capacity Building*

## Abstract

*The State Forces and CAPF would be the First Responders to counter the challenges of LWE or Counter Terrorist in their respective states. Better capability will definitely help them address a crisis situation with more confidence. The NSG, based on guidelines of MHA, has conceptualised and implemented specialised modules for the "Training of Trainers" of these forces.*

***Give a man a fish and you feed him for a day.***

***Teach a man to fish and you feed him for a lifetime : Anonymous***

## Introduction

**T**he nature of the Constitution of India mandates law and order as a subject of the state. Therefore, the bulk of the policing lies with the respective states and union territories of India. At the federal level, many agencies belonging to the Union Ministry of Home Affairs, support states and Union Territories in their duties.

The National Security Guard (NSG) was set up in 1984. Since its raising, NSG has conducted several surgical operations. In 1980s,

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NSG took a lead role in Counter Insurgency operations in Punjab, J&K, and elsewhere in India. Op Black Thunder-II was conducted to rescue hostages and evict terrorists from Golden Temple. In this operation 30 terrorists were killed, and 217 surrendered. Op Black Hawk, a heliborne operation was carried out in the Mand Area of Punjab to neutralise two terrorists. Similarly, Op Mouse Trap, for area domination in Taran Taaran District in Punjab. These operations displayed high standards of professional competence of NSG. During that time, the State Police was lacking in training and operational experience. Subsequently, regular interactions and operations in conjunction with the NSG enhanced their confidence and capacity to conduct such operations on their own.

Over a period of time, the State Police and CAPF have gained considerable experience and enhanced their capacity to conduct such operations on their own. Some of the states are learning from past experiences and have taken remedial measures to counter the challenges of terrorism. After the Mumbai terrorist attacks of 26/11, the role of NSG in tackling such situation was analysed and it was decided to form Regional Hubs of NSG in four metro cities to counter such situations and bring down the response time. It was also a need of the hour that each state develops its own specialised teams to tackle the challenges. Accordingly, Force One Mumbai came into existence. Similarly, other states have trained and developed their own specialised forces which are being trained with NSG. Now, the NSG is only asked to operate when the activities of terrorist assume serious proportions. This is a result of enhancement of capacity of the State Police Forces. The NSG has considerable contribution toward building such capability of the Police Forces.

## Mandate for Capacity Building

### Present Arrangements for Capacity Building

Now, the Training Centre, NSG has been entrusted with following training assignments for State Police and CAPFs.



- (a) Counter IED Training and Post Blast Study.
- (b) Training in anti-terrorist operations both in built-up areas and jungles, VIP security, PSO duties, bomb detection and disposal.
- (c) Counter-Terrorist Exercises and Training of Teams between State Special Forces and NSG, under guidance of Training Centre, NSG.

## Role of NSG Training Centre

The primary role of the Training Centre, NSG is to conduct the probationary training of army as well as CAPFs inductees and prepare them for induction into the Special Action Groups and Special Rangers Groups. This training is conducted in the form of 12 week long conditioning courses (CC). However, half of the training load at the Training Centre comprises of Capacity Building Courses for State Police/CAPFs personnel, as also selected army/police personnel from friendly foreign countries.

In the very recent past, an additional responsibility assigned to Training Centre has been that of "Joint Training" between NSG and the Counter Terrorist Units of States/CAPFs. This model has two facets i.e. a "Counter IED Training Capsules" conducted in the states by NSG trained instructors of State Police under expert guidance of NSG and Joint Training Exercises at NSG, Manesar, between HITs of NSG and State Counter Terrorist Forces. This model has commenced with a favorable response and will help further to promote better operational capabilities as well as enhance mutual understanding and inter-operability.

## Capability Building Endeavors

**Police Commando Instructor Course (PCIC).** The aim of the PCIC is to train the teams of CAPFs/ State Police in anti-terrorist operations and also to create a nucleus of instructors for CAPFs/ State Police, to enable them to carry out further commando training in their respective organisations. Over a 12 week course trainees achieve high level of physical fitness and mental toughness. They

undergo training with focus on unarmed combat, reflex shooting, knowledge of Counter Terrorist Techniques, Special Operations. Special emphasis is drawn on improvement of instructional abilities. The course helps the representatives of CAPFs and State Police to gain confidence in planning and execution of sub unit level tactical operations in LWE as well as Counter Terrorist environment and also to understand the role of first responders in crisis and facilitate deployment of NSG.

**'Special Operations in Jungle.** Jungles comprise a substantial portion of the land mass in LWE affected states. At Manesar Garrison, in a relatively compact training area - tall grass, shrubs, nalas and the Aravali Hills provide virtually a full range of jungle terrain and vegetation. With its signature four-week SOIJ Course, NSG trains the police personnel to serve as anti-naxal force in LWE affected areas. They are taught the basics of tactics, survival and counter IED training in the first two weeks then advance to section, platoon, and company level tactical exercises over the next two weeks. The objective is to instill confidence in them to plan and execute sub unit level tactical operations in Counter Insurgency and LWE in jungle terrain.

**VIP Security -Course.** Aim of the course is to train personnel in VIP Security techniques and enable them to subsequently perform and impart training in their respective organisations. The terminal objectives include, achieve proficiency in mobile and static security techniques for security of High Risk Persons, high levels of precision firing skills, ability to protect and evacuate Protected Person from a hostile/fire-fight environment, achieve basic knowledge of protection of VIP from IED threat and basic skills of UAC. This is one of the most popular courses, especially with a growing demand for VIP security in the country.

**VIP Driving (Basic and Advance).** Selected drivers of high risk personnel further improve their capabilities to achieve a high degree of proficiency in offensive and evasive driving skills at Training Centre, NSG. The terminal objectives of these courses

are to develop advanced driving skills, knowledge of VIP Security Drills, ability to negotiate obstacles and successfully evade attacks on the vehicles and to protect the high risk person from all types of threats while on the move. We need to further promote this training activity, as one of the special expertise only with NSG.

**Counter IED (Basic, Advance and Refresher).** By this courses Police Forces are imparted explosive training and knowledge related to search, detection, recognition and neutralization of IEDs. The terminal objectives of the course include basic knowledge on modus operandi of ANE's, explosives, their effects and storage aspects, make them proficient in search technique and render safe the procedure of post Blast Investigation and also ability to perform in-situ disposal of unexploded ordinance. Now the NSG is also assisting the states to conduct its own courses in their respective training centers.

**Post Blast Study Course.** This course is conducted to upgrade the threshold knowledge on post blast investigations. The trainees are imparted with knowledge on forensic science and techniques involved. The crime scene management training makes them capable to impart training and handle post blast investigation teams and bomb disposal squads in their respective states.

## Conclusion

The expertise of the State Police and CAPF instructors in the field of commando skills, bomb disposal, VIP Security and Evasive Driving Techniques are being further honed and enhanced for Capacity Building. Moreover, such efforts of capacity building by NSG would add potency and lethality in CAPF and State Police Forces, in the days to come.



# Corruption: A Major Problem Before Criminal Justice System

Prof. Pradeep Singh\*

## Keywords

*Black Money; Corruption; Criminal Justice System; Greed; Money Laundering; organized gang; Proceeds of Crime; Public Servant; Society; Transparency.*

## Abstract

Corruption is menace for society, societal development, and faith of citizenry in law and rule of law. Problem of black money and money laundering are by-product of corruption. Corruption affects infrastructural development, ultimately the whole economy of country. In India in last two decades corruption has become major challenge before the society making consequence of public agitations and demand for enactment of law and establishment of independent enforcement machinery. To check the problem of corruption and related problems many enactments have been passed and many offences with deterrent punishments have been created but corruption is multiplying day by day resulting in hampering of national development and loss of public faith in law, government, governmental policies and governmental actions. For effective check on corruption it is needed that legal provisions should take into consideration causations. Main causations of corruption are greed, materialism, moral and professional degradation, and change in marker of status (now money has become marker). These causations should be addressed effectively. Creation of new penal statutes is not solution but it is needed that law

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enforcement machinery should be strengthened and law enforcement should be made effective and speedy. Social measures are very effective in coping corruption problem.

**C**orruption is worldwide problem causing devastating impact over society, societal development, and faith of citizenry in law and rule of law, problem of black money and money laundering. Both the developed and developing nations are affected by alarming increase in corruption but impact of corruption in developing countries is more devastating. In developed countries society is properly developed, therefore corruption does not hamper infrastructure development. In developing countries like India, corruption affects infrastructural development, ultimately the whole economy of country. In India in last two decades corruption has become major challenge before the society making consequence of public agitations and demand for enactment of law and establishment of independent enforcement machinery. To check the problem of corruption and related problems, many enactments have been passed and many offences with deterrent punishments have been created but corruption is multiplying day by day, resulting in hampering of national development and loss of public faith in law, government, governmental policies and governmental actions. News in print and electronic media are replete with scams involving thousands and thousands crore rupees like 2G scam, s band scam, coal scam etc., prima facie showing involvement of persons responsible for making law and policies and enforcement of law and order. In these situations, it is compelling requisite to analyze causations and legal regime relating to corruption to find out effective measures to tackle corruption.

### Corruption Defined

Evidences of existence of corruption in ancient and medieval periods are not lacking but in modern society corruption has attained and it is attaining devastating shape affecting the

development in developing society and at the same time giving rise to various other types of problems and crimes. Term 'corruption' is generally used to denote abuse or misuse of power by public servants. Corruption includes instances when public servant misuses power to provide undue benefit to any person or abuses power to deprive any person from his due benefit or take illegal gratification to do or not to do assigned lawful duties. Corruption is committed for personal gain. For personal gain public servant deviates from his lawful duties and commits abuse or misuse of his lawful powers:

“(i) acceptance of gratification as reward for work done in official capacity, (ii) obtaining any object or pecuniary advantage illegally, (iii) fraudulent misappropriation of public property, (iv) being in possession of financial resources or property disproportionate to one’s known sources of income, (v) misuse or abuse of official position, (vi) ‘borrowing’ money for purchasing a costly article from a person with whom one has official dealing with a ‘known’ understanding that the ‘borrowed money’ will not be returned, (vii) accepting gifts by ‘persons of position’ from persons with whom he has positional relation, (viii) disregard or neglect of rules purposely to help the citizens in avoiding dues/ tax/ duty due to be paid to government, (ix) refusal to do a duty on some plea which may benefit the other party.”<sup>1</sup>

Corruption not only affects whole developmental process of the country but also of every citizen. Now in era of globalization corruption occurring in one country not only affects that country but also other countries. Corruption has become global problem with global impact. Corruption is committed when public servant who has legal responsibility to work according to law, to implement rule of law, to enforce public policy and to realize welfare of citizens; instead of doing these commits abuse or misuse of his positions and powers for his own benefit or to provide undue benefit to any other person or to deprive any person from due benefit. Corruption is committed for money gratification or some other personal gains:

“Corruption means willingness to act dishonestly for money or personal gain. This may be bribery, immorality, unprincipled acts and deeds, dishonesty, and abuse of public trust and political power. A corrupt person is one who indulges in immoral acts, bribery, dishonesty, or abuse of public trust for money or personal gain, without any scruple. A corrupt person may be a politician, businessman or a public servant.”<sup>2</sup>

Corruption has become not only a major problem but also mother of other problems, therefore, immediately it requires attention of society and legal machinery to tackle in effective manner. Corruption is declared as crime by various statutes and considered as most heinous because it is committed by the public servant who has responsibility to check the corruption, to protect the citizenry, to look after development of the society, to promote rule of law and to do the welfare of common mass. Corruption erodes public faith in law and government. Corruption is wider term encompassing a number of activities like bribery, embezzlement, fraud etc. Usually in corruption two parties are involved – public servant and victim but sometimes only one person participates - public servant. Corruption is committed for personal gain:

“Corruption is defined as the use of public office for private gains, or in other words, use of official position, rank or status by an office bearer for his own personal benefit. Following from this definition, examples of corrupt behavior would include: (a) bribery, (b) extortion, (c) fraud, (d) embezzlement, (e) nepotism, (f) cronyism, (g) appropriation of public assets and property for private use, and (h) influence peddling”.

In this list of corrupt behaviour, activities such as fraud and embezzlement can be undertaken by an official alone and without involvement of a second party. While others such as bribery, extortion and influence peddling involve two parties – the giver and taker in a corrupt deal. The two party type of corruption can arise under a variety of circumstances. Often mentioned are concerned with the following:

- Government contracts: bribes can influence who gets the contract, the terms of the contract, as well as terms of subcontracts when the project is implemented.
- Government benefits: bribes can influence the allocation of monetary benefits such as credit subsidies and favoured prices and exchange rates where price controls and multiple exchange rates exist. Bribes can also be important in obtaining licenses and permits to engage in lucrative economic activities such as importing certain goods in high demand and in short supply. Moreover, bribes can be employed to acquire in-kind benefits such as access to privileged schools, subsidized medical care, subsidized housing and real estate, and attractive ownership stakes in enterprises that are being privatized.
- Government revenue: bribes can be used to reduce the amount of taxes, fees, dues, custom duties, and electricity and other public utility charges collected from business firms and private individuals.
- Time savings and regulatory avoidance: bribes can speed up the granting of permission, licenses and permits to carry out activities that are perfectly legal. This is the so-called “grease money” to turn the wheels of bureaucracy more smoothly, speedily and hopefully in the right direction. It is also not difficult to think of a really awful situation where rules and regulations, and the way they are applied, are so complex and burdensome that the only way left to get things done is to pay money to avoid them.
- Influencing outcomes of legal and regulatory processes: bribes can be used to provide incentives to regulatory authorities to refrain from taking action, and to look the other way, when private parties engage in activities that are in violation of existing laws, rules and regulations such as those relating to controlling pollution, preventing health



hazards, or promoting public safety as in the case of building codes and traffic regulations. Similarly, bribes can be given to favour one party over another in court cases or in other legal and regulatory proceedings.”<sup>3</sup>

## Causes of Corruption

In India to check the problem of corruption, legal provisions are made and various types of corruptions have been declared as crimes but problems relating to corruptions are unchecked and becoming more and more acute and disastrous. Such situation arises when law is enacted without considering the causations of problem. Before enactment causations should be find out and then legal provisions should address it. There are various causes of corruption:

### Greed and materialism

In modern era due to impact of industrialization and globalization persons have become greedy, professional ethics has weakened. Every individual now thinks only about one self and has become completely materialistic and willing to enjoy every physical commodity available in the market. Previously, people were spiritual therefore always observing religious dictates thereby social values; further people feared about commission of sin and its consequent impact of world beyond, the fear what might happen to one self, to kith and kin. But in modern era, particularly after advent of industrialization, urbanization and globalization religious dictates, morality, values, fear of god and world beyond are thrown away and now life philosophy is only governed by materialism and persons have become selfish being. Moto of life has changed: previously it might be- money is for life but now it is- life is for money. Public servant comes from the society and therefore, he shares all such deteriorations and has become a selfish and greedy being. Further public servant has opportunity to fetch his greed, avarice and rapaciousness and earn more and more money to obtain physical commodities and satisfy his

materialistic lust. Businessmen and industrialists give allurements to public servants and fetch greed of public servants for getting various types of licenses, permits and other undue advantages:

“...unfortunately bribery, corruption, favouritism, and nepotism in public services and by persons in high authority has swelled beyond all proportions and has taken form of acceptance of money, commissions, gifts, compensation, share profits, rewards and settlement for any favour, tender, license, permit, sanction and even prosecution and non prosecution. There is hardly any administrative field which is free from these malpractices. It is more prevalent in public undertakings, import – export controlling agencies, income tax, excise and customs department, public works department, enforcement offices and agencies, police, courts and quasi- judicial bodies, supplies and disposal departments, taxation departments, valuation departments and insurance claims.

These crimes are complex in their nature and roots in the society as a whole. As long as there are persons willing to corrupt and capable of corrupting, corruption would remain there. Unfortunately both the willingness and the capacity to corrupt are found in the present day society in large abundance. The industrial and commercial classes are out to corrupt anybody and everybody and unfortunately the temptations offered are too alluring for an ordinary man not to be swayed thereby, particularly with the decaying ethical and moral values of human life.”<sup>4</sup>

### **Moral and Professional Degradation**

Problem of corruption is increasing day by day, which may be directly correlated to day by day deterioration in morality and professional ethics in the society at large. Previously in society morality considerations were stronger, society was based on altruism, cohesive forces were stronger, professional ethics was emphasized, individual's activities were tested on sin criteria and the need of life was only to satisfy bare necessities like – bare clothing, food and shelter. Previously a person's reputation in the

society was calculated on the basis of his character, behaviour, knowledge and morality. But now there is no emphasis on morality and professional ethics. A person's reputation is calculated on the basis of his position in power hierarchy and money earned. Money has become marker of position and prestige.<sup>5</sup> In modern society money has become means and also goal; which causes degradation in every aspect of social arena and individual's life and activities. Previously corruption incidents might be minimal, but now it has become a problem and day by day getting monstrous problem:<sup>6</sup>

"First cause is the emergence of political elite who believe in interest-oriented rather than nation-oriented programmes and policies. In fact, the post British Raj (rule) has been described as "Raj of ministers and bureaucrats". The political elite in the first two decades after independence was honest, dedicated and nation oriented to the extent that they always worked for country's progress. From the fourth general elections in 1967 onwards, such persons came to hold political power both at the center and in the states about whom it was said that they worked only on the basis of some vested interest, say, interest of self, family, caste, region, party, and so forth. Their policies and programmes incidentally might have been nation-oriented but essentially they were interest-based also encouraged the bureaucrats to follow suit. A majority of bureaucrats in our country are described as "ritualistic" who do not take much interest in "development-oriented" policies for the betterment of society. The politicians and bureaucrats thus have started using their power and position for illegal benefits. The emergence of the new business leaders who wanted profits even by sharing them with the people in power became equally responsible for the mushroom growth of corrupt practices among the public servants. Corruption also emerges from the power of the government officials of taking decisions, say, issuing licences, assessing income tax, giving extensions and so on. It is not the rules but the interpretation of the rules which enables officers to receive kickbacks and pocket the bribe...Corruption is caused

as well as increased because of the change in the value system and ethical qualities of men who administer. The old ideals of morality, service, honesty and sacrifice are regarded as non-utilitarian and accepting 'favours' as a 'need' than a folly or aberrant behaviour."<sup>7</sup>

### **Discretionary Powers and Lack of Transparency**

In welfare state administration has to lay down policies, perform, regulate and control all the activities taking place in the society related with national, social, community and individual development. All these responsibilities are imposed on public servants. Public servants in welfare state have enormous powers and duties particularly for laying, interpreting and executing policies. Laying, interpreting and policies provides wider discretionary powers which if properly used, may make country developed; which if corruptly used may ruin the country. In India public servants have wider discretionary powers and at the same time other problem is lack of transparency. Wider discretionary powers with lack of transparency make very fertile condition for corruption. Corruption is a serious and heinous white collar crime and at the same time cause of commission of other types of white collar crimes and various other social degradations. Santhanam Committee, constituted in 1962 by central government to suggest changes in law to deal effectively problem of corruption, observed in its report:

"...In emerging Indian society with its emphasis on purposively initiated process of urbanisation, alongside of the weakening of the social mores of the simpler society, signs are visible of materialism, growing impersonalism, importance of status resulting from possession of money and economic and economic power, group loyalties, intensification of parochial affinities, unwillingness or inability to deal with deviations from the highest standards of political, economic and social ethics, profession of faith in the rule of law and disregard thereof where adherence thereto is not convenient...the advance of technological and

scientific development is contributing to the emergence of 'mass society', with a large rank and file and a small controlling elite, encouraging the growth of monopolies, the rise of a managerial class and intricate institutional mechanisms. Strict adherence to a high standard of ethical behaviour is necessary for the even and honest functioning of the new social, political, and economic processes. The inability of all sections of society to appreciate in full this need results in the emergence and growth of white collar and economic crimes renders enforcement of the laws, themselves not sufficiently deterrent, more difficult. This type of crime is more dangerous not only because the financial stakes are higher but also because they cause irreparable damage to public morals. Tax evasion and avoidance, share-pushing, malpractices in the share market and administration of companies, monopolistic controls, usury, under-invoicing or over-invoicing, hoarding, profiteering, substandard performance of contracts of construction and supplies, evasion of economic laws, bribery and corruption, election offences and malpractices are some examples of white collar crimes."<sup>8</sup>

After Independence, particularly in last two decades Indian society is going through the process of urbanisation, industrialisation and government has taken responsibility of welfare of people for these purposes enormous discretionary powers are vested on public servants. Whenever discretionary power is given regulation of discretionary power is essential requirement. Transparency serves as a major instrument for regulation of discretionary power, whenever any person may know that his activities and nature and mode of discretionary power exercise is transparent, policies are not vague and confusing and not to subject of subjective interpretations, public servant may not abuse or misuse his powers and commit the corruption. Vesting of discretionary powers without transparency is major cause of commission of corruption. Vesting of discretionary powers is compulsive in welfare state for the developmental activities and regulations of affairs of administration and business activities. Discretionary

powers may be abused by unscrupulous, dishonest, corrupt public servants and further corrupting him corrupt business concerns and moneyed persons are ready to pay the economic rent<sup>9</sup> out of black money:

“Discretionary powers represent another key concept in discussing corruption. They arise because it is not possible to devise rules and regulations that are water tightened foolproof and will take care of all contingencies that can crop up in trying to control or direct an economic activity. Hence, some flexibility and discretionary powers will have to be given to administrators in interpreting and implementing rules....To elaborate on the above point a little further, consider a case involving customs administration. A general rule, let us assume, has been established to levy a duty of 50 per cent on all consumer electronic goods entering the country. In order to implement this rule, customs officials must also be provided with some guidance on how to value such goods for customs purposes. One foolproof way to take care of this problem is to prepare a book that lists the prices of all consumer electronic goods that could possibly be imported into the country. But there are literally thousands of consumer electronic goods and each item comes in a large variety of brands, makes, models, characteristics, technical specifications and prices. With rapid technological advance in this industry, many older models are being discontinued due to obsolescence, while new models and entirely new products are coming on the market every day...Hence, to prepare a book that takes account of all these contingencies, and that provides a comprehensive, accurate and up-to-date list of prices of consumer electronic goods would be a formidable task... In addition to the customs valuation issue, there is the tricky question of deciding the customs category to which a particular imported good belongs. For example, an audio cassette player can be regarded as a “luxury consumer electronic product” when it is used for listening to popular songs in the living room of a well-to-do family. But the same cassette player can be looked upon as an “educational tool” when used by a student...

In short, regardless of how ingenious we are in designing rules and regulations, there must always be some room for personal judgment and freedom to exercise a measure of discretion on the part of officials administering and implementing the rules; or else if everything has to be done "by the book", general paralysis will set in and the whole administrative machinery will come to a grinding halt."<sup>10</sup>

Corruption is directly proportional to discretionary power vested in public servant, and also directly proportion to economic rent of public servant available to him because of his special official position and indirectly proportion to transparency in law, policy and execution of law and policy and also indirectly proportion to accountability, which may be fixed in case of misuse of powers. In the country where discretionary powers given to public servants are wider and economic rent (money amount available due to special official position) is higher, rate of corruption is higher and devastating. In the country where transparency in policy and its execution is greater and accountability is fixed thereby taking action is most probable, rate of corruption is minimal and not problematic.

### **Black Money**

Black money is tax evaded income and it is major cause of corruption. Corruption begets black money and in turn black money plays major role for commission of corruption. Person having black money have no problem to give money consideration for getting undue benefit. These persons always make attempt to corrupt the public servants and for this they lure the public servants, pressurize, use their political connections, transfer, posting and promotions of public servants and in these connections they use black money. Black money may be earned through legal and illegal means. In legally accepted profession money is earned but for evading taxes money is not accounted and thereby it makes black money. Major source of black money is illegal means like bribery, black marketing and smuggling. Black money is utilized

after mixing it with white money in legal professions and businesses and further white money is used as black money and ultimately the situation becomes much complicated and impossible to find out black money and source of black money. In corruption black money is much used. The proceed of corruption (amount given to public servant which may be out of black money or white money) becomes black money and it may be utilized by public servants as black money or after mixing it with white money. Black money is major cause of corruption and in turn corruption is major cause of black money.

Expensive election procedure is also responsible for corruption and black money. Elections have become much expensive that it is much difficult for honest persons to contest the election and when dishonest persons will contest the election and come in power, he will readily and freely involve in corruption and pressurize subordinate public servants to do the corruption. After winning the election corruption is committed and black money is accumulated for contesting next election. Elections are expensive therefore political parties and candidates much depend on fund provided by business men and white collar criminals; therefore political parties and political leaders feel obliged and after coming in power to give undue benefit such persons laws are made, policies are laid down and interpreted and executed. Business men if they want to be in business and get the profit, compelled to maintain black money and give fund to political parties and to candidates. A large amount of black money is used in elections:

“Each election in the country involves an expenditure of thousands of crores of rupees... Politicians also need to draw on business resources to nurse their constituencies. Given the mind-boggling numbers, black money naturally is built into the system. For funding politicians, even honest corporate houses have no option but to find ways to generate unaccounted-for money...elections are generally financed by black money holders. These people expect political patronage and economic concessions which are



obtained with the consent and the connivance of political elite in power in the form of artificial control on commodities, laxity in the means of distribution, etc. all these methods create black money.”<sup>11</sup>

#### **(v) People Habituation for Corruption:**

People habituation for any crime or problem is important cause for non coping of problem and increase in rate and magnitude of problem. When people will not react against the crime, not inform the law enforcement machinery about the incident, not give the statement before the investigating agency and testimony before the court, criminals cannot be sentenced and thereby criminal elements may be unrestrained in committing crimes and creating problem for the society at large. Every day in print and electronic media news is replete with corruption extending for millions and millions crores. In day-to-day dealings with public servants, people find that no decision or work is done without taking bribery, political connections are readily used for pressurizing public servants, honest public servants are penalized variously like by transfers and putting on worthless posts, and dishonest public servants are prized with promotions and postings; people find that even ministers are involved in large scams, there is criminalization of politics and politicization of crimes and further conviction rate in corruption case is nugatory; people find that whenever any person is getting opportunity to take bribery, misuse and abuse powers, he freely involves and does corruption. In these situations people make a perception about corruption which may not be reality that every public servant is corrupt and corruption is normal phenomenon, habituation for corruption affects whole criminal justice machinery that the victim may not feel that crime is committed against him, even he may participate corruption incident considering it normal act. Law enforcement agencies may not get information about corruption and corrupt public servants; and court may not have evidences, which may affect criminal justice system:

“Why are cases of corruption not reported by the people to the police? It is because they are afraid (that the corrupt will harm them), indifferent (that it is not their duty to reform the society) and pessimists (that corrupt are influential and powerful people and no action will be taken against them)... corruption is a hydra headed monster which can be vanquished only by the collective efforts of the people. If they make sure that the dishonest politicians do not get elected to legislatures, half the battle is won. But the big question is: will it ever happen?

In a democratic country like India, will people ever realize that they have to play a crucial role in combating evils like corruption? In fact, much of the corruption exists because of people’s tolerance or complete lack of public outcry against it, as well as the absence of a strong public forum to oppose it...”<sup>12</sup>

## Legal Regime

Legal regime in democratic country play important role in tackling social problems. Law has two roles to play – one as a norm setter; generations are socialized and thereby internalize standard that a particular kind of behaviour is undesirable and another role of law is to immediately check the problem by punishing offender. Punishment to offender further reinforces norm setter role of law. Corruption is socio-economic crime and it affects well-being of country, all the welfare activities, social-economic-political wellbeing, public faith in government and governmental action and rule of law. Corruption is creating great problem before needed to be immediately tackled and for this purpose many laws are passed by which corruption has been declared as crime. Law enforcement machinery and courts are created.

## International Law

Corruption is worldwide problem. It is affecting developed and developing nations both. Corruption not only affects individuals but it affects inter-nations relations and inter-national trade. Now in the era of globalization corruption in one country may affect

other country and also the citizens of other countries, therefore international community has convened conventions and made international law to tackle the problem of corruption. International law manifests determination of international community and directs member states to develop legal regime to cope with menace.

### **United Nations Convention against Corruption 2003**

Corruption is causing menacing problem before all the states, developed and developing nations all are badly affected by problem of corruption but it particularly affects developing nations and act as obstacle in whole developmental process. For tackling the problem, inter-state cooperation is essential, therefore, under the auspices of UNO a convention was made which gives directions to member states to take steps for prevention of corruption and for this purpose development of legal regime in accordance with guidelines provided in the convention. In this convention world community has shown its concern about seriousness of problem and threats posed to stability and security of society, democracy, value system and rule of law:

“This evil phenomenon is found in all countries—big and small, rich and poor—but it is in the developing world that its effects are most destructive. Corruption hurts the poor disproportionately by diverting funds intended for development, undermining a Government’s ability to provide basic services, feeding inequality and injustice and discouraging foreign aid and investment. Corruption is a key element in economic underperformance and a major obstacle to poverty alleviation and development. I am therefore very happy that we now have a new instrument to address this scourge at the global level. The adoption of the United Nations Convention against Corruption will send a clear message that the international community is determined to prevent and control corruption. It will warn the corrupt that betrayal of the public trust will no longer be tolerated. And it will reaffirm the importance of core values such as honesty, respect for the rule of

law, accountability and transparency in promoting development and making the world a better place for all. The new Convention is a remarkable achievement, and it complements another landmark instrument, the United Nations Convention against Transnational Organized Crime, which entered into force just a month ago. It is balanced, strong and pragmatic, and it offers a new framework for effective action and international cooperation. The Convention introduces a comprehensive set of standards, measures and rules that all countries can apply in order to strengthen their legal and regulatory regimes to fight corruption. It calls for preventive measures and the criminalization of the most prevalent forms of corruption in both public and private sectors. And it makes a major breakthrough by requiring Member States to return assets obtained through corruption to the country from which they were stolen."<sup>13</sup>

International community considered in this convention that the corruption is not a local problem but trans-national problem and at the same time corruption is linked with other menacing crimes like organized crimes and economic crimes and further corruption is very potent to damage democratic institutions, affect the rule of law, and destroy the national economy; therefore world community convened convention to combat convention:

"The purposes of this Convention are:

- To promote and strengthen measures to prevent and combat corruption more efficiently and effectively;
- To promote, facilitate and support international cooperation and technical assistance in the prevention of and fight against corruption, including in asset recovery;
- To promote integrity, accountability and proper management of public affairs and public property."<sup>14</sup>

In tackling any crime, particularly when it is causing menace for the society most potent measure is to strive for prevention of problem. Convention directs state parties for establishment

of independent bodies to take steps for prevention of corruption under intimation to Secretary General of UNO and also directs to provide resources and trained specialized staff to Preventive anti-corruption bodies.<sup>15</sup> State parties are required to promote and strengthen integrity, honesty and responsibility amongst public servants and enact law for declaration by public servants of investments, assets, benefits and gifts from any person which may interfere with his official works.<sup>16</sup> Public servants commit corruption mainly for money, if they may have sufficient salary to live proper life, they may not commit corruption. Article 7 of the convention directs member states to appoint public servants on the basis of transparency, efficiency, merit, equity and aptitude. Public servants should be properly trained, adequately remunerated and transferred from one position to other from time to time. Public servants of merit and adequately remunerated may not commit corruption. In democratic country elected public servants over whole administration and also in situation to control behavior of other public servants. If elected public servants are persons of value and honest, society and other public servants may follow him. Article 7 emphasizes for candidature of right persons in election and also provision for public funding for election. Expensive election is reason that honest persons are not in situation to contest the election and usually candidates take donations from corrupt businessmen and when come in power make law and policy and interpret in favour of businessmen. Further if right person is not elected, he may make whole system corrupt. Expensive election is main cause of criminalization of politics and politicization of crimes. Article 7 provides that:

"1. Each State Party shall, where appropriate and in accordance with the fundamental principles of its legal system, endeavour to adopt, maintain and strengthen systems for the recruitment, hiring, retention, promotion and retirement of civil servants and, where appropriate, other non-elected public officials:

- (a) That are based on principles of efficiency, transparency and objective criteria such as merit, equity and aptitude;

- (b) That include adequate procedures for the selection and training of individuals for public positions considered especially vulnerable to corruption and the rotation, where appropriate, of such individuals to other positions;
- (c) That promote adequate remuneration and equitable pay scales, taking into account the level of economic development of the State Party;
- (d) That promote education and training programmes to enable them to meet the requirements for the correct, honourable and proper performance of public functions and that provide them with specialized and appropriate training to enhance their awareness of the risks of corruption inherent in the performance of their functions. Such programmes may make reference to codes or standards of conduct in applicable areas.

2. Each State Party shall also consider adopting appropriate legislative and administrative measures, consistent with the objectives of this Convention and in accordance with the fundamental principles of its domestic law, to prescribe criteria concerning candidature for and election to public office.

3. Each State Party shall also consider taking appropriate legislative and administrative measures, consistent with the objectives of this Convention and in accordance with the fundamental principles of its domestic law, to enhance transparency in the funding of candidatures for elected public office and, where applicable, the funding of political parties.

4. Each State Party shall, in accordance with the fundamental principles of its domestic law, endeavour to adopt, maintain and strengthen systems that promote transparency and prevent conflicts of interest."

Transparency in functions of public servants is principal measure for prevention of corruption. Whenever there is transparency public servant may not have opportunity to abuse power in laying policy

and interpreting it. Also when any person knows that his activities are before the public, he may not dare to commit corruption.<sup>17</sup> Member states are directed to maintain transparency in procurement procedure and policy, inviting tenders, making contracts and personal interests of public servant, if any.<sup>18</sup> In modern society private sector has become very important, it is indulged in various types of activities like business activities, assisting state in welfare activities, construction of roads, school etc and private sector invest public money and also get funds from the government. In making public servant corrupt, private sector plays major role; therefore activities of private sector should also be regulated. Article 12 directs state parties to take measures, to prevent corruption in the private sector, enhance accounting and auditing standards in the private sector and, where appropriate, provide effective, proportionate and dissuasive civil, administrative or criminal penalties for failure to comply with such measures. State should make law for auditing, accounting, preventing misuse of licenses and subsidies, and transparency in private sector. Society awareness and participation play crucial role in prevention and combating corruption. Article 13 directs State Parties to take appropriate measures, within its means and in accordance with fundamental principles of its domestic law, to promote the active participation of individuals and groups outside the public sector, such as civil society, non-governmental organizations and community-based organizations, in the prevention of and the fight against corruption and to raise public awareness regarding the existence, causes and gravity of and the threat posed by corruption. State parties are required to develop legal measures that anti corruption bodies should be known to the public and public should have access to such bodies for reporting including anonymously, of any incident constituting an offence of corruption.

United Nations Convention against Corruption directs state parties to enact law for criminalisation of corruption and allied acts. Criminalisation and thereby imposition of sentence is major measure to tackle any problem. Sentence imposed on criminal

always reminds him in future that this act should not be committed otherwise punishment may be imposed. Further sentence imposed may also teach a lesson to potential criminal after seeing the fate of sentenced person that this act should not be committed. Giving and taking bribery are major methods of committing corruptions. State parties are directed to declare, promise, offering or giving any undue advantages through himself or any other person to any official for doing or refraining to do any official act; and solicitation or acceptance of any undue advantage by official, as criminal acts punishable under law.<sup>19</sup> In the era globalisation incidents of bribery to officials of other nations and international bodies are increasing, to check this problem Art. 16 directs for enactment of law to declare such incidents as crime. Usually in corruption cases some persons act as middlemen and they trade the influence over the officials and such persons are major instrumentality for commission of corruption, therefore, to check corruption such individuals should be punished. Art. 18 of Convention directs to state parties to declare trading of influence as crime. Law should be enacted for checking bribery in public and private sectors both.<sup>20</sup> Corruption is committed mainly by public servants to get money, therefore for tackling problem check on money proceeds and for its identification and recovery are requisite measures. Use of threat, physical force, intimidation or promise for fabrication of evidences or obstruction in exercise of official duty by use of physical force, threat or inducement should be declared as crime.<sup>21</sup> Art. 20 requires for making legal measure to disclose assets by public servants, if public servant is not able to reasonably explain increase of assets in relation to his income, it be criminal act and further Art. 23 and 24 directs to enact the law to declare money laundering and concealment of proceeds of corruption as crime:

***“Article 23. Laundering of proceeds of crime***

1. Each State Party shall adopt, in accordance with fundamental principles of its domestic law, such legislative and other measures as may be necessary to establish as criminal offences, when committed intentionally:



- (a) (i) The conversion or transfer of property, knowing that such property is the proceeds of crime, for the purpose of concealing or disguising the illicit origin of the property or of helping any person who is involved in the commission of the predicate offence to evade the legal consequences of his or her action;
- (ii) The concealment or disguise of the true nature, source, location, disposition, movement or ownership of or rights with respect to property, knowing that such property is the proceeds of crime;
- (b) Subject to the basic concepts of its legal system:
  - (i) The acquisition, possession or use of property, knowing, at the time of receipt, that such property is the proceeds of crime;
  - (ii) Participation in, association with or conspiracy to commit, attempts to commit and aiding, abetting, facilitating and counseling the commission of any of the offences established in accordance with this article.
- 2. For purposes of implementing or applying paragraph 1 of this article:
  - (a) Each State Party shall seek to apply paragraph 1 of this article to the widest range of predicate offences;
  - (b) Each State Party shall include as predicate offences at a minimum a comprehensive range of criminal offences established in accordance with this Convention;
  - (c) For the purposes of subparagraph (b) above, predicate offences shall include offences committed both within and outside the jurisdiction of the State Party in question. However, offences committed outside the jurisdiction of a State Party shall constitute predicate offences only when the relevant conduct is a criminal offence under the domestic law of the State where it is committed and would be a

criminal offence under the domestic law of the State Party implementing or applying this article had it been committed there;

- (d) Each State Party shall furnish copies of its laws that give effect to this article and of any subsequent changes to such laws or a description thereof to the Secretary-General of the United Nations;
- (e) If required by fundamental principles of the domestic law of a State Party, it may be provided that the offences set forth in paragraph 1 of this article do not apply to the persons who committed the predicate offence.

#### **Article 24. Concealment**

Without prejudice to the provisions of article 23 of this Convention, each State Party shall consider adopting such legislative and other measures as may be necessary to establish as a criminal offence, when committed intentionally after the commission of any of the offences established in accordance with this Convention without having participated in such offences, the concealment or continued retention of property when the person involved knows that such property is the result of any of the offences established in accordance with this Convention."

Check over the money laundering is potential measure to tackle the problem of corruption. When any person will have knowledge that property obtained through corruption may be confiscated, he may not commit crime of corruption or related acts. Article 31 directs for tracing, identification, seizure and confiscation of proceeds of corruptions. Article 52 of convention directs state parties to make law requiring financial institutions to verify the identity of customers and to take reasonable steps to determine the identity of beneficial owners of funds deposited into high-value accounts and to conduct enhanced scrutiny of accounts sought or maintained by or on behalf of individuals who are, or have been, entrusted with prominent public functions and their

family members and close associates. Such enhanced scrutiny may reasonably facilitate the detection of suspicious transactions and it may be important measure to check money laundering. Article 58 directs for establishment of financial intelligence unit for receiving, analyzing and disseminating to the competent authorities reports of suspicious financial transactions. In criminal acts intention is important requisite, but in corruption cases to prove intention is very difficult. Corruption is committed by public servants and businessmen in course of discharge of official duties and also they have professional expertise, therefore evidences may not be available to prove intention. To cope with this situation Article 28 of Convention provides that the Knowledge, intent or purpose required as an element of an offence established in accordance with this Convention may be inferred from objective factual circumstances. This provision creates rebuttal presumption for intention when the acts constituting corruption are proved. For investigation of corruption cases specialized agencies are much required; Article 36 of Convention directs for establishing specialized law enforcement agencies with necessary independence, appropriate training and resources so that it may function effectively without undue influence. Investigation of corruption cases requires special training for evidence collection, Article 61 emphasizes on initiation, development and improvement of specific training programmes for its personnel responsible for preventing and combating corruption. In era of globalization international cooperation is much required for effective law enforcement in corruption cases, therefore, Article 43 to Article 50 directs to state parties for cooperation in investigation, joint investigation, establishment of joint investigating bodies, use of special investigative techniques like electronic or other forms of surveillance and undercover operations, proceedings and administrative actions. Article 54 and 55 directs for international cooperation in confiscation of property acquired through or involved in the commission of offence of corruption or related acts. Law should be developed for taking such measures as may

be necessary to allow confiscation of such property without a criminal conviction in cases in which the offender cannot be prosecuted by reason of death, flight or absence or in other appropriate cases.

## **(ii) United Nations Convention against Transnational Organized Crime 2000**

Corruption and money laundering are linked with organized crime and terrorism and to deal with these crimes international cooperation is much required and for this purpose United Nations Organisation convened United Nations Convention against Transnational Organized Crime 2000. Art. 1 of Convention clears object of convention that the purpose of this Convention is to promote cooperation to prevent and combat transnational organized crime more effectively. Organized criminal gangs when involved in committing corruption, it causes more deleterious effect over national and international economy and further the proceeds of crime may be used for committing serious crimes particularly relating to smuggling, terrorism, arms deals, or other serious crimes. This convention was convened to prevent serious crimes to be committed by organized criminal gangs. Art. 2 defines organized criminal group that "Organized criminal group" shall mean a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences and established in accordance with this Convention, in order to obtain, directly or indirectly, a financial or other material benefits. Structured group of criminals is much organized gang; Art. 2 clears that structured group means a group that is not randomly formed for the immediate commission of an offence and that does not need to have formally defined roles for its members, continuity of its membership or a developed structure. Serious crime is transnational in nature involving organized criminal group and punishable by four years imprisonment or more<sup>22</sup>. Art. 5 directs state parties to make provisions prescribing punishment for conspiracy to commit serious crime for obtaining financial benefits, participating or

abetting in the activities of organized criminal group. Art. 8 directs for criminalization of corruption and to prescribe punishment for promise, offering or giving to a public official, directly or indirectly, of an undue advantage, for the official himself or herself or another person or entity, in order that the official act or refrain from acting in the exercise of his or her official duties; and The solicitation or acceptance by a public official, directly or indirectly, of an undue advantage, for the official himself or herself or another person or entity, in order that the official act or refrain from acting in the exercise of his or her official duties . Art. 9 directs for adoption of legislative, administrative or other effective measures to prevent, detect and punish the corruption of public officials and to ensure effective actions by its authorities in the prevention, detection and punishment of the corruption of public officials, including providing such authorities with adequate independence to deter the exertion of inappropriate influence on their actions. Corruption is mainly committed for getting more and more money; money obtained by corruption is concealed and invested as untainted money. This is called money laundering. When money laundering may be checked, a person may not commit crime of corruption. Further Money laundering is used for providing money and resources for committing organized criminal gangs, terrorist activities etc., therefore check on money laundering may be helpful in dealing and curbing such activities. Art.6 directs that state parties to enact law and develop other measures to effectively deal with the problem of money laundering:

***“Criminalization of the laundering of proceeds of crime***

1. Each State Party shall adopt, in accordance with fundamental principles of its domestic law, such legislative and other measures as may be necessary to establish as criminal offences, when committed intentionally:

- (a) (i) The conversion or transfer of property, knowing that such property is the proceeds of crime, for the purpose

of concealing or disguising the illicit origin of the property or of helping any person who is involved in the commission of the predicate offence to evade the legal consequences of his or her action;

- (ii) The concealment or disguise of the true nature, source, location, disposition, movement or ownership of or rights with respect to property, knowing that such property is the proceeds of crime;
- (b) Subject to the basic concepts of its legal system:
  - (i) The acquisition, possession or use of property, knowing, at the time of receipt, that such property is the proceeds of crime;
  - (ii) Participation in, association with or conspiracy to commit, attempts to commit and aiding, abetting, facilitating and counseling the commission of any of the offences established in accordance with this article."

To tackle the problem of corruption most potent instrument is to confiscate the proceeds of corruption. Object of corruption is to have more money and enjoy the benefits of money. When corrupt officials will find that in addition to punishment money for which corruption was committed, has been confiscated, it will be lesson for him and for other potential corrupt officials to not commit such acts. Art. 12 directs state parties to confiscate proceeds of crimes:

- “1. States Parties shall adopt, to the greatest extent possible within their domestic legal systems, such measures as may be necessary to enable confiscation of:
  - (a) Proceeds of crime derived from offences covered by this Convention or property the value of which corresponds to that of such proceeds;
  - (b) Property, equipment or other instrumentalities used in or destined for use in offences covered by this Convention.

2. States Parties shall adopt such measures as may be necessary to enable the identification, tracing, freezing or seizure of any item referred to in paragraph 1 of this article for the purpose of eventual confiscation.
3. If proceeds of crime have been transformed or converted, in part or in full, into other property, such property shall be liable to the measures referred to in this article instead of the proceeds.
4. If proceeds of crime have been intermingled with property acquired from legitimate sources, such property shall, without prejudice to any powers relating to freezing or seizure, be liable to confiscation up to the assessed value of the intermingled proceeds.
5. Income or other benefits derived from proceeds of crime, from property into which proceeds of crime have been transformed or converted or from property with which proceeds of crime have been intermingled shall also be liable to the measures referred to in this article, in the same manner and to the same extent as proceeds of crime.
6. For the purposes of this article and article 13 of this Convention, each State Party shall empower its courts or other competent authorities to order that bank, financial or commercial records be made available or be seized. States Parties shall not decline to act under the provisions of this paragraph on the ground of bank secrecy.
7. States Parties may consider the possibility of requiring that an offender demonstrate the lawful origin of alleged proceeds of crime or other property liable to confiscation, to the extent that such a requirement is consistent with the principles of their domestic law and with the nature of the judicial and other proceedings..."

Confiscated property may be disposed by state parties in accordance with their domestic law<sup>23</sup>. In the modern era

criminals to conceal the proceeds of crime usually invest the money in other countries, therefore to tackle the problem of money laundering Art. 13 directs for international cooperation for confiscation and Art. 14 directs for international cooperation in disposal of confiscated property. The Convention directs state parties for joint investigation and cooperation in investigation, law enforcement, collection and sharing of information, prosecution and extradition in matters relating to organized crimes and money laundering. When money laundering is tackled properly, it may be check on corruption, organized crimes like smuggling, terrorism, black money etc. Corruption and money laundering are related crime; for money corruptions are usually committed and after commission of corruption to conceal money public servants commit money laundering. If this money or property is discovered, confiscated and disposed, then no public servant may have dare to commit corruption because he may fear that even after committing corruption he may not be able to enjoy such money or property. International cooperation is required to check the problem of money laundering.

## Indian Law

Corruption affects whole developmental process, particularly infrastructural development, economic wellbeing of nation, welfare activities are affected and further corruption causes moral degradation, erodes faith in law, creates criminogenic environment and multiplies problem of black money. Corruption is major problem in India affecting the whole developmental, welfare activities, law enforcement activities and further every aspect of life people; therefore, Indian legislature has enacted statutes to check the menacing problem of corruption.

### (i) Prevention of Corruption Act 1988

Prevention of Corruption Act was passed in 1947 to tackle the problem of corruption, but with passing time it was realized that the rate and seriousness of corruption cases are increasing and the aforesaid Act is needed to be modernized, therefore, in 1988



Act of 1947 was repealed and Prevention of Corruption Act 1988 was enacted. Act of 1988 prescribes punishment for corruption committed by public servants<sup>24</sup> in performance of his official duties and attempt or abetment thereof.

### (a) Offences

Corruption is mainly committed by public servants for money considerations, therefore to check the problem sec. 7 of Prevention of Corruption Act 1988 declares that the taking gratification other than legal remuneration in performance of an official act is an offence. Section 7 is very wider and includes public servant and person expecting to be public servant both, when gratification has been taken or attempt to obtain gratification has been made or agreement to accept gratification has been made as a motive or reward for doing or forbearing to do an official act or showing or forbearing to show favour or disfavour or for rendering or attempting to render any service or disservice. Offence is committed when gratification is taken as a motive to do the acts mentioned under Sec. 7:

“Whoever, being, or expecting to be a public servant, accepts or obtains or agrees to accept or attempts to obtain from any person, for himself or for any other person, any gratification whatever, other than legal remuneration, as a motive or reward for doing or forbearing to do any official act or for showing or forbearing to show, in the exercise of his official functions, favour or disfavour to any person or for rendering or attempting to render any service or disservice to any person, with the Central Government or any State Government or Parliament or the Legislature of any State or with any local authority, corporation or Government company referred to in clause (c) of section 2, or with any public servant, whether named or otherwise, shall be punishable with imprisonment which shall be not less than six months but which may extend to five years and shall also be liable to fine<sup>25</sup>”.

To conceal corruption public servant usually attempt to show the transaction is not of bribery but valuable things have been taken

in some legal transactions. To check such mode of corruption Sec. 11 provides that when public servant accepts or obtains or agrees to accept or attempts to obtain for himself or for any other person any valuable thing without consideration or inadequate consideration and obtaining such thing is related with performance of official work, is an offence punishable with imprisonment for a term which shall not be less than six months but which may extend to five years and also with fine. Corruption is committed by public servant when he has corrupt mentality, maturity and expertise in commission of corruption. Once a public servant has successfully committed act of corruption, always probability is there to become habitual corrupt. To tackle problem of recidivist indulged in corruption, it is needed that the more severe punishment be inflicted, therefore, Sec. 13 declares habitual committing of corruption as offence of criminal misconduct punishable by imprisonment which shall not be less than one year but which may extend to seven years and also by fine. Offence of Criminal Misconduct is committed when public servant habitually accepts or obtains illegal gratification or attempts to obtain illegal gratification, or habitually accepts or obtains any valuable thing without consideration or inadequate consideration, or commits breach of trust, or is in possession of pecuniary resources or property disproportionate to his known sources of income. Public servants usually do not take bribe directly but use some middlemen and in some instances some persons pretend as middlemen. Such middlemen take gratification to induce public servants by corrupt or illegal means using personal influence to do or forbear to do any official act. To check the problem of corruption ss. 8 and 9 prescribe punishment of imprisonment which shall not be less than six months but which may extend to five years and also fine to be inflicted on such middlemen. When public servant abets offence punishable under ss. 8 and 9, he is punishable by same punishment<sup>26</sup>. Middlemen and vested interests even common man usually induce public servant to commit corruption. Such act of inducement amounts to abetment punishable under sec.12. Sec 12 prescribing punishment for abetment is very wider in its, it even

includes giver of illegal gratification. In such situation a person may not lodge FIR that he may be prosecuted under sec.12 of the Act for giving illegal gratification thereby committing abetment of offence punishable under sec. 7 and 11; such situation may hamper law enforcement, therefore, sec. 24 provides immunity to giver of illegal gratification from prosecution for any statement given in any proceeding that he offered or agreed to offer bribe to public servant:

“Notwithstanding anything contained in any law for the time being in force, a statement made by a person in any proceeding against a public servant for an offence under sections 7 to 11 or under section 13 or section 15, that he offered or agreed to offer any gratification (other than legal remuneration) or any valuable thing to the public servant, shall not subject such person to a prosecution under section 12.”

### **(b) Investigation**

Offenders involved in corruption are experts in their area and usually corruption is committed by organized crime syndicate, therefore, normally evidences are not available. Main offender is public servant; he may be able to influence witnesses and also investigative machinery. Considering the problems involved in investigation of corruption cases besides measures provided under Criminal Procedure Code some additional measures are provided under Prevention of Corruption Act 1988. Corruption cases are needed to be investigated by experienced and senior police officers. Act provides that the cases may be investigated by Inspector of Police under Delhi Special Police Establishment, in metropolitan area by Assistant Commissioner of Police, in other areas Deputy Superintendent of Police. Investigating officer may investigate the corruption cases without an order of magistrate and arrest without warrant. But a case relating to disproportionate property punishable u/s 13 (1)(e) may only be investigated after permission of superintendent of police.<sup>27</sup> During investigation police officer may inspect banker's book.

### (c) Prosecution

Corruption hampers whole developmental process and further affects faith of citizenry in government, therefore, effective check necessitates. Usually for committing corruption public servants lay down wrong policies or misinterpret policies; in case of *Centre for Public Interest Litigation v. Union of India* AIR 2012 SC 3725 at p. 3762 (case relating to 2G scam) Supreme Court observed that:

“There is a fundamental flaw in the first-come-first-served policy inasmuch as it involves an element of pure chance or accident. In matters involving award of contracts or grant of licence or permission to use public property, the invocation of first-come-first-served policy has inherently dangerous implications. Any person who has access to the power corridor at the highest or the lowest level may be able to obtain information from the government files or files of agencies/instrumentality of the state that a particular public property asset is likely to be disposed or a contract is likely to be awarded or a licence or permission is likely to be given, he would immediately make an application and would become entitled to stand first in queue at the cost of all others who may have a better claim. This court has repeatedly held that wherever a contract is to be given, the public authority must adopt a transparent and fair method for making selections so that all eligible persons get a fair opportunity of competition...”

Further Supreme Court observed in this case (at p. 3764):

“...We are also conscious of the fact that the court should not interfere with the fiscal policies of the state. However, when it is clearly demonstrated that the public policy framed by the state or its agency/instrumentality and/or its implementation is contrary to public interest or is violative of the constitutional principles, it is the duty of the Court to exercise its jurisdiction in larger public interest and reject the stock plea of the state that the scope of judicial review should not be exceeded beyond recognized

parameters. When matters like these are brought before the judicial constituent of the state by public spirited citizens, it becomes duty of the Court to exercise its power in larger public interest and ensure that the institutional integrity is not compromised by those in whom the people have reposed trust and who have taken oath to discharge duties in accordance with the Constitution and the law without fear or favour, affection or ill will..."

Check on corruption may be realized when cases are tried without any delay by competent courts. In this reference under Prevention of Corruption Act, some special measures in addition to Criminal Procedure Code are provided. For trial of corruption cases, special judge is appointed by central or state government, who shall be either session judge or additional judge or assistant session judge<sup>28</sup>. For speedy disposal of cases sec. 5 provides that the special judge may take cognizance directly without committal of case by magistrate. In trial of cases court shall follow procedure prescribed for trial of warrant cases by magistrate, but for imposition of sentence and appeal court of special judge shall be treated as Court of Session<sup>29</sup>. Prevention of Corruption Act is enacted to check the corruption, but possibilities of misuse of Act may not be denied to falsely implicate honest public servants and pressurize or exploit them, therefore, Public servant is required to be protected against false cases, thereby he may discharge his official duty without any fear of prosecution on false allegations. Sec. 19 of the Act makes limitation power of court to take cognizance and provides that court can take cognizance in a corruption case against public servant when previous sanction for taking cognizance has been given by central or state government or authority competent to remove from office<sup>30</sup>. Previous sanction is requisite condition for taking cognizance, not for investigation. Without previous sanction case cannot instituted and proceed before the court, but for initiation of investigation previous sanction is not required.

Corruption is committed by public servants, who are expert in their area or the offences are committed by middlemen forming organized gangs, therefore, normally evidences are not available but at the

same time it is much required that persons committing corruption must be penalized with severe punishment, therefore, sec. 20 of Prevention of Corruption Act to meet problem of lack of evidences makes presumption clause. When taking of illegal gratification means *actus reus* is proved, motive to commit corruption means *mens rea* is presumed. Presumption about motive to commit corruption is rebuttal presumption means accused is provided with opportunity to contradict such presumption:

**“20. Presumption where public servant accepts gratification other than legal remuneration**

- (1) Where, in any trial of an offence punishable under section 7 or section 11 or clause (a) or clause (b) of sub-section (1) of section 13 it is proved that an accused person has accepted or obtained or has agreed to accept or attempted to obtain for himself, or for any other person, any gratification (other than legal remuneration) or any valuable thing from any person, it shall be presumed, unless the contrary is proved, that he accepted or obtained or agreed to accept or attempted to obtain that gratification or that valuable thing, as the case may be, as a motive or reward such as is mentioned in section 7 or, as the case may be, without consideration or for a consideration which he knows to be inadequate.
- (2) Where in any trial of an offence punishable under section 12 or under clause (b) of section 14, it is proved that any gratification (other than legal remuneration) or any valuable thing has been given or offered to be given or attempted to be given by an accused person, it shall be presumed, unless the contrary is proved, that he gave or offered to give or attempted to give that gratification or that valuable thing, as the case may be, as a motive or reward such as is mentioned in section 7, or, as the case may be, without consideration or for a consideration which he knows to be inadequate.
- (3) Notwithstanding anything contained in sub-section (1) and (2), the court may decline to draw the presumption referred

to in either of the said sub-sections, if the gratification or thing aforesaid is, in its opinion, so trivial that no inference of corruption may fairly be drawn."

Prevention of Corruption Act is progressive law, if implemented properly it may create deterrence in the mind of public servants and other persons involved in the corruption.

### **(ii) Prevention of Money Laundering Act 2002**

To tackle problem of crime effectively, always it is needed that its causes should be considered and law should be made accordingly. Major cause of corruption is greed and materialism and to satisfy it public servant commit corruption, money is obtained and projected as untainted property. Such property also creates problem of black money; corruption and black money are inter-related problem: corruption creates black money and black money creates corruption. For effective check on corruption, confiscation of proceeds of corruption is essential requirement. When objective of corruption, means money obtained by corruption, is confiscated, public servant may not commit corruption and thereby problem of corruption may be tackled. Concealing of proceed of corruption is major component in crime of corruption. It is called as money laundering, which is declared as crime in section 3 of Prevention of Money Laundering Act 2002:

"Whosoever directly or indirectly attempts to indulge or knowingly assists or knowingly is a party or is actually involved in any process or activity connected with the proceeds of crime including its concealment, acquisition or use and projecting or claiming it as untainted property shall be guilty of offence of money laundering."

Offence of money laundering is committed when proceeds of crime<sup>31</sup> is projected as untainted property. Offence of money laundering is punishable by rigorous imprisonment for a term not less than three years but which may extend up to seven years and also by fine. In case of offences under Narcotics and Psychotropic

Substances Act 1985 which is shown in paragraph 2 of part A of the Act 2002 imprisonment extends up to ten years. Offence of corruption is mentioned in paragraph 8 of part A of the schedule of Act 2002, therefore, imprisonment extends up to seven years. Only imposition of sentence may not be sufficient for tackling the problem of money laundering and ultimately the crime from which such proceeds of crime has been obtained but it is required that the proceeds of crime be identified and confiscated. For identification and confiscation of proceeds of crime Directorate is established and director, deputy director and assistant director are empowered to attach the proceeds of crime provisionally for maximum period of one hundred eighty days. Then matter is referred to adjudicatory authority and a complaint in aforesaid reference is filed before adjudicatory authority within thirty days from the date of such attachment<sup>32</sup>. Adjudicatory Authority is established by Central Government. Adjudicatory Authority consist a chairperson and two other members. Procedure applicable in disposal of case by adjudicatory authority is rule of natural justice; director and person, whose property has been attached, are provided with proper opportunity of hearing and when any other person is claiming attached property, he is also heard. During proceeding adjudicatory authority considers sources of income, earning or assets out of which or by means of which attached property would be acquired. After completion of proceeding if it comes out that the property is proceeds of crime, attachment of property is confirmed. Against order of adjudicatory authority appeal may be filed before Appellate Tribunal established by Central government. If offence of money laundering u/s 3 r/w 4 of Act 2002 is in trial, attachment continues till disposal of case. Confiscation becomes final when accused is convicted and rights and title vests absolutely in Central Government free from all encumbrances<sup>33</sup>.

Offence of money laundering is committed by organized gangs or/and persons of high social status. They are expert in their act and further they project proceeds of crime as untainted property in



planned manner, therefore, commonly proving case is problematic but at the same time to check the problem of money laundering and thereby corruption is much required for betterment of society, therefore, presumption clauses are created u/ss 22 and 23 of Act. Section 22 provides that when any property or record is found in possession or seized from custody or control of any person, then it will be presumed that property and record belongs to such person and contents of records are true and signed, executed and attested by the person by whom it purports to have been signed, stamped, executed or attested. When money laundering involves inter-connected transactions and one or two such transactions are proved, then sec. 23 makes presumption clause that it be presumed that remaining transactions form part of such inter-connected transactions. In money laundering cases prosecution has to prove case prima facie, after that burden of proof shifts on accused to disprove allegation. In ss. 22 and 23 presumption clauses are created and then a specific provisions shifting burden of proof on accused is provided in sec. 24:

“In any proceeding relating to proceeds of crime under this Act,

- (a) in the case of a person charged with the offence of money laundering under section 3, the authority or court shall, unless the contrary is proved, presume that such proceeds of crime are involved in money laundering; and
- (b) in case of any other person the authority or court, may presume that such proceeds of crime are involved in money laundering.”

For investigation and inquiry to identify proceeds of crime, it is necessary that there should be coordination among law enforcement agencies. Sec. 54 empowers law enforcement officers like officers of Customs and Central Excise department, officers appointed under NDPS Act 1985, stock exchange, reserve bank, police, officers appointed under FEMA 1999, SEBI, Income Tax Department etc. and directs these officers to assist authorities (Director, Joint Director and Assistant Director) in the enforcement

of provisions of Prevention of Money Laundering Act 2002. Offence of money laundering punishable under sec. 4 of the Act is declared as cognizable and non-bailable<sup>34</sup>. This offence is committed by organized gangs and also they may have international connections, therefore, for investigation of offence and attachment of proceeds of crime international co-operation may be required. Section 56 empowers Central Government to make agreement with other countries for enforcement of this Act and exchange of information for prevention of money laundering. On request of investigating officer court may issue letter of request to court authority in the other country for collection of evidences.<sup>35</sup> Special courts are established for trial of offence of money laundering. Sec. 43 empowers Central Government to establish court of sessions as special court after consultation with High Court. In trial of offence special court is deemed as court of sessions and accordingly trial procedure applies<sup>36</sup>.

### Concluding Remarks

Corruption is not only a crime but also a serious social problem which further begets many other problems like black money, black market, money laundering etc. corruption affects infra structural development, economic growth, prosperity of nation and ultimately erodes public faith in law, government, and governmental actions. To tackle the problem of corruption legal regimes are created in international and national law but problem is unchecked and further multiplying at alarming rate. To tackle the problem of corruption only legal measures may not be sufficient and effective, but considering causation of corruption, it may be more appropriate if along with legal measures social measures are also resorted. Social mores, social values, social philosophy and social solidarity should be reinforced. Now money has become marker of status in the society; in this reference society should make attempt to make simple life, high moral character and honesty as marker of status. Steps should be taken for stigmatization of corruption and person committing corruption.

Greed is major cause of corruption; emphasis should be made on monitoring on earnings of public servants and confiscation of proceeds of corruption. Creation of law is not solution of problem but need is to strengthen law enforcement agencies for speedy and effective enforcement of law.

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2. Anant Bandhu Mukherjee, Crime, Corruption and Economic Development, cited in Raj Kumar Sen, Crime and Corruption in Indian Economy, Deep and Deep Publ., New Delhi, 2007, p. 240.
3. U Myint, Corruption: Causes, Consequences and cures, Asia-Pacific Development Journal Vol. 7, No. 2, December 2000, pp. 35-36.
4. Mahesh Chandra, *Socio-Economic Crimes*, N.M. Tripathi Private LTD., Bombay, 1979, pp. 95-96.
5. Robert Merton gave *Anomie Theory*; according to it society provides goals which are those things that are worth striving for all the individuals and means by which those goals may be obtained. The means are socially approved methods and that involves the element of norms, which are culturally defined. A society's norms define not only the goals but also the means by which those goals may be obtained. In the society where means is emphasized, people become conformist and do not commit crime and affect the society. Previously in the society emphasis was on means to achieve the goal, morality and professional ethics considerations were stronger; public servants were performing their duties rightfully and incidents of corruption was minimal. In the society where only goal is emphasized, in that society how goal will be attained becomes immaterial; crime problem particularly of corruption increases. In case of public servants goals are to have position and money, if means to attain goal, morality and professional ethics are not emphasized, they may commit most heinous and ghastly corruptions.
6. Frank Tannenbaum, Georgia Florita and Emile Durkheim opined that crime is universal and ever present phenomenon in the

society. Crime may be in one form or in other but always exist in the society. Crime rate may vary with time and place. When crime rate is minimal, crime problem is not felt and it appears that there is no crime. When crime rate is higher, crime becomes problem. Previously rate of corruption crimes was minimal, it was not felt but now rate of corruption crimes is higher, it has become disastrous problem.

7. Ram Ahuja, *Society in India*, Rawat Publications, Jaipur, 1999, pp. 409-410.
8. Santhanam Committee Report quoted in Mahesh Chandra, op. Cit., pp.55-57.
9. Economic rent is money amount which may be paid to public servant for giving undue benefit according to his special official position and ability to provide undue benefits. Economic rent is paid to public servant because of being public servant and his authority. Economic rent arises when a person has something unique or special in his possession. Public servants have a special position by which he has authority to interpret the policies, execute the policies, and sign the documents, to assign the works, contracts, licenses, and permits or to provide other benefits. Economic rent varies with the variation in authority, bureaucratic hierarchy, discretionary power, and economic or other benefits involved. For example peon is paid because he may produce file before the officer, clerk for putting seal and officer for decision in favour; everyone is paid according to his official position.
10. U Myint, *Corruption: Causes, Consequences and Cures*, op. cit., pp. 37-38.
11. Ram Ahuja, op cit., p.427.
12. *id* at p. 419
13. Kofi A. Annan, Secretary-General UNO, Foreword to United Nations Convention against Corruption 2003.
14. Article 1 United Nations Convention against Corruption 2003.
15. Art. 6 United Nations Convention against Corruption 2003.

16. Art. 8 United Nations Convention against Corruption 2003.
17. Article 10 of United Nations Convention against Corruption 2003 directs member states for providing access to public for getting information about organization functioning, decision making process by public servants and public bodies. Further it directs for publishing information in form of periodic reports on the risks of corruption in its public administration.
18. Art. 9 United Nations Convention against Corruption 2003.
19. Art. 15 United Nations Convention against Corruption 2003.
20. Art. 21 and 22 United Nations Convention against Corruption 2003.
21. Art. 25 United Nations Convention against Corruption 2003.
22. Art. 2 and 3 United Nations Convention against Transnational Organized Crime 2000.
23. Art. 14 (1) United Nations Convention against Transnational Organized Crime 2000
24. Section 2 (c) of Prevention of Corruption Act 1988 gives wider definition for term 'Public Servant' which includes government officials, person in service of local authority, person working in corporation or government owned or controlled or aided company, any judge or person authorized by court to perform any duty, any person empowered to prepare electoral role or conduct election, any office bearer of registered cooperative society receiving aid from government, chairman or member or employee of service commission or board, vice-chancellor or teacher or employee of University or whose services availed by University, office bearer or employee of an educational, scientific, social, cultural or other institution receiving aid from government, and any person who holds an office by virtue of which he is authorized or required to perform any public duty. 'Any person who holds an office by virtue of which he is authorized or required to perform any public duty' is much wider and inclusive; it includes every person whoever is performing public duty or authorized to perform public duty. Public duty is defined in Sec. 1(b) that Public Duty means a duty in

discharge of which the state, the public or the community at large has an interest.

25. Sec. 7 of Prevention of Corruption Act 1988.
26. Sec. 10 of Prevention of Corruption Act 1988.
27. Sec.17 of Prevention of Corruption Act 1988.
28. Sec. 3 of Prevention of Corruption Act 1988.
29. Sec.5 of Prevention of Corruption Act 1988.
30. Similar protection has been given to public servant under sec. 197 of Criminal Procedure Code which provides – “When any person who is or was a judge or magistrate or public servant not removal from his office save by or with the sanction of the government is accused of any offence alleged to have been committed by him while acting or purporting to act in discharge of his official duty, no court shall take cognizance of such offence except with the previous sanction ...”
31. Sec. 2(1)(u) of Prevention of Money Laundering Act 2002 defines proceeds of crime- “proceeds of crime” means any property derived or obtained, directly or indirectly , by any person as a result of criminal activity relating to a scheduled offence or the value of any such property.
32. Sec. 5, 17 and 18 of Prevention of Money Laundering Act 2002.
33. ss. 8 and 9 of Prevention of Money Laundering Act 2002.
34. Sec. 45 of Prevention of Money Laundering Act 2002.
35. Sec. 57 of Prevention of Money Laundering Act 2002.
36. Sec. 46 of Prevention of Money Laundering Act 2002.



# Violence Against Dalit Women: Incidence, Causes, Consequences and Remedial Strategies with Special Reference to Policing

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## Keywords

*Gender, Violence, Sexual Violence, Violence against Dalit Women, Underprivileged, Rape, Patriarchy, Gender Sensitisation of Police, Awareness Raising, Counselling.*

## Abstract

*In our deeply hierarchical and patriarchal society, dalit women face four-fold discrimination on the basis of caste, class, gender and patriarchy. Recent studies have pointed to the fact that dalit women face the maximum brunt of violence in society and this violence is increasing many folds by the day. There is a lot of research on violence against women globally and in India, but violence against the dalit women is an under researched area. In this background, this paper tries to examine and analyse the prevalence of violence against dalit women factors which lead to violence, their consequences on dalit women and intervention strategies to annihilate the menace of violence against dalit women. A lot of emphasis has been given on how better policing can help in tackling this scourge.*

## Violence against Women - Definition & Background

**Y**ou can tell the condition of a nation by looking at the status of its women" said Jawaharlal Lal Nehru. Violence against Women is the most pervasive abuse of women's human

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rights globally (Kerr, 1993:1). Violence is an act of aggression, an act aiming at maintaining or changing the current power relations of domination and subordination, of power and powerlessness in interpersonal interactions. Violence against women is a “manifestation of historically unequal power relations between men and women” (Declaration on the Elimination of Violence against Women, General Assembly Resolution 48/104 of 20 December 1993. Despite all the rhetoric of liberalism, equality and human rights, it has to be acknowledged that the incidents of violence against women continue unabated in India. Violence against women appears across caste, class, ethnicity, race, culture, geographical location, age and occupation/profession (Singh & Singh, 2008: XI).

The United Nations has defined “Violence against Women” in 1993 in Declaration on the Elimination of Violence against Women as any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life (Naidu, 2011:23). If we glance at the global statistics on violence against women, upto 7 in 10 women report having been physically or sexually abused at some point in their lifetime. Up to 50 per cent of sexual assaults are committed against girls under the age of 16. The WHO Report has classified violence into three broad categories, i.e., self-inflicted violence, interpersonal violence and collective violence. Violence, in general, is about power to control, subjugate and dominate others. The magnitude of this power can be local, regional, national or international. It may be overt as well as covert.

The different types of violence perpetrated against women are: gang rape, sexual violence, kidnapping and abduction, domestic violence, dowry, wife battering, trafficking, stalking, paedophiles, pornography and violence against women on the internet, sexual harassment and ‘cyberstalking’, trafficking, child pornography, ill



treatment meted out to women prisoners, incest, female genital mutilation and other kinds of violence. Some other forms of violence are: verbal abuse, physical assault, forced prostitution, forced incarceration, medical negligence, child sexual abuse, female foeticide/infanticide and emotional violence.

The history of violence against women remains unclear in available global historical accounts. This is in part due to the fact that many kinds of violence against women (specifically rape and incest) were unreported or under-reported, often due to societal norms, taboos, stigma, and the sensitive nature of the subject. Although the history of violence against women is difficult to track, some claim that violence against women has been accepted, and even condoned and legally sanctioned throughout history. For instance, in Manusmriti, the cold blooded murder of dalits and dalit women by upper castes was not considered a murder and they got away with no or light punishments. Violence against women is prevalent in Indian society, but it is more rampant against dalit women and the attacks and threats to the dalit communities and women are on the rise (Manorama, 2008:450).

### Dalit Women in India

The word 'Dalit' literally means poor and 'oppressed' women. Untouchability is a distinct Indian social institution that legitimizes and enforces practices of oppression and exploitation against people born into particular lower castes, and legitimizes practices that are humiliating, exclusionary and exploitative. Although comparable forms of discrimination are found all over the world, untouchability is made unique by the fact that its parent institution, the caste system is found only in the Indian subcontinent. As per Beteille and others, caste has managed to reinvent and reproduce itself in Independent India such that the fault lines of caste have not been blurred appreciably in the realm of poverty, occupation, modernity or education. Strict segregation and rigid hierarchy, these are the fundamental aspects of the caste system (Shah & Others, 2006:19).

As per Census of India, 2011; dalit population in India is 166 million approximately (16.2%). A large number of them are still living in a precarious existence, shunned by much of society because of their rank as “untouchables” or Dalits literally meaning “broken” people. Dalits are placed at the bottom of India’s caste system. They are discriminated against, denied access to land, forced to work in degrading conditions, and routinely abused, even killed, at the hands of the police and of higher-caste groups that enjoy the state’s protection.

Dalit women face four-fold discrimination and exploitation on accounts of caste, class, gender and patriarchy. Dalit women are victims of sexual abuse. In what has been called India’s “hidden apartheid”, entire villages in many Indian states remain completely segregated by caste. National legislation and constitutional protections serve only to mask the social realities of discrimination and violence. Most Dalits continue to live in extreme poverty, without land or opportunities for better employment or education (Human Rights Watch, 1999:2). Dalit women handle most humiliating and under paid jobs and are put under immense social pressure to take up the occupation themselves, for example, manual scavenging. In a nutshell, it can be implied that the status of dalit women in Indian society even after 67 years of independence is still very low.

## Research Methodology

The present research paper is an inter-disciplinary endeavour with the application of Mixed methods methodology. Latest statistics from NCRB was utilized as quantitative data and qualitative observations were drawn from other studies, newspaper articles and Conferences. Secondary data from the websites of NCRB, National Commission for SC/ST, and Two-day Conference of The **National Tribunal – Violence against**

**Dalit Women in India** held on 30th September and 1st October, 2013 at New Delhi were used.

## Incidence of Violence against Dalit Women

The economic and political vulnerability of dalit women exposes them to multiple levels of violence. Across all states, women speak of suffering at the hands of their husbands, who often reach home drunk, and verbally abuse and beat them. Harassment takes numerous forms: non-Dalits frequently use abusive and derogatory language when addressing dalit women. 'Teaching a lesson' to dalit men involves violating their 'property', i.e. the bodies of dalit women. When non-dalits rape dalit women, the honourable judge time and again determines that the rapist acted out of lust, and that the accident has nothing to do with the victim being Dalit (Dalit Human Rights Monitor 2000, Sakshi cited in Shah & Others, 2006:123-125). Dalit women face four types of violence: targetted, compound, group/gang and multiple. They also face four types of rapes: rape, aggravated rape, gang rape and rapes in custody/police (Irudayam and Others, 2011)

The official statistics only capture the tip of the iceberg. The actual incidence of atrocities is much larger in magnitude since many incidents are not reported to the police and remain unrecorded. This shows that while a large number of atrocities against dalits go unreported, even registered offences against dalits suffer huge delays in the judicial process and remain unsettled. An analysis of court statistics also revealed that the conviction rates for the perpetrators of violence were very low and conversely, the acquittal rates were very high (Patel, 2004). In addition, many dalits are tortured and subjected to humiliation like being garlanded with shoes, their faces blackened or being forced to ride an ass. Dalits are considered untouchables in Indian society, yet rape of dalit women is not considered a taboo by the upper castes. In fact, the latter uses rape as an instrument of continuous subjugation.

**Table 1.1: Prevalence of Crime against SC, ST and Women and their Conviction Rate**

Crime Heads	Cases Reported	% to total IPC Crimes	Rate of Crime	Charge-sheeting Rate	Conviction Rate
Crime against SCs	33719	1.4	2.8	90.7	31.8
Crime against STs	5756	0.2	0.5	93.2	19.2
Total Crime against all Women	228650	9.8	18.9	92.0	26.9

Source: NCRB, 2011.

As per Table 1.1, total crimes reported against SC and ST women are 14.74% and 2.51% respectively which is well below their national population as per Census, 2011 which is 16.2% and 8.2% respectively. The conviction rate in the crime against SC women is 31.8 which is higher than all women and ST women. Further, as per other NCRB statistics, a total of 1557 cases of rape (rate 0.1) of women belonging to SC were reported in the country during the year 2011 as compared to 1349 cases in the year 2010, thereby reporting an increase of 15.4 %. In fact, Uttar Pradesh remains at the top in crimes against women, primarily due to rape, torture for dowry and harassment. Uttar Pradesh has reported 397 cases accounting for 25.5 % of the total cases reported in the country followed by Madhya Pradesh (21%).

In stark contrast, studies conducted by others point to an extremely disturbing fact that there has been a five-fold increase in rapes. As per CSO, crimes against women, it states, increased during 2004 by 9.8 percent over 2003 and by 13.9 percent over 1999. According to a study conducted by Irudayam and Others in 2011 in five states of India, namely, Andhra Pradesh, Bihar, Tamil

Nadu, Pondicherry and U.P. ; as high as 40 % of the cases, dalit women have no legal redress. The efforts of 26.6% victims of violence are blocked at some stage and only a mere 3% accused face trial and 0.1% are getting justice.

**Table 1.2: Prevalence of Different Types of Crimes on SC Women**

S. No.	Crime Heads	Years					% Variation in 2011 over 2010
		2007	2008	2009	2010	2011	
1.	Murder	674	626	624	570	673	18.1
2.	<b>Rape</b>	<b>1349</b>	<b>1457</b>	<b>1346</b>	<b>1349</b>	<b>1557</b>	<b>15.4</b>
3.	Kidnapping & Abduction	332	482	512	511	616	20.5
4.	Dacoity	23	51	44	42	36	-14.3
5.	Robbery	86	85	70	75	54	-28
6.	Arson	238	225	195	150	169	12.7
7.	Hurt	3814	4216	4410	4376	4247	-2.9
8.	<b>Protection of Civil Rights Act</b>	<b>206</b>	<b>248</b>	<b>168</b>	<b>143</b>	<b>67</b>	<b>-53.1</b>
9.	<b>SC/ST Act</b>	<b>9819</b>	<b>11602</b>	<b>11143</b>	<b>10513</b>	<b>11342</b>	<b>7.9</b>
10.	Others	13490	14623	15082	14983	14958	-0.2
	Total	30031	33615	35594	32712	33719	+3.1

Source: NCRB, 2011.

The incidence of crimes reported in Table 1.2 corroborates the studies conducted by Irudayam and Others, Central Statistical Organisation (CSO) studies which indicate that the incidence of rapes against dalit women is increasing at a rapid pace. If we analyse the data provided from 2007-2011, there has been a 15.4% increase in the incidents of rape against dalit women. The problem is compounded by the fact that the dalits face a great difficulty in filing FIRs, especially in rural areas, and some

families consider rape as a stigma, henceforth, some rape cases go unreported. After the incidents of kidnapping, abduction and murder, rape has witnessed the largest increase in 2010-2011.

## Causes of Violence against Dalit Women

There are multiple causes of violence against dalit women and the causes have been classified into four different heads, namely, socio-cultural and economic Causes, mental and psychological causes, administrative & governance causes and other causes.

### *I. Socio-cultural and Economic Causes*

- *Caste System:* Due to the caste system, dalit women face the maximum violence, especially in rural areas. Studies by Manorama and others have indicated that roughly 80 percent of sexual violence against women are faced by dalit women, tribal women and poor women.
- *Patriarchal Structure of Society:* Indian society is male dominated. Gender inequality and the continuation of a "culture of silence" are foremost reasons that dalit women are victims of violence within their homes and outside of it.
- *Poor Economic Conditions:* Dalit women face the brunt of under-development and poverty, henceforth, they are considered as soft targets for sexual violence.
- *Assertion amongst Dalits:* As more dalit women become educated, they are beginning to accept positions with higher pay and higher power, which can be perceived as a threat to some men. Women are becoming more vocal on the issue of violence following an increase in awareness and understanding regarding their rights. Some men just cannot see women doing well in life while they themselves are unemployed or underemployed. They nurture a grudge against them and commit crimes against them to vent out their frustration.
- *Landlessness:* Dalits ownership of land is very low and in rural economy, land ownership is the biggest criteria of a family's

status. Henceforth, landlessness leads to powerlessness and the dalit women are exploited.

- *Lack of political voice:* Dalit women suffer from 'Culture of Silence' and are marginalised politically as in other spheres of life. Bhaujan Samaj Party (BSP) has made inroads into few regions of India. In the realm of political rights, especially electoral rights ensured to dalit women as citizens by the Indian Constitution, several dalit women spoke of the assertion of basic political rights provoking violent dominant caste backlashes.
- *Rapid Change in Moral Values:* Due to globalization, societies are witnessing great socio-cultural changes. In urban areas, especially, an erosion of values consequent on fast paced changes, and an influx of rural with very different value system have a lot to do with crimes against women. For e.g., the sacramental marriages and close family ties are weakening.
- *Misuse of Technology:* Technology is gender-neutral but is being employed against women, like, blackmailing women by making MMS.

## **II. Mental and Psychological Causes**

- *Faulty Social Conditioning:* Discrimination against girl child is due to faulty social conditioning. Girls are considered inferior and the discrimination against the girl child begins the moment when the girl child is born.
- *Abnormal Personality Type:* Most of the sexual crimes like rape, indecent assault, abduction, outraging the modesty of women and bigamy are the result of marred mental or sexual outlook, depravity and defective mental state.
- *Substance Abuse:* Violence against women is committed under the influence of alcohol or drugs or both. Studies have indicated that excessive drinking sometimes results in wife battering and rapes.

- *Lack of proper Moral Values:* Lack of proper moral education is a potent cause of moral depravity, which may lead to violence against women.
- There a host of other factors which lead to violence against the dalit women like shattering their self-confidence and self-esteem. Settling old scores with victim's family can also be one cause behind violence. Labelling a dalit woman as of loose morals can also lead to her rape. In case of dalit woman demanding justice or her rights, rape can be an instrument of backlash for her assertiveness.

**III. Administrative & Governance Causes:** There are some major policing and administrative problems which are indirect causes behind violence or may aggravate the violence against dalit women. Studies by different scholars and agencies point towards the following deficiencies as far as the policing is concerned.

- FIRs are wrongly written, tampered with, the names of the accused are often left out from the FIRs, women who have just been violated are made to give statements and these statements are then changed or falsely recorded (**The National Tribunal – Violence against Dalit Women in India** held on 30th September and 1st October, 2013 at New Delhi).
- Some respondents of a study on violence against women revealed that they were pressurized by the police to withdraw their complaints (Ahuja, 1987:112).
- In a southern state during 1998, 28.08 percent of the total rapes were reported after 24 hours and within 7 days of their occurrence. Shockingly enough, around 17.83 % of the reported rape cases were reported after six months (Vadackumchery, 2000:48).
- The NHRC in its Report on scheduled castes in 2002 observes that "even in case of heinous crimes, the police machinery in many states has been deliberately avoiding SCs and STs".



There is a delay in filing of FIRs, invoking relevant sections of SC/ST Act.

- Sakshi in its report on Human Rights Watch 2000 has identified following methods used by the police to defy the objectives of the law, like, not registering the case, presenting the victim complaint to seek compromise to help the perpetrators, framing false cases against the victims, refusing to register cases under SC/ST Atrocities Act, 1989; registering FIR under PCRA (Protection of Civil Rights Act), 1955 (cited in Ahlawat, Singh, 2008:243-244).
- *Delayed justice:* Due to the loopholes in the legal system, the victim gets the justice after a long trial, leading to harassment, frustration and suffering in silence. Dalit women get justice after a lot of delays, for e.g., the case of Bhanwari Devi (Vishakha Judgement).

#### **IV. Other Causes**

- *Basic Survival issues:* Dalit women are most underdeveloped and unempowered community. Other causal factors which provoked violence include those relating to women's basic livelihood, factors such as housing, basic amenities, education and health that constitute the right to a decent standard of living.
- *Probity and false accusations:* The underprivileged women are perceived as inherently criminal, a consequence of their low status coupled with low caste. They are accused of crimes which they have not committed.
- *Backlash on demand for justice:* Women who seek justice are attacked to silence them and preventing them from seeking legal redress, punishing them further for daring to seek legal justice .
- *Illiteracy and lack of community support* also factor into the continued violence towards women, as women have no means through which to report crimes. This makes them

more likely targets for sexual violence, and increases the likelihood of men to feel emboldened to act in this way. Lack of property rights and financial independence also exacerbate this issue, as often a woman has no alternative living arrangements or means of livelihood.

- Lack of implementation of laws is another cause for increase in violence against dalit women. There is no data available on eve teasing, sexual harassment at work place etc. Finally, the largest perpetrator of allowing violence towards women to continue is rampant corruption. Lax enforcement of the criminal code and the low priority given to cases of violence towards women exacerbate the obstacles facing women hoping to receive legal reparation for crimes.
- The other causal factors of violence against women are: perpetrators utilized dalit women as tools for exacting revenge, perpetrators accused dalit women of witchcraft.

### **Consequences of Violence against Dalit Women:**

There are devastating far-reaching consequences of violence against dalit women on their mental psyche, physical, social sphere and economic sphere, etc.

- *Economic Loss:* Violence against dalit women may permanently injure or render a woman as physically challenged which may lead to permanent loss of her livelihood. Dalit women are underprivileged and most vulnerable section of society, therefore, lack of job may render them permanently poor.
- *Physical Disability:* There are plethora of after-effects of violence on dalit women, like, short-term physical injuries, long-term physical health complications, long-term sexual health complications, permanent physical disfigurement or disability, pregnancy resulting from sexual violence, miscarriages resulting from violence.

- *Biological effects:* The sexual violence against dalit women may lead to injuries of sexual organs, miscarriages and unwanted/illicit pregnancies.
- *Social effects:* Ostracized by natal or marital family, deserted by husband; ostracized by community, unable or finding it difficult to marry, economic punishment, curtailment of freedom of movement and residence, education stopped or hindered. The victim may be socially ostracised by own family or by society or both.
- *Broken Homes:* The violence against dalit women in the household by in-laws or husband leads to broken homes. Children are the worst sufferers.
- *Dropping out from Education:* As an aftermath of violence against dalit girls, they may be forced to drop out of schools/colleges. Some studies point towards sexual violence as one of the cause behind the high drop-out rate of dalit girls, especially in rural areas.
- *Psychological Effects:* Violence against dalit women (VADW) may lead to helplessness, fear and anxiety, low self-esteem, feelings of shame, self blame, and suicidal tendencies and in some cases, social boycott. Violence against dalit women leads to deep scars on the psyche of the girls; but also adversely affects her education, work, and participation in public sphere.

### Strategies to Counter VADW (Violence against Dalit Women)

For combating violence, it is essential to redefine the notion of power, so that the violence as a way of maintaining control loses its inherent value. It would entail making structural changes in societal and legal systems, challenging community norms on violence and holding perpetrators accountable. Any dalit assertion is met with upper caste violence. The high proportion of reported crimes under the SC/ST (Prevention of Atrocities)

Act strongly suggests that the crimes against SC and ST citizens further aggravate their already underprivileged status (Bajpai and Others, 2005:75-85). Singh and Dhingra have classified strategies into two types, i.e. preventive and protective strategies to curb violence against women. The preventive strategies are radical social work, awareness building, pressure groups, women's organizations/NGOs, and effective implementation of law against domestic violence. The protective strategies are counselling, improve women's economic capacities, provide comprehensive medical and psychological services, promotion of collaborative efforts, child support services, establishing special cells (Singh and Dhingra, 2008:171). Furthermore, Irudayam and Others have also specified some strategies to counter violence against the dalit women. A holistic multi-disciplinary approach is needed for effectively tackling the violence against dalit women, some of the strategies are discussed as under.

- *Proactive Role of the Police Machinery:* Various studies have shown that the conviction rate in cases of atrocities against the dalits is less than 2 percent, which is a matter of serious concern (Ahlawat, 2008:249). Henceforth, police's role in tackling atrocities on dalit women needs to be improved. Filing speedy FIRs, ensuring speedy trials and justice are needed on a priority basis. Most of the rape cases go unreported because victim does not feel comfortable in narrating the incident to the male officer. Hence, female officer should be incharge to investigate the cases of rape. Investigator investigating rape cases must be educated how to effectively conduct investigations without contaminating evidence. To curb the menace of sexual violence, group of women officers should be located in the sensitive areas like school and colleges. Some other measures required are, change in police's attitude, indifference to crime against underprivileged needs to be tackled, responsible Policing, professionalism in policing, capacity building, attitudinal changes, meeting the expectations of society and police's

demeanour needs to be soft and gentle (Ahuja, 1987: 55-56). Periodical drives, sensitive areas, specially designated officers, swift prosecution, immediate relief, fines, legal assistance, abolition of untouchability are some other measures to make the police force more effective, efficient, gender and caste sensitive (Padhi, 2007:102). A provision for flying squad, a police van with a lady police officer must be made in the central office of Crime against women cell around the clock (Goel, 2006:113). Community policing philosophy needs to be implemented at grassroots on priority basis. The criminal justice system has to be urgently brought under some kind of monitoring so as to redress its failure in the case of dalit women. Criminal cases should be filed against officers who tamper with evidence, protect criminals and work to support criminals. The DSP (Deputy Superintendent of Police) should be a woman who deals with the case of violence against dalit women. Along with the above, right from their training in the Police academy there should be provisions to sensitize officers to the SC/ST (POA) Act and other such issues related to the dalit community and specifically to dalit women. (Preliminary Report: National Tribunal Violence against dalit Women held on September 30- October 1, 2013 at New Delhi) Compiled by Namrata Daniel, Binish Hafees and Jenny Rowena).

- *Legislative Measures:* The Scheduled castes/Scheduled tribes (Prevention of Atrocities) Act 1989 should be amended for timely investigation and disposal of cases of violence against dalit women, and to broaden the scope of offences covered by the Act, to include such crimes as social boycotts and violence around non-payment or inadequate payment of wages, as per the recommendation of NHRC.
- *Enforcement Measures:* The Indian state must ensure the full and strict implementation of laws in place, to protect dalit women's human rights like legislations prohibiting such practices as dowry, Devadasi/Jogini dedication, manual

scavenging or child marriages, and implement measures to ensure the abolition of untouchability.

- *Rehabilitation Measures:* Special services for dalit women victim survivors of violence need to be established so that they can benefit from professional assistance of psychologists, doctors, lawyers, marriage counsellors, etc. The Government should provide immediate relief, financial, psychological, and legal or all types, and holistic rehabilitation to the dalit women victim-survivors and their family members.
- *Awareness Raising Measures:* Specialised programmes for awareness-raising/sensitisation and training of police officers at all levels, judges and prosecutors, panchayat representatives and bureaucrats at all levels with regard to the situation of dalit women in general, and violence against dalit women in particular, are necessary.
- *Public Education Measures:* Besides educating dalit women about their legal rights, there is an urgent need to organize, support and fund community-based education, legal literacy campaigns and training aimed at increased knowledge and understanding of the causes, consequences and mechanisms of violence against women in general and underprivileged women in particular.
- *Other Socio-economic Measures:* Recognizing that economic dependence is a significant reason behind dalit women not filling police cases regarding violence from dominant castes, violence needs to be addressed not merely as a law and order problem alone, but as a socio-economic issue. Dalit women's right to development must be ensured. An active and visible policy of mainstreaming a dalit gender perspective in all government development policies and programmes should be implemented, particularly the five-year plans and programmes. A comprehensive national labour policy the vast unorganized sector in the country, of which a dalit women form a large percentage, is also required.

- *Change in Research & Academics:* Need for policy-relevant feminist research, rooted in academics and activism. There is a need for base line survey to identify the vulnerable areas in our country. Gender segregated data should be collected in order to have data on Rape, Eve teasing, Stalking, Sexual Harassment, etc. Gender and Caste sensitized school curriculum and Government of India should collect more gender desegregated data. Tripartite engagement between Government, NGOs and Academia is the need of the hour for making our society a 'violence free society' (Irudayam and Others, 2011).
- *Media* plays a vital role in disseminating information and shaping society. And so media personnel should be gender sensitive towards women issues. In order to sensitize them more and more workshop on gender sensitization should be organised by government agencies and NGO.
- *Judiciary* is the strongest pillar of the society but lack of sensitivity of judges sometime fails to ensure justice to the women. Hence there is a need to sensitize the judges so that the judgment should be gender neutral.
- As per Ghazvini (2002:470-478), dalit women victims of emotionally traumatic violence should be given *special counselling*, Enlisting victim's cooperation is a must, Mediation skills are needed to have a coordination between law enforcers and victims, protection of witnesses/victims, use of evaluation research to monitor and assess the victim protection policy.
- *Making India a gender violence free country* necessitates going beyond violence and ensuring health, work, education, decision making etc. The following areas needs to be focused: ensure access to quality health care, ensure reproductive rights, prevent sexual harassment, make the workplace safe, promote women's participation in decision-

making, skill development to ensure decent work, women friendly health clinics, ensure policies and plans for women are effectively implemented, money allocated for schemes for women and girls should be effectively spent, functioning should be transparent, the public should know how much funds are allocated in women's schemes and how are they spent. In other words, gender budgeting is the need of the hour and we should remember that women are not a homogenous category. Strategies must be aimed at different segments, at the same time, a holistic approach is needed. We cannot eliminate violence without changing patriarchal mindset or empowering women.

- *Some Other Measures:* Empower civil society to take action when something untoward takes place against Dalit women, socially redefining patriarchal norms and removing gender bias, change in women's values and their parents thinking, strengthening women's organizations and National Commission for Women (NCW) by enhancing its role and the powers bestowed, adopting humanistic approach to victims and providing Legal Aid or Assistance.
- However, all the above mentioned measures work only in the public sphere. What about the private sphere? For instance, domestic violence, child sexual abuse, rape. Empower girls and women to stand up for themselves. Awareness regarding girls human rights among both women and men. Repeated Gender sensitization of boys. Effective helplines with power to assist. Civil society to help girls and women in distress. In this regard, we can look at the Manipur Meira Paibi model where when a woman suffers domestic violence; all women come to her aid. They even patrol the streets.

## Concluding Observations

In this era of internet, increasing violence against women is tarnishing the image of the country globally. Violence against



women is a major barrier to development, and, unless its root causes are addressed, many of the Millennium Development Goals (MDGs) will not be met. The major problem is that violence against women is often not recognized as a priority, and if the violence is against the underprivileged women, it's often neglected and ignored.

Dalit women face the maximum brunt of violence because they face four-fold multiple marginalities: caste, class, gender and patriarchy. Even their own caste men are discriminating against them and they are lagging behind in various indicators of development. The violence against dalit women is due to multiple causes; hence, the solutions should be multi-pronged. The role of civil society, judiciary, media, bureaucracy, and police should be more pro-active rather than reactive. Annihilation of "Castes of Mind" is the utmost need of the hour. Organizations such as One Billion Strong and local NGOs movement are gaining momentum in India against widespread violence against dalit women. The culture of impunity is the biggest problem which our society faces. The Indian Government should take the support of the global civil society, India's partners in business, financial institutions to completely eliminate the violence against dalit women and women, in general.

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# Hope, Optimism and Gratitude in Indian Police Force

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## Keywords

*Hope, Gratitude, Optimism*

## Abstract

*The present study was conducted to examine the status and relationship of gratitude, hope and optimism and how these three variables affect each other. In this study, we figured out that hope, gratitude and optimism lay an impact on the social responsibilities of police officers. Simple random sampling of 100 police officers was done. Standardised tools of hope, optimism and gratitude were employed from the correlational analysis, it was investigated that hope and gratitude have strong positive significant correlation. In the recent times there have been studies which show the relationship among the positive psychological constructs such as hope, gratitude and optimism.*

## Introduction

**E**mpowered by the state to enforce the law, protecting property and controlling civil disorder, and constituted by a body of trained personnel is called as a police force. Legitimizations of force are under them. People confuse with the

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names of the police forces include constabulary, gendarmerie, police department, police service, crime prevention, civil guard or civic guard but they are alternative names of police force. Adherents can be stated as police officers, rangers, peace officers or civic/civil guards. As police force comes under public domain, public expects police to be approachable and helpful. They are asked to work in settings and conditions which are relatively unusual. They have to cope with new and different encounters, organisational structure of police has to be sturdy and man power should be of upright strength, fully equipped. Being in police force requires countless skills of management and leadership and it is totally significant for the police force to maintain their relations with the community. Police force has many divisions which are accounted for certain duties. CRPF is one of such outlet which is a Para-Military force and comes under the Ministry of Home Affairs of Government of India. It is also known as India's largest Central Armed Police Force. It has a big role in supporting the State/Union Territories in different types of strategic operations to uphold the Law and Order and to tackle insurgency. When started on 27<sup>th</sup> July 1939 it was known as Crown Representative's Police. Independence gave it a new name the Central Reserve Police Force on enactment of the CRPF Act as on 28th December 1949.

## Hope

Hope has always been an arena of interest for social psychologists. There have been many attempts to explain this particular variable in the field of positive psychology. Organizational scholars have always been keen to understand the reason for a recurrence of socially irresponsible organizational behaviour and it has been found out that hope plays a key role in affecting our behaviour in a society. Hope has been defined as "positive motivational state that is based on an interactively derived sense of successful agency (goal-directed energy) and pathways (planning to meet goals)" (Snyder et al., 1991). Forward looking and action oriented

are emotional states of hope. Higher levels of hope have been associated with higher problem-solving expectation (Schwartz and Post, 2002) and greater social problem-solving abilities (Chang, 1998), high hoppers have optimistic emotional sets and the thirst of zest that stems from their histories of achievements. Whereas, people with low levels of hope have negative sets with a sense of emotional flatness that shoots from their past experiences of failing in goal pursuits. Researchers have reported that hope is negatively associated with depression (Chang, 2003; Chang & Desimone, 2001) and positively associated with life satisfaction (Bailey & Snyder, 2007; Gilman, Dooley & Florell, 2006).

Hope has been a powerful fundamental force in all civilizations including western civilization. Hope has been so interlaced into the fabric of our civilization's eras and events that it can be hard to detect, like yeast in bread. Self-efficacy and optimism are companions of hope. All three of these constructs concern expectancies regarding the attainment of forthcoming positive conditions. There have been attempts for theoretically and empirically distinguishing hope (Aspinwall & Leaf, 2002). It is important to note, that the subjective experience of hope depends upon a belief that concrete pathways exist but not on the existence of concrete pathways (Snyder et al., 1991). "The perceived capacity to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" is called as hope.

## Optimism

Hope and optimism are two constructs of positive psychology that are distinguishable. Optimism has been defined by Scheier and Carver (1985) as the "stable tendency to believe that good rather than bad things will happen" - generalized encouraging results from expectancies about the future. On the other hand, pessimism can be referred to as the widespread negative outcome expectancies about the forthcoming event or situation. Optimism is a psychological approach that understands circumstances and

occasions as being the greatest. The concept can be extended to include the hope that future conditions will become as ideal. Optimism is a positive psychological construct which depends on an individual's way of perceiving his or her future outcome expectancies for improved subjective well-being during hardship or difficulty. The relationship of optimism with hopelessness is of an inverse nature, which is generally a risk factor for depressive disorders (Alloy et al., 2006). In addition to favourable. expectancies of outcomes, optimism seems to discuss about resilience to traumatic events in life, which are related with risk for both start and relapse of psychopathology (Ellicott, Hammen, Gitlin, Brown, & Jamison, 1990).

Optimism has been a concept which has been linked to many constructs in Psychology. There are evidences proving that with higher level of optimism an individual can have prospects of higher well-being. This has made the social psychologists believe that well-being and optimism has a significantly positive relationship between each other and a significant increase of an individual's optimism can lead to a noteworthy increase in well-being. Individuals with an optimistic illustrative style continue to follow their valued goals and control themselves and their personal positions using effective coping strategies even during adversities, so that their desired goals are achieved.

## Gratitude

Gratitude can be identified under the category of moral effect which corresponds with other moral emotions such as guilt and empathy. The social and personality factors which are already related to gratitude are consistent with the concept of gratitude as an influence that is pertinent to people's cognitions and behaviours in the moral realm. It involves individual differences in how often and strongly people encounter the emotion of gratitude, as well as individual differences in the range of affairs which stimulate the emotion (McCullough, Emmons & Tsang, 2002). Gratitude is an



influential process which is associated with a more positive and grateful viewpoint concerning life. Nearly across all cultures and through most human history, gratitude has been considered as standard and normative feature of social life and personality of an individual. Gratitude have three most important features which makes this concept of psychology more deserving for theoretical and empirical attention. First, it is not completely unusual emotion, even though in comparison to other positive emotions it is experienced slightly less (Sommers & Kosmitzki, 1988). Second, although around the world gratitude is felt and conveyed differently (Sommers & Kosmitzki, 1988; Unno, 1989), linguistic and cultural devices have been developed to articulate gratitude as people in most cultures seems to experience gratitude. Therefore, cross-cultural similarities and difference in emotional encounter and manifestation can be explained by studying gratitude and its functions in individual and social contexts. Third, high adaption may be one of the feature of gratitude (Gallup, 1998).

## Method

In the recent years work on Hope, Optimism and Gratitude has received considerable amount of attention by the researchers. The pathway mediating the three positive constructs and their influence on various life domains are complex. In the present study an attempt has been made to examine the relationship between Hope, Optimism and Gratitude and the way they are interrelated.

## Sample

In order to achieve the objective, study was conducted on 100 participants at CRPF camp, Delhi city. Their demographic details were also explored. Data was collected using simple random sampling technique. Mean age of the participants was 39.

## Measures

Hope was assessed by a standardized scale of 12-items, developed

by Snyder et al (1991). Responses were given on 8-point scale with higher scores indicating high level of hope. Rating scale varying from 1 (Definitely False) to 8 (Definitely True). The scale has 2 dimensions namely agency (i.e. goal-directed energy) and pathways (i.e. planning to accomplish goals). Of the 12 items, 4 items were of Agency subscale optimism, 3 items measure pessimism, and 4 items serve as fillers. Respondents rate each item on a 5-point scale where 1 = I agree a lot and 5 = I Disagree a lot. LOT-R is a revised version of the original LOT (Scheier & Carver, 1992). The original LOT had 12 items: 4 worded positively, 4 worded negatively, and 4 fillers (Scheier & Carver, 1992).

Gratitude Questionnaire-Six-Item Form is a six-item self-report questionnaire intended to assess individual differences in the proneness to experience gratitude in daily life. Respondents sanctioned each item on a 7-point scale (where 1 = strongly disagree and 7 = strongly agree). There are no dimensions, but has two reverse items. Cronbach's alpha estimates for the six-item totals have ranged from .76 to .84 (McCullough, Emmons & Tsang, 2002).

## Results

The obtained data was analysed using descriptive statistics (Mean, SD, and Percentage) and bivariate correlation was used to examine significant relation among the three positive psychological constructs.

**Table1: Descriptive Statistics**

Variables	Mean	SD
Total Hope	21.19	3.26
Total Gratitude	25.55	7.08
Total Optimism	16.20	1.48

Above table shows means and standard deviations of all hope, gratitude and optimism.

Table 2: Correlation Coefficients

		Total Hope	Total Gratitude	Total Optimism
Total Hope	Pearson Correlation	1	.610**	.213*
	Sig. (2-tailed)		.000	.033
Total Gratitude	Pearson	.610**	1	.249*
	Correlation			
	Sig. (2-tailed)	.000		.013
Total Optimism	Pearson Correlation	.213*	.249*	1
	Sig. (2-tailed)	.033	.013	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Table indicates that the three positive constructs are inter-related with each other. Hope ( $r=0.610, p<0.01$ ) is positively and significantly related with gratitude. Similarly, Hope also shares a positive correlating significance with Optimism ( $r=0.213, p>0.05$ ). Optimism and Gratitude also has a significant relationship which is positive ( $r=0.249, p>0.05$ ).

## Discussion

Results of the study clearly indicate that correlation between Hope and Gratitude is much stronger than the correlation between Hope and Optimism. The results evidently show that officers working in police force have high level of hope and Optimism. The mean score of hope and optimism is 21.19 and 16.2, respectively. The level of Gratitude is moderate, i.e. 25.55. It can be concluded by the results that for effectively carrying out their social responsibilities police officers keep their level of hope and optimism high. Relationship shared by the three constructs is also positively significant. From the results we can deduce that

the three positive constructs are inter-related. One construct can determine the other as they have positively significant correlation. Gratitude and Hope have a strong correlation between them. There have been studies which support these findings. Study conducted by Anderson et al. (2006), examined hope and gratitude of U.S. employees, and the study revealed that feelings of hope and gratitude have a positively significant relation and these feelings increase concern for social responsibilities. Wong and Lim (2008) performed a study to examine the relationship between hope and optimism and correlational analysis showed that optimism and hope are significantly correlated with each other. Snyder et al., (2007) explored the hope and optimism related to life satisfaction. The study was conducted in which hope was measured by the Adult Hope scale (Snyder, Harris et al., 1991). It was found that Agency subscale of the Adult Hope scale was a better predictor of life satisfaction.

The present study shows that optimism and hope share a positively significant correlation but in comparison to gratitude and hope it is not that strong. Alarcon, Bowling and Steven Khazon (2012) conducted a meta-analytic examination on optimism and hope. In the analysis, they examined the relationship of optimism and hope and they also examined other several potential correlates and consequences of hope and optimism. The study suggested that the two psychological constructs are distinguishable from each other.

### Limitations

The sample size of the present study was small. Therefore, findings of the study cannot be generalized and also require further replication. In future, inclusion of large sample representative of all CRPF (force) personnel can be prepared to enable generalizability of the result. The design of the study will be improved and future study could be carried out by using more variables. Social responsibility can be added as another variable in the study.

## Conclusion

The study concludes that the three constructs of positive psychology have a positively significant correlation with each other. Although hope and gratitude have a strong correlation than hope and optimism but all the three are determinants of each other. The study successfully negotiates hope, optimism and gratitude as factors of high level of social responsibilities in Indian police officers.

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# Examination of Handwritten Suicide Note for Authorship and Changes due to Depression: A Case Study

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A. K. Gupta<sup>4</sup>, Vaibhav Saran<sup>5</sup>

## Keywords

*Depression in Handwriting, Suicide Note.*

## Abstract

*The present paper is based on a case received in the Forensic Science Laboratory, GNCT of Delhi. The laboratory was asked to fix the authorship of the questioned writing by comparing it with the provided admitted samples. The laboratory fixed the authorship on the basis of similarities in the individual characteristics. However, in the second part of this paper the handwriting at the time of suicide was carefully studied to evaluate the changes in handwriting due to state of depression.*

## Introduction

**H**uber (1999) defined handwriting as a complex motor skill which is a combination of sensory, neurological and physiological impulses. Factors such as visual perception and acuity, comprehension of form, central nervous

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system pathways and the anatomy and physiology of the bones and muscles of the hand and arm all combine to produce the desired.

Handwriting is affected by various external and internal factors like handedness, gender, age, educational level of the writers, state of mind, etc. As handwriting is an outcome of neuromuscular coordination, so any effect on the mental health of a person also affects writing. Same is true for a case of depression.

Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behavior, feelings and sense of well-being. Depressed people can feel sad, anxious, empty, hopeless, worried, helpless, worthless, guilty, irritable, hurt or restless. They may lose interest in activities that once were pleasurable, experience loss of appetite or overeating, have problems concentrating, remembering details, or making decisions, and may contemplate, attempt, or even commit suicide.

Depression is caused by a combination of factors, such as the person's genes, their biochemical environment, personal experience and psychological factors. The effects of depression on the graphic gesture shapes can be briefly classified as inconsistent pressure, inconsistency and incoherence in keeping slant left/ right, performing individual letters with different slants, sloppiness and mistakes, sudden deviations, irregular amplitudes and vertically - horizontally superficiality and disorder in the general organization of writing in page, differences in pressure between the upper and the lower zones due to exhaustion and relaxation of muscle tone, tendency to transform the angular shapes into threaded movements.

In the present case, a lady was found dead in her house. Her daily diary was recovered from the scene of crime containing a short suicide note in its last written page. The case was examined by the Forensic Science Laboratory, Delhi, for the comparison of questioned and standard writing materials so as to determine

whether the suicide note was written by the deceased herself or by anyone else to make the crime look like a suicide.

### Materials and Methods

The questioned and admitted writings were provided for examination. A personal diary daily written by the deceased was bearing questioned writings, including the suicide note. A note book of college days of deceased containing her writing was used for the comparison purpose. The questioned and admitted writings were thoroughly examined for the general and individual characteristic features of handwriting and were recorded. The handwriting was also scrutinized for the presence of features indicative of depression and accordingly reported in the Table1.

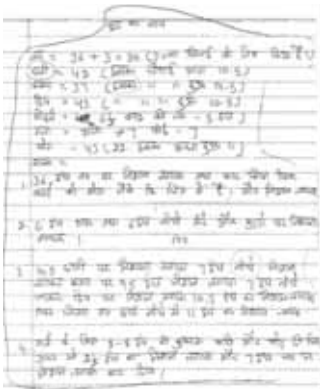


Fig.1 Admitted Writing










Fig.2 Questioned Writing

### Results and Discussion

In the present case, the authorship was under question and was fixed on the basis of sufficient amount of similarities as reported in Table 1. However, a number of features were also noticed which reflect the depressed state of mind of the deceased as reported in Table 2.

Table 1 Handwriting Features identified for authorship

Character Identified	Words selected		Observations
	Questioned	Admitted	
Ka 	'Lekin'Koi', 'Kartey', 'Kar',	'Kali', 'Karkey', 'Iska',	Execution of vertical body part, formation of oval body part which starts from the foot of vertical body part, manner of body curvature at its right side of vertical staff in one pen operation, nature and size of oval body part as observed in questioned writings similarly observed in admitted writings
'Cha' 	'Chaley', 'Chahti', 'Bachchey'	'Chaudai', 'Neechey'	Formation of hindi letter 'Cha', commencement of horizontal part followed by execution of body curvature, nature of depth curvature, execution of vertical body part in continuous pen operation, etc. as observed in questioned writings similarly observed in admitted writings
'Ja' 	'Jab', 'Jeena', 'Najar', 'Jaye',	'Jitna', 'Jaise', 'Jakar'	Formation of hindi letter 'Ja', impulse at commencing part while executing its body curvature followed by manner of horizontal body part, formation of vertical body part which starts from the terminal of horizontal body part, nature and depth of body curvature as observed in questioned writings were similarly observed in admitted writings
'Jha' 	'Mujhe', 'Mujhse', 'Jhoota'	'Jhalar'	Formation of hindi letter 'Ja', impulse at commencing part while executing its body curvature followed by manner of horizontal body part, formation of vertical

			body part which starts from the terminal of horizontal body part, nature and depth of body curvature as observed in questioned writings were similarly observed in admitted writings
<p>'Sa'</p> 	<p>'Mujhse', 'Aisa', 'Se', 'Gussa'</p>	<p>Silai', 'Usmey'</p>	<p>Formation of hindi letter 'Ja', impulse at commencing part while executing its body curvature followed by manner of horizontal body part, formation of vertical body part which starts from the terminal of horizontal body part, nature and depth of body curvature as observed in questioned writings were similarly observed in admitted writings</p>
<p>'Chha'</p> 	<p>'Achey', 'Achchi'</p>	<p>'Chhah', 'Chhati'</p>	<p>Formation of hindi letter 'Chha', execution of both the body curvatures appearing in hindi letter 'Ha', nature and depth of both the body curvatures, etc. as observed in questioned writings were similarly observed in admitted writings</p>
<p>'Dha'</p> 	<p>'Ukar' below hindi letter 'Dha' in word 'Madhu'</p>	<p>'Aakar', 'Ikar', 'Eekar'</p>	<p>Formation of hindi letter 'Dha', execution of both the body curvatures, nature and depth of both the body curvatures with their relative location, manner of downward relatively short vertical body part which starts from the terminal of lower body curvatures and manner of execution of vowel sign 'Ukar' below hindi letter 'Dha' in word 'Madhu' as observed in questioned writings were similarly observed in admitted writings</p>

General writing features	-	-	Similarities were observed in general features such as writing movement, skill, speed spacing, alignment, relative size and proportion of characters and nature of commencing and terminating strokes in both admitted and questioned handwriting
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Table 2: Changes in handwriting due to state of depression

Features studied	Writing at Normal Course of Life	Writing at the time of Suicide
Pressure in Handwriting	Consistent pressure in overall handwriting were observed	Inconsistent pressure were observed
Slant	Consistent among the handwriting with complete letter formation	Inconsistency and incoherence in keeping slant left/right, performing individual letters with different slants were observed
Zone Pressure	Even Pressure were observed in different zones of handwriting	differences in pressure between the upper and the lower zones due to exhaustion and relaxation of muscle tone
Transformation & Movements	Smooth movements with angular shapes	Tendency to transform the angular shapes into threaded movements were observed

## Conclusion

The admitted and questioned handwritings received for examination were thoroughly examined for the general and

individual characteristics to fix the authorship. The results observed as reported in Table 1 concludes that both questioned and admitted writings are written by the same person. However, despite of similarities in individual characteristics, the handwriting shows some variations which are suggestive of depressed state of mind [3]. The variations observed in Table 2 clearly suggest that the author was in a state of depression at the time of writing the suicide note which were absent in the admitted writing.

### Acknowledgement

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# Biometric Recognition systems: An Integrated Approach to Dynamics of identification

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## Keywords

*Forensic Science, Biometrics, Identification, Verification, Recognition, Security.*

## Abstract

*Identification is the buzz word in the world of forensics. It is a complex process and commands a holistic approach. This review underlines the basic concepts of biometrics and its applications for individual identification. The working and the evaluation of the performance of biometric technologies, both unimodal and multimodal, has been critically reviewed. This document attempts to present a comparative view-point of various existing identifiers and particularly emphasizes the reasons for growing acceptance of biometric technologies. The essential characteristics of biometric measurements have been briefly addressed, followed by the discussion on various biometric technological aspects. The purpose of this study is to highlight the importance of various biometric techniques and their use for security purposes and brief of the emerging trends in the area of forensic examination. An effort has been made in this manuscript to include and review almost all universally practised biometric techniques.*

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## Introduction

### *1.1 What is biometrics?*

The term 'Biometrics' finds its origin in two words of Greek literature "bios" and "metric", meaning "life" and "measurement" respectively, which directly translates into "life measurement". However, in a more precise way, this term is defined as "any measurable, robust, distinctive, physical characteristic or personal trait of an individual that can be used to identify or verify the claimed identity of the individual"<sup>1</sup>. It is an automated system of identifying a person based on his or her physical (or physiological) and behavioural characteristics. These automated methods can be described in terms of a scanning mechanism, a processing or comparison unit and an interface with a variety of application system<sup>2</sup>.

### *1.2 Background of biometrics technologies*

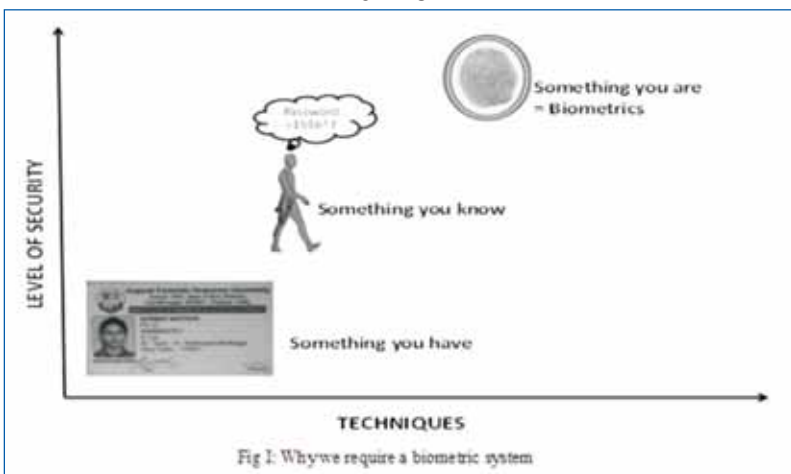
The root of biometric technologies and its origin dates back to a long time. The evolutionary footprints of the biometric technologies indicate that the discipline developed in bits at different centres of the world. One of the earliest known illustrations of biometrics in practice was of the Chinese merchants in 14<sup>th</sup> century who were stamping their children's palm prints and footprints on paper with inks to distinguish the young children from one another (reported by explorer, Jaos de Barros). From here till late 1800s, the process of identification largely relied upon photographic memory. The major breakthrough in the development of this field came when in 1890s, one of the pioneers of this unique identifier technology in Paris, Alphonse Bertillon, devised a distinguished method of multiple body measurements, which hereafter came to be known as "Bertillonage". However, this system soon surrendered to the increasing complexities and challenging real world conditions involved in the process of identification. The failure of Bertillonage led to shifting of focus on to a relatively more promising identifying technology – FINGERPRINTING,

which was developed by sir E.R. Henry of Scotland Yard. Since then the technology has witnessed drastic advancements and has expanded from a solitary technique (fingerprint) to more than 10 reliable methods and from fairly performing unimodal systems to highly accurate multimodal systems<sup>3</sup>.

### 1.3 Importance of a biometric system of identification

The question “why Biometrics” aggregates little importance, as the quest is curbed by numerous advantages which this technology extends. Automated human identification has become an important issue in today’s global information society. Due to the increasing security concerns, a large number of systems currently require a positive and foolproof identification before allowing an individual to make use of their services<sup>4</sup>.

This type of personal identification employs a broad range of biometric applications and techniques to provide a healthy, robust and accurate solution for facility and network access. This technology provides a highly secure identification and personal verification tool against the mounting security threat and increasing quantum of fraud and crime<sup>5</sup>. This system has now been widely adopted for foolproof identification of an individual, an important measure for enhanced security (Figure 1).



Security agencies are now making use of this technology near the high security zones or restricted areas for providing access only to the authorized individuals. This technology has provided solution to the commonly encountered problems caused due to misplaced user's IDs, credit cards or sometimes the user's negligence in remembering their passwords by replacing them with physical and behavioural attribute<sup>6, 7</sup>. This system has intelligently reduced frauds and crimes by employing hard-to-forge technologies (Table 1).

**Table 1 Table showing the importance of a biometric system of identification over other security features**

Probable are Situation	Something you know (A)	Something you have (B)	Something you (C)
Lost	✓	✓	✗
Stolen	✓	✓	✗
Forgotten	✓	✓	✗
Forged	✓	✓	✗
Damaged	✗	✓	✓
Loaned to others	✓	✓	✗

The comparison between various security measures is performed including A: something you know (passport, lock combinations etc), B: something you have (ID cards, ATM cards etc), C: something you are (biometrics). It inferred that biometric system is more reliable for personal identification

It serves as an important tool for the forensic scientist world over, for identifying criminals and proving their guilt beyond doubt. Biometrics introduces incredible convenience for the users along with a low cost additional tier of security. All the users of the system have relatively equal security level and one account is no easier to break than any other.

#### 1.4 Essential characteristics of a biometric

A reliable biometric meant for human identification should qualify some important considerations. Beside its universal presence, a biometric feature should be unique to an individual and must show permanence and consistency, i.e., should be sufficiently

invariant over time. The feature should be easily collectible, measurable and comparable. Tamper-resistance and performance of the technology is directly proportional to its efficiency. The features of the technology should be designed in a manner such that it can't be fooled by fraudulent. The technology should be acceptable to the peoples, i.e., ethically unobjectionable and should be user-friendly for finding wider applicability.

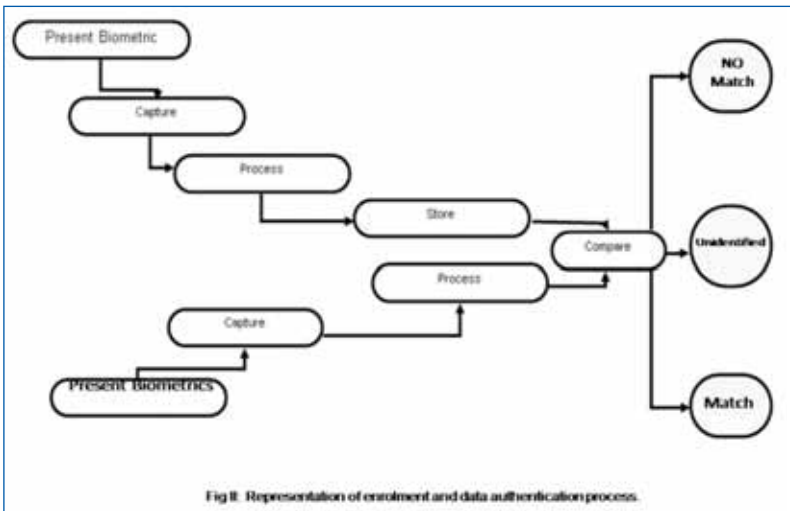
### Biometric system modules

Four types of system modules<sup>8</sup> are recognised in any biometric technology:—

- i. **A Sensor module** which captures the biometric data of an individual. A fingerprint sensor that images the ridge and valley structure of a user's finger is an example for sensor module.
- ii. **Feature extraction module** is the one in which the acquired biometric data is processed to extract a set of salient features. For example, the position and orientation of minutiae points (local ridge and valley singularities) in a fingerprint image are extracted in the feature extraction module of a fingerprint-based biometric system.
- iii. **Matcher module** : "Matcher module" is the one in which the features during recognition are compared against the stored templates to generate matching scores. For example, in the matching module of a fingerprint based biometric system, the number of matching minutiae between the input and the template fingerprint images is determined and a matching score is reported. The matcher module also encapsulates a decision making module, in which a user's claimed identity is confirmed or denied.
- iv. **System database module** is used by the biometric system to store the biometric templates into a database. For example, the enrolment module is responsible for enrolling individuals into the biometric system database.

## How does biometrics recognition system works?

A biometric system is essentially a 'pattern recognition system' that operates by acquiring biometric data from an individual and then by acquiring a feature set from the acquired data and finally comparing this feature set against the template stored in the database. The identity of an individual can be successfully established by measuring his or her features in an authentication enquiry and comparing this data with that in the database (Figure II).



The whole operation is accomplished by making use of certain processes, which are – capture, processing, enrolment, decision<sup>9</sup>. The process of capturing involves the sampling or measuring the raw biometric data using a sensing device. The so captured raw data is then processed by converting it into a numeric identifier, which is generally a binary record. Processing generally involves “feature extraction” but can also include other manipulations like pre-processing or re-sampling of data. The extraction of the characteristic and useful features from the captured data and reduction of the dimensionality of the resulting pattern vectors is generally referred as the pre-processing and feature extraction

problem. Thus, the various biometric traits can be obtained using such extraction technique and are then compared with the biometric templates stored in the enrolment database, where the biometric features are stored for the purpose of comparison<sup>10</sup>.<sup>11</sup>. Generally, the possibility of getting results as a perfect match is negligible as the results are obtained in a statistical form and a perfect score is rare. This is how the decision process will compare the subject biometric data to a pre-stored biometric template from the database and make decision based on a rather robust comparison score relative to adjustable threshold.

Enrolment lays the foundation of any biometric system. It is the process of adding a new biometric identifier to the existing database thereby creating an enrolment data record of the subject. The enrolment data so added should consist of a single or multiple biometric references along with a non-biometric data such as a database serial number or name or a personnel number or a strategic code.

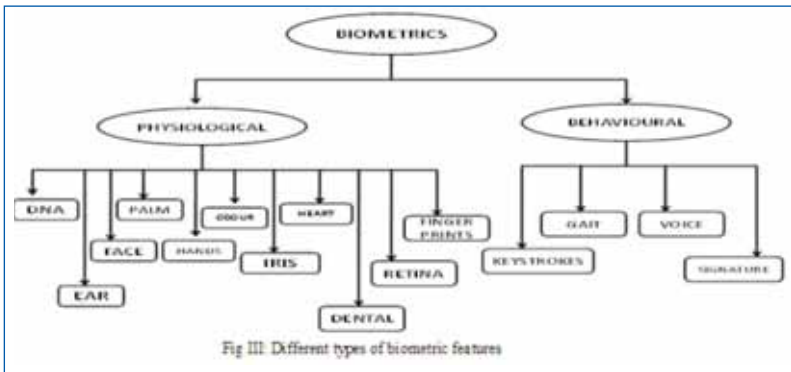
### ***3.1 Identification Vs Verification***

The Biometric Recognition System can work as both: Identification system and Verification system. Identification (1: N) of a subject data is done by matching it against all available records in the database. The process of verification (1:1) involves the validation of person's identity by comparing the subject data with the claimed biometric template stored in the database<sup>12</sup>.

## **4. Overview of some well known biometric features**

Biometric features, as per its definition, are classified in two categories:- physical/physiological and behavioural biometrics (Figure III).

The physiological biometrics measures the inherent physical characteristics of an individual like a person's DNA, facial measurements, facial thermogram, fingerprints, palm prints, hand geometry, vein patterns, heartbeat, iris & retinal pattern, whereas



behavioural biometrics measures those characteristics which are acquired naturally during lifetime including gait pattern, signature, voice and keystroke dynamics.

#### 4.1 *Fingerprint*

This is a very mature and well known technology because of its widespread application in the field of forensic science and law enforcement agencies. Fingerprints are the pattern of papillary ridges over the top phalange of the finger<sup>13</sup>. These patterns are composed of ridges and valleys that are unique for each individual and remain same along the entire life<sup>14, 15</sup>. The fingerprint recognition system acquires the input image through a live scanner by having the direct contact of the finger with the device. Nowadays, the system is using some solid state devices which sense the ridges of the print through electrical capacitance and create a compact digital image. The result is obtained by comparing the minutiae patterns obtained from the user's prints with the templates<sup>16</sup>.

##### Advantages

- i. The system is highly cost effective and accurate
- ii. Ridge patterns are different even in case of identical twins

##### Disadvantages

- i. This process requires of large amount of computational resources



A small fraction of the population can't be fingerprinted because of genetic factors, ageing, environmental or occupational reasons.

#### ***4.2 Facial recognition***

Facial images are the most common biometric characteristic used by human beings for personal identification. It is the fastest growing area of biometrics. With the growing technologies it can convert a photograph or a video image into a code that describes the personal characteristics of an individual<sup>17</sup>. Generally, the facial recognition systems resort to one of two most established protocols: the measurement of facial geometry and Eigenface comparison. The working of facial geometry proceeds by designating a nodal point or known reference point, and then measuring the important parameters such as distance or angle, of various other prominent features present on the face from the reference point. On the other hand, the method of Eigenface comparison clubs a wide range of facial patterns (nearly around 150) and then formulates an idea about the person's identity by extracting the common qualities between the captured face and the available patterns<sup>18, 19</sup>.

##### Advantages

- It is a non-intrusive and cost effective method
- Sampling of faces from remarkable distances can be easily done without the subject's knowledge or prior permission.

##### Disadvantages

- This system faces some problem in recognizing a person's face from the images captured from two different angles and under different lighting conditions
- The face changes with age impose a severe restriction on its usage.

#### ***4.3 Infrared thermogram (facial & hand veins)***

It is possible to capture the heat radiated by the human body using an infrared camera. The pattern is considered unique for each

individual. This technology of infrared imaging is used to scan the back of a fist to determine hand vein structure, also believed to be unique. Like facial recognition technique, facial thermogram also faces challenges and considerations of three-dimensional space and position and orientation of the hand of the subject.

#### Advantages

- It is a non-invasive method
- Used for covert recognition

#### Disadvantages

- Expensive infrared sensors
- Image acquisition is challenging under uncontrolled environments

### ***4.4 Hand geometry***

This biometric involves the determination of the geometric structure of the hand which includes length of fingers, widths at various points on the finger, diameter of the palm, thickness of the palm etc<sup>20</sup>. Hand Geometry system works in two stages: the first stage involves enrolment through a scanner that captures the top view of a user's right hand as he places it on a specific place. The template recorded during an enrolment session consists of five captured images of the hand. The second stage is the comparison one, where the person's hand image is taken, pre-processed, and the necessary features are extracted from it. These features are matched against the pre-stored templates in the database according to the proposed algorithm. The output of the algorithm is a decision that identifies the person as one from the database templates<sup>21</sup>.

#### Advantages

- This is a simple, convenient and inexpensive method
- The small template size is required for the purpose of identification

- The results are not affected due to any environmental change

#### Disadvantages

- Hand geometry is not very distinctive feature as compared to DNA and fingerprints and cannot be used for identification of an individual from a large population. It may rather be used for verification purposes
- Bone and joints disorders may alter the hand dimensions puts a severe limitation to its use.

#### **4.5 Retina**

The veins of the retina provide a unique pattern that can be relied upon to distinctively identify an individual. This vascular configuration of the retina can be referred to as an “eye signature” and is proven to be a characteristic of each individual and eye respectively. Retinal vasculature is an established technology free of any sample recording complexities. In this process, the subject is asked to look into the camera in a head still position while the scanning process is completed.

#### Advantages

- i. It remains unchanged throughout the life span
- ii. It is not easy to change or replicate the retinal vasculature.

#### Disadvantages

- i. This technique is highly intrusive, expensive and demands full cooperation of the subject
- ii. Retinal scanning may cause some discomfort to the subject
- iii. Too much movement of head or eye may give false results.

#### **4.6 Iris**

An iris is the circular coloured portion of the eye, having pupil at the centre and surrounded by a white portion called sclera. With the development of the fetus, the texture or pattern of an individual iris starts developing and gets stable till the second year

of life. It is a complex pattern and extremely valuable source of biometric information comprising of many distinguishing features including ridges, furrows, arching ligaments, corona, rings and crypts<sup>22</sup>. The scanner passes invisible Infra-red light through the iris, which thus, represents all the minute details which are not visible through naked eyes<sup>23</sup>.

#### Advantages

- i. This feature is stable and does not change throughout the life
- ii. The iris pattern is unique even in case of identical twins
- iii. It is cost effective, tamper resistant and highly accurate technology
- iv. Sample collection is less painful in which the subject simply looks or stare at the camera from a distance of 5 to 10 inches.

#### Disadvantage

- i. The weakness of the system lies in its intrusiveness and false results due to interference by contact lenses, sunglasses or illuminating conditions.

### ***4.7 Palmprints***

Like fingerprints, palm of the human hand also contains a unique pattern of ridges and valleys. Palmprints are the textured images which are unique to every individual<sup>24</sup>. We can obtain a highly efficient biometric system by using a high-resolution palm-print scanner that would collect all the features of the palm such as ridge and valley patterns, principal lines, creases and wrinkles.

#### Advantages

- Palmprints of a person does not change
- Palmprints are expected to be more reliable than fingerprint as they are of greater size than fingerprints

#### Disadvantage

- Palmprints scanner are more expensive

#### ***4.8 Deoxyribonucleic Acid (DNA)***

It is ultimate unique code for one's individuality. The DNA technology is highly accurate and used mostly in the context of forensic applications for person recognition and for solving paternity disputes. DNA remains unchanged throughout the lifetime and even after death. Thus, DNA provides the most reliable form of identification<sup>25</sup>.

##### Advantages<sup>26</sup>

- It is unique to every individual
- It can be easily obtained from variety of sources
- It is readily used in forensics to link a crime scene evidence to an individual
- It remains stable and do not change throughout the lifetime and even after death
- It does not require any feature extraction or templates, but rather represent the actual comparison of the samples

##### Disadvantages

- It is very sensitive and prone to contamination
- This technology fails in the case of identical twins
- The technology is also very intrusive and time taking as it relies on cumbersome chemical methods.

In extreme cases, mutation may alter the base sequences and may interfere with the analysis.

#### ***4.9 Ear***

Shape of the ear and the structure of the cartilaginous tissue of the pinna are distinctive and vary from person to person. The ear of a subject is scanned using a laser scanner and the recognition is done by matching the shape and distance of salient points on the pinna from a landmark location of the ear.

### Advantage

- i. This feature is unique to an individual

### Disadvantages

- i. It is an expensive technique
- ii. Scanning becomes difficult if a person is wearing a hearing aid or ear-muffs.

#### **4.10 Body odour**

Each individual spreads around an odour that is characteristic to him which could be used for distinguishing him from others. The human odour is released from various parts of body and exists in various forms such as exhalation, armpits, urine, stools, farts or feet. For the recognition purpose, an array of chemical sensors is prepared which are sensitive to a certain group of compounds like electronic nose (E-nose) furnished with software to sense and identify the body odour of an individual. The volatile organic compounds are detected or sensed using a wide range of metal oxide sensors<sup>27</sup>.

### Advantages

- It is a user friendly technique
- Samples can be easily collected without causing any discomfort to the subject

### Disadvantages

- Development of body odour largely depends upon the environmental conditions
- The use of perfumes may hinder the recognition

#### **4.11 Dentition pattern**

Dental biometrics is the most effective system for personal identification. Just like other biometrics the position of teeth are unique to each person. This biometric feature uses X-ray comparison for identification purposes.

### Advantages

- i. Teeth are an accurate and competent way of identifying a person
- ii. Teeth survive most post-mortem events and growth changes

### Disadvantages

- i. Dental characteristics like teeth loss, colour change or any alteration done by dentist can affect the accuracy of this biometric system

### **4.12 Heart sound**

A reliable authentication and identification system is gaining more importance nowadays for commercial as well as security purposes. The human heart sound is another fresh and forthcoming candidate to become a high performance biometric system which will give conclusive results<sup>28</sup>. Since the heart sounds renders the information about an individual's physiology, such signals have the potential to provide a unique identity for each person<sup>29</sup>.

### Advantages

- This is a widely acceptable recognition system
- The heart sound can be easily examined by simply using a stethoscope
- The system is significantly robust against any fraudulent act like simulation or disguise

### Disadvantage

- A person's heart beat vary with his or her physical, emotional and psychological state

### 4.13 Voice recognition

Speech gives the identity of a speaker. It is defined as a multidimensional acoustic wave which addresses the information about the sex of the individual, the language spoken, speech pathology, physical & emotional state of the speaker, his

background, religion and educational level<sup>30</sup>. The features of human voice are based on physical characteristics like dimension of vocal tract, nasal cavity, mouth, lips, tongue, vibrating vocal folds etc. The possibility that two individual have the same vocal tract dimension with similar manner of articulation is quite small<sup>31</sup>. Thus, each person bears a unique voice which is individual to him.

A person's mental ability to control his vocal tract muscles during utterance is learned during his childhood. These habits affect the range of sound that may be effectively produced by an individual. The range of sounds is the subset of the set of possible sounds that an individual could create with his or her personal vocal tract<sup>32</sup>.

The voice recognition technique generally comprises of two aspects: automated speaker verification and automated speaker identification. Speaker verification accepts or rejects the claimed identity of the speaker, while speaker identification performs the task of identifying an unknown speaker of given utterance from a large group of speakers<sup>33</sup>. Voice recognition biometrics compares the specific vocal traits of an individual against stored templates in a database. Feature extraction typically measures formants or other vocal characteristics unique to each person's vocal tract<sup>34</sup>.

#### Advantages

- i. This feature is well accepted by the users
- ii. Voice of a person can be easily recorded using microphones and hardware of low costs<sup>35</sup>.
- iii. It can provide a more secure means of accessing a secured area without any need of remembering a password, lock combination etc

#### Disadvantages

- i. This system is highly sensitive to background noise, changes in physical and emotional state of the speaker, Channel mismatch or mismatch in recording conditions and any type of vocal disguise<sup>36</sup>.



- ii. The results largely depend on the efficiency of sensors.
- iii. Vocal cord related disorders may change the person's speech.

#### ***4.14 Signature***

Signature is a simple and common representation of the peculiar variations in human hand geometry and neuromuscular coordination during its production. The way in which a person puts signature is individual to him or her. The sample collection requires a writing instrument as well as the person's cooperation. The identification of a person's signature is based on the analysis of the shape & size of the signature, all possible movements, its rhythm, fluency, change in velocity and pressure of the writing instrument across the writing surface or the sensor.

##### Advantages

- It is a low cost, non-intrusive method with wide acceptance
- Sample collection is easy and requires less time

##### Disadvantages

- Signature of a person varies with variation in speed adopted to accomplish it
- It also differs with time and different body postures.
- It may change with age, physical disorder and physical & emotional state of a subject.

#### ***4.15 Keystroke dynamics***

It is generally believed that the manner in which a person types on a keyboard is characteristic to him or her. This behavioural biometrics measures specific features which are considered unique to an individual and also difficult to imitate. This analyzes the way in which a user types by monitoring the keyboards number of times in an attempt to identify the subjects on the basis of their habitual style and speed of typing. A biometric template

of the user is generated by calculating the user specific typing rhythm for any authentication in future<sup>37, 38</sup>. These measurements are generally derived from the raw data of key pressing time, key release time and the type of keys pressed.

These keystroke verification techniques can be classified as static and continuous. The static verification analyzes the characteristics only at specific times like login sequence. While, continuous verification monitors the user's typing behaviour throughout the course of the interaction.

#### Advantages

- This is a robust authentication technique.
- It is cost effective and requires only a monitor and a keyboard for the identification purpose.

#### Disadvantages

- One may expect to observe large variations in typing patterns
- This system is not effective in detecting any substitution to the user after the initial verification

### ***4.16 Gait pattern***

Gait pattern of an individual presents their peculiar style of walking on their feet. This type of biometric feature identifies a person by the way the walk, run, or any other type of motion of the legs. This can be used to identify everything from the length and thickness of individual's legs to the stride of their step<sup>39, 40</sup>. Human gait is a pattern of locomotion and can be described in terms of kinetics and kinematics properties. These kinematic properties involve joint angles between body segments and their relationship with the gait cycle of an individual<sup>41</sup>.

#### Advantages

- This is a non-intrusive technique
- It is an individual characteristic of each person

Disadvantages

- This is a low security biometric feature
- It is very expensive technique
- Variations are bound to occur due to change in weight, age or injury

A brief comparison of some well known biometric features that are mentioned above is given in (Table 2).

**Table 2**  
 Comparison chart showing the accuracy and applicability of a variety of biometric features on the basis of six factors.  
 The results are presented in terms of: ↑ meaning high, ↔ meaning medium and ↓ meaning low

Biometric feature	Signature	Face	Hand	Vein	Palm	Foot
DNA	↑	↑	↑	↓	↑	↓
Fingerprints	↔	↑	↑	↔	↑	↔
Facial geometry	↑	↔	↓	↑	↑	↑
Hand geometry	↔	↔	↔	↑	↔	↔
Thermogram	↑	↓	↑	↑	↔	↑
Retina	↑	↔	↑	↓	↑	↓
Iris	↑	↑	↑	↔	↑	↓
Palmprints	↔	↑	↑	↔	↑	↔
Dentition pattern	↔	↓	↓	↔	↔	↔
Odour	↑	↑	↑	↓	↓	↔
Ear	↔	↑	↔	↔	↔	↑
Heart sound	↔	↓	↔	↑	↓	↑
Voice	↔	↓	↓	↔	↓	↑
Signature	↓	↓	↓	↑	↓	↑
Keystrokes	↓	↓	↓	↔	↓	↔
Gait pattern	↔	↓	↓	↑	↓	↑

5. Applications of biometric systems

- Commercial applications such as computer system logon, physical access control, access control for user developed applications and time and attendance.
- Government applications involving national identity cards, travel documents, passports, driving card licenses, voter identification, arms licenses, immigration services and foreigner identification, insurance companies, visitor identification at control zones, investor’s identification at stock exchanges, border control, pensioner identification, land or vehicle registrations, etc.

- c. Biometrics technology also serves forensic purposes by helping in suspect identification, criminal identification and corpse identification<sup>42</sup>.

## 6. Restrictions to unimodal biometric systems

A biometric system renders a legitimate and infallible method for establishing an individual's identity. Most of the biometric systems deployed for such purpose are unimodal i.e. they depend upon the information provided by the single biometric feature. But these unimodal systems face certain limitations which proves that biometrics is not fully solved problem. Limitations of systems using single biometric characteristics are:-

- Noisy data obtained due to some dirt on the scanner or some ambient conditions. E.g. Fingerprint with a scar or low quality voice sample with large background noise.
- Intra-class variations occurring in the data collected from the subject at the time of authentication with that collected at the time of enrolment. These variations generally arise due to the incorrect interaction of the user with the sensor.
- Inter-class similarities due to the overlapping of the data, in case of biometric systems comprising of large number of users.
- Non-universality of a biometric system because of its inability to acquire significant data.
- Attempt of any individual to forge the biometric trait, especially in case of a signature or voice<sup>43</sup>.

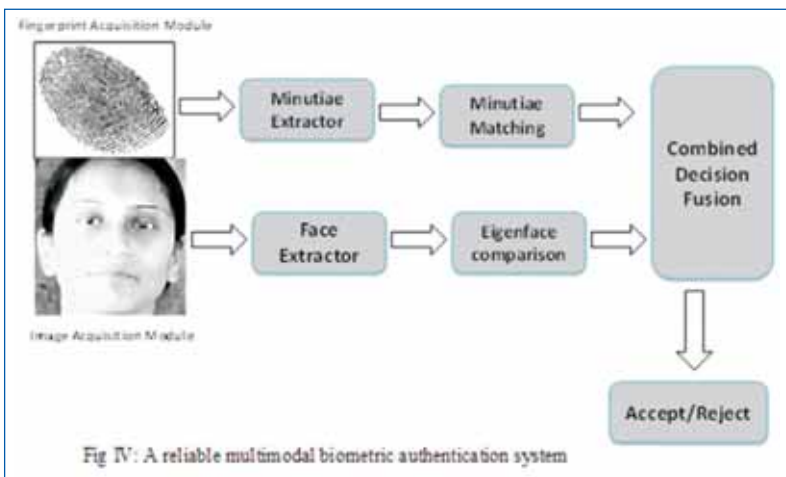
## 7. Multimodal biometric systems

Limitations of unimodal biometric systems can be overpowered by using multimodal biometric. Multimodal biometric systems employ more than one physiological or behavioural feature for the purpose of personal recognition. Such biometric techniques are designed for reducing false Acceptance and False Rejection values, providing a secondary means of identification if sufficient data is

not acquired from a given biometric sample and withstanding any attempt made to fool biometric systems through any false data. These algorithms recover top matches from one biometric trait and then verify the result using other biometric traits<sup>44</sup>.

### 7.1 Working of a multimodal biometric system

Multimodal biometric incorporates the information furnished by multiple traits (Figure IV).



At the feature extraction level, a feature vector is calculated from the data given by each sensor. The data obtained from each trait is clubbed together to yield a vector with higher score. This new vector is then used in the matching and decision-making modules of the biometric system. At the matching score level, a matching score is provided by each system which are combined to confirm the authenticity of the user's claimed identity. At the decision level, each individual system provides multiple biometric data and the resulting vectors are individually classified as accepted or rejected. Finally, the results obtained from each system are united to achieve final decision<sup>45</sup>.

## 8. Performance errors in biometric system

The success of any biometrics technology depends on how the system performs in the real world conditions. Real world conditions may be very different from the testing or experimental conditions. It is the data quality which impacts the performance. Until recently, attempts to enhance performance were focussed on image processing algorithms, but algorithms can't make up for poor or missing data. Current focus is on improving the data quality which will enable the technique to reduce the frequency of error commission. Errors<sup>46</sup> may be caused due to–

- i. imaging conditions (example- sensor noise and dry fingers)
- ii. changes in the user's physiological or behavioural characteristics (example- cuts and bruises in the finger)
- iii. ambient conditions (example- rain, hot, cold, humidity)
- iv. user's interaction with the sensor (example- finger placement)

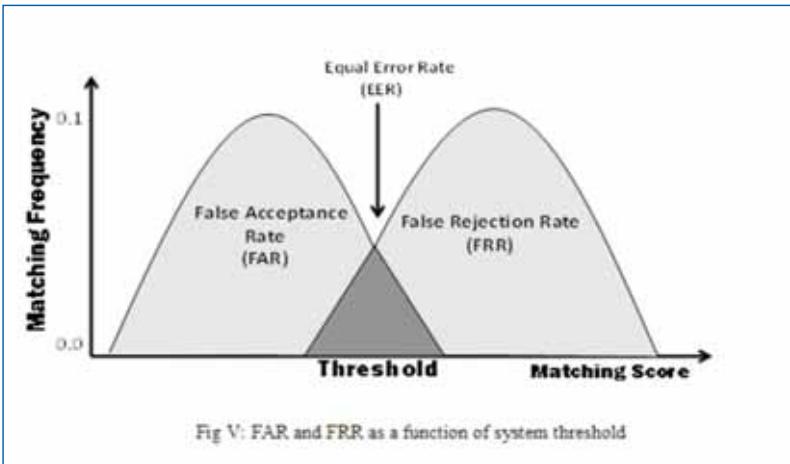
A biometric system makes 4 types of errors:

- a. False accept rate (FAR): FAR is the measurement of the likelihood that the system wrongly accept an access attempt and the system incorrectly identifies an individual as another. It is the percentage of impostor insertions wrongly accepted as genuine users. Far is generally less frequent in a biometric system
- b. False Rejection Rate (FRR): FRR is one of the most important specifications in any biometric system. It is defined as the percentage of identification instances in which false rejection occurs or the percentage of genuine user insertions wrongly rejected as impostors. This is a more frequent error observed in a biometric system. For example, in case of a fingerprint scanner, FRR sometimes occur when the core of the fingerprint is misplaced or the finger is not properly placed on the detection surface.
- c. Failure to enrol (FTE): FTE is the percentage of users who are unable to successfully enrol in a system.

- d. Failure to acquire (FTA): FTA is the percentage of instances where the system was unable to capture an image.

There is a trade-off between FAR and FRR in every biometric system. Both are functions of system threshold (Figure V). Threshold may be here defined as “the optimum score or value that qualifies for the similarity between input and database template representation”.

- If score is high → match pairs
- If score is low → Wingding non-match pairs.



## Conclusion

In the context of the above facts, it can be concluded that biometrics technologies are user-friendly techniques and provide an additional tier of security at a considerably low cost. At present, the amount of applications employing biometric systems is quite limited, but this technology with its promising features is bound to catch attention of majority owing to its inherent advantages over the pre-existing ones. However, the future probably belongs to multimodal biometric systems as they have the potential to overcome the minority of the problems usually encountered in unimodal biometric systems. The technologies have enormous

applications in forensic scenario and are effective and are emerging tools of preventive forensics.

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# Qualitative Study to Assess Adulteration of Ghee Collected from Local Dairy of Ahmedabad by Color Tests

Krunal Jariwala\* and Astha Pandey\*\*

## Keywords

*Adulteration, Ghee, Rancidity, Vegetable fat.*

## Abstract

*Ghee is one of the most important milk products consumed in India on very large scale. The supply of ghee is short for its high demand in market. The gap between availability and price leads to several malpractices. Adulteration in ghee is more common malpractice in India because it will fetch more profit to traders and also increase in supply. Sometimes the old ghee or rancid ghee is also mixed with fresh ghee in a small amount to avoid monetary loss. The old ghee is highly rancid in nature and gives rancid smell. The mixture of old ghee and fresh ghee overall reduces the quality of ghee. In this work different methods were applied for detection of adulteration of ghee sample through color test.*

## Introduction

**G**hee (from Sanskrit ghrta meaning “sprinkled”) is a clarified butter that originates in South-Asian countries like India, Pakistan, and Nepal etc<sup>1</sup>. It is commonly used in cuisine and rituals. It is consumed in India on a large scale. It is prepared from butter by clarification. Due to its high demand and limited supply, ghee is adulterated on a large scale in India. The

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ghee is adulterated to increase the margin of profits. Across India, animals are being rendered and their fat is being added to ghee. Hundreds of tins of ghee are being manufactured from animal fat boiled in huge iron pans. In some places manufacturing of ghee is being carried out clandestinely with animal hides of cows, monkeys, donkeys and horses. Unfortunately most labs in India do not have the equipment to test ghee. The second reason is that milk products like ghee only have a 5% profit margin so the only way to be profitable is to use animal fat. The detection of animal body fat in ghee is difficult as the mixture has more or less the same physical and chemical characteristics as pure ghee. According to the Handbook of Food Quality and Authenticity by Rekha Singhal, Pushpa Kulkarni and Dinanath Rege, many methods have been tried. However, adulteration of ghee sample could be made by minute observation. Any ghee would be uniformly homogenous and not half semi-solid and the other bottom half fully caked hard. Thus, adulteration of ghee falls in two major categories: a) Adulteration by vegetable fats/oils; b) Adulteration by animal fats.

However, different substances are also employed as adulterants such as dyes, synthetic color matters, Potatoes, Sesame oil etc. Ghee is also adulterated by lard due to its similar appearance. There are several papers discussing the physical properties of ghee but hardly any deals with color tests for detecting the adulteration in ghee. Therefore, an effort has been taken to study the adulterants in ghee by various color tests, as they are the easiest to perform at any lab or home to detect common adulterants in ghee.

The paper deals with the analysis of ghee sample by the chemical test and color test for the detection of sesame oil, vegetable fat, potato, synthetic colors and dyes in ghee. There are many published papers discussing the adulteration of food in general, but there is hardly any literature which deals with the different tests for detecting adulteration in ghee. Thus, an effort has been made to detect the different types of adulterant in ghee samples collected from different dairy shops of Ahmedabad.

## Experimental

### Materials

Fifteen (15) Ghee samples were collected from the local dairy of Ahmedabad and were preserved at room temperature till the analysis. The chemicals used were as follows: Distilled Furfural solution, Iodine, Potassium iodide, Sodium hydroxide, Diethyl ether, Phloroglucinol, Acetic acid, Concentrated Sulphuric acid, Concentrated Nitric acid, Iodine Solution, Sodium Carbonate, colorless concentrated nitric acid. All the chemicals were of Merck Company and all the glasswares of borosil .Water bath, Test Tubes, Glass rod, Filter paper, funnel and stopper were also used for performing the experiments.

### Reagents Required and Preparation

- Dissolve 0.05 gm of Phloroglucinol in 50 ml of diethyl ether. (Oxidative Rancidity)
- Dissolve 10g of NaOH pellets in 100 ml distilled water. (Synthetic Color)
- Dissolve 25 g of sodium carbonate in 100 ml distilled water. (Soda-Ash Test)

## PROCEDURE

### Test for Oxidative Rancidity<sup>3,8</sup>

Rancidity is caused due to oxidation of ghee and formation of peroxide in ghee sample.

### Method

Take one spoon of melted ghee in a stopper glass tube. Add 5ml concentrated hydrochloric acid. Shake stopper glass tube vigorously for 30 seconds. Restopper the glass tube and add 5 ml phloroglucinol solution. Stopper the tube and shake vigorously for 30 seconds. Allow to stand for 10 minutes.

**Indication:** Pink or red color in acid layer indicates rancidity.

## Test for presence of Starch<sup>3, 8</sup>

### Method

Take 5 ml of ghee sample in a test tube. Add 1-2 drops of freshly prepared iodine solution and allow to stand.

### Indications

Blue color indicates presence of starch (potato) in ghee, which disappears on boiling and reappears on cooling.

## Test for presence of Sesamolin in Ghee<sup>3,8</sup>

Sesamolin is active principle of sesame oil.

### Method

Take 5 ml of melted ghee sample in stopper glass and add 5ml of concentrated hydrochloric acid and 0.4ml distilled furfural solution [not prepared before 24 hrs of test. Shake the mixture vigorously and allow to stand for 30 seconds.

### Indications

Formation of pink color indicates Sesamolin in ghee. Confirm it by adding 5 ml of distilled water. If color disappears, Sesamolin is absent otherwise present.

## Test for presence of dye in ghee<sup>3,8</sup>

**Method:** Take 5ml of melted ghee sample and add 1 ml concentrated sulphuric acid and 4 ml of acetic acid. Heat the mixture on water bath for few seconds. Indications: Appearance of red or pink color indicates dye in ghee.

## Test for Synthetic Color matter <sup>3,8</sup>

### Method

Take 5 ml of melted ghee sample in test tube and add diethyl ether. Shake well. Filter the solution and divide the filtrate in two parts. To a first part add concentrated hydrochloric acid and shake well. To a second filtrate add 10% NaOH solution. Shake well and allow to stand.

Table 1: Indications of adulterant substance present

Color	Substance Present
1. No Color	Pure Ghee
2. Yellow	Vegetable Fat
3. Orange	Presence of lard
4. Reddish Yellow	Presence of Wax
5. Red color in acid Layer	Argemone Oil

## Indications

Pink color in acidic medium and yellow color in basic medium indicates presence of synthetic color matter in ghee.

### Nitric Acid Test' 8

**Method:** Take 3 ml of ghee sample in a test tube and add 3 drops of colorless concentrated nitric acid and is kept in water bath.

Table 2: Results of Colour Tests of Ghee Samples from Different Location of Ahmedabad

Sample No.	Kriess-Kar Test	Starch Test	Baudouin's Test	Test for Dye	Test for Synthetic Colour	Nitric Acid Test	Soda-Ash Test	Test for Argemone Oil
1	+	-	-	+	-	-	-	-
2	-	-	-	-	-	-	-	-
3	-	-	-	+	-	-	-	-
4	-	-	-	-	-	-	-	-
5	+	-	+	-	-	+	+	-
6	+	-	-	-	-	-	-	-
7	+	-	-	-	-	-	-	-
8	+	-	-	+	-	-	-	-
9	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-
11	+	-	-	-	-	-	-	-
12	+	-	-	-	-	-	-	-
13	-	-	-	+	-	-	-	-
14	-	-	-	+	-	-	-	-
15	-	-	-	+	-	-	-	-



## Soda Ash Test<sup>3,8</sup>

### Method

5 ml of melted ghee sample is taken in a test tube and equal amount of 25% sodium carbonate solution is added. Shake mixture vigorously and is kept for few minutes.

### Indications

Turbid liquid is formed when it is kept for few more minutes; two layers are formed on standing. It indicates presence of vegetable fat in lower layer.

### Results and Discussion

Color test includes the reaction of substrate with the chemical reagents. The positive reaction is observed when there is change in a color of the solution when the reagent is added. The change in color is due to the reaction of functional group of a substrate with the chemical reagent added or it is due to formation of complex compound in the mixture. Each functional group will give definite color with the definite chemical reagents added to it. The test may result in positive or negative results. Color tests are sometimes used as both presumptive test or as confirmatory test. From the table it can be interpreted that Sample - 1, 5, 6, 7, 8, 11 and 12 responds positively to rancid test. Hence, rancidity in ghee might be present. None of sample is found to be adulterated with starch. Sample-5 responds positively to Bodouin's Test. Hence, Sesamolol might be present in a sample. Sample-1, 3, 8, 13, 14 and 15 shows presence of dye in ghee. No sample found to contain synthetic color matter. Sample-5 shows yellow color when concentrated nitric acid was added. Hence, it might contain vegetable fat. However, no sample was found to contain Argemone oil as adulterant.

### Conclusion

In the color tests performed above, it can be concluded that color tests are just screening methods or preliminary tests to detect

adulterants in the given sample but confirmation can only be done after performing other confirmatory tests or by instrumental analysis of ghee samples. Thus, specifically it is very difficult to state the type of adulterant in ghee confirmatively just by color tests.

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The journal covers articles of general police interest as well as research papers based on empirical data pertaining to police work. Authentic stories of criminal case successfully worked out with the help of scientific aids and techniques are also published. Only original manuscripts are accepted for publication. Articles submitted to the journal should be original contributions and should not be under consideration for any other publication at the same time. A certificate to this effect should invariably accompany the article.

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