

Development of Forensic Science and Criminal Prosecution-India.

Nivedita Grover, Isha Tyagi

Symbiosis Law School, Noida, Symbiosis International University, Pune, India.

Abstract- The concept of forensic science is not a new one in India, though its application was not known by our Indian the use of fingerprint which was also known as "Trija" by the illiterates was induced centuries ago as it was known at that time as well that the same are inimitable. Ancestors in the present scientific form but its detailed reference can be seen from our literature written 2300 years ago like the *Kautilya's Arthashastra*.

This being said this Article talks about not only the development of the Forensic Science in India but also talks in detail about the changes which have been brought about which have been explained with the help of case laws.

The perfect equality of logic and reasoning given in this article will help in giving the impression that everyone with basic knowledge of the statutory interpretation can transverse without any trepidation.

Index Terms- Development, Forensic Science, India, Legal Aspect, Prosecution.

I. INTRODUCTION

History: The ancient world lacked standardized forensic practices, which aided criminals in escaping punishment. Criminal investigations and trials relied on forced confessions and witness testimony. However ancient sources contain several accounts of techniques that foreshadow the concepts of forensic science that is developed centuries later, such as the "Eureka" legend told of Archimedes (287–212 BC).¹

In ancient India too, medical opinion was frequently applied to the requirements of the law. By law the minimum age for the marriage of girls was fixed at 12 years; the duration of pregnancy was recognized as being between 9 and 12 lunar months with an average of 10 months and there is evidence that doctors had to opine on such cases.

Sir [William Herschel](#) was one of the first to advocate the use of fingerprinting in the identification of criminal suspects. While working for the Indian Civil Service, he began to use thumbprints on documents as a security measure to prevent the then-rampant repudiation of signatures in 1858. In 1877 at Hooghly (near Calcutta) he instituted the use of fingerprints on contracts and deeds and he registered government pensioners' fingerprints to prevent the collection of money by relatives after

a pensioner's death. Herschel also fingerprinted prisoners upon sentencing to prevent various frauds that were attempted in order to avoid serving a prison sentence.²

In 1897 a Fingerprint Bureau was established in Calcutta (Kolkata), India, after the Council of the Governor General approved a committee report stating that fingerprints should be used for the classification of criminal records. Working in the Calcutta Anthropometric Bureau, before it became the Fingerprint Bureau, were Azizul Haque and Hem Chandra Bose. Haque and Bose were Indian fingerprint experts who have been credited with the primary development of a fingerprint classification system eventually named after their supervisor, Sir Edward Richard Henry. The Henry Classification System, co-devised by Haque and Bose, was accepted in England and Wales when the first United Kingdom Fingerprint Bureau was founded in Scotland Yard, the Metropolitan Police headquarters, London, in 1901. Sir Edward Richard Henry subsequently achieved improvements in dactyloscopy.³

In 1968, the Ministry of Home Affairs, Government of India, set up a Forensic Science Laboratory for Delhi Police and the Central Bureau of Investigation under the administrative control of the Central Bureau of Investigation. This laboratory now provides expert opinion on various aspects of Forensic Science concerning crime investigation. Apart from Delhi Police and the CBI, it also provides assistance to the Central Government Departments, State Forensic Science Laboratories, Defense Forces, Government Undertakings, Universities, and Banks etc. in criminal cases. The laboratory has a search and development set up to tackle special problems. The expertise available at the CFSL is also utilized in teaching and training activities conducted by the CBI, Lok Nayak Jai Prakash Narayan, National Institute of Criminology & Forensic Sciences, Police Training Institutions, Universities and Government Departments conducting Law Enforcement Courses etc.

In the 19th century, it was discovered that almost any contact between a finger and a fixed surface left a latent mark that could be made visible by a variety of procedures (e.g., the use of a fine powder). In 1894 in England the Troup Committee, a group established by the Home Secretary to determine the best means of personal identification, accepted that no two individuals had the same fingerprints—a proposition that has never been seriously refuted. In 1900 another committee recommended the use of fingerprints for criminal identification. Fingerprint evidence was first accepted in an Argentine court in

¹ Schafer, Elizabeth D. (2008). "Ancient science and Forensics". In Ayn Embardson, Allan D. Pass (eds.) *Forensic Science*. Salem Press p.40. ISBN 978-1-58765-423-7
http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Forensic_science.html

² Herschel, William James (November 25, 1880). *Skin Furrows of the hand*. *Nature* 23(578):76

³ Sodhi J.S.; Kaur, asjeed (2005). "The Forgotten Indian Pioneers Of Fingerprint Science". *Current Science* 88 (1): 185-191.

the 1890s and in an English court in 1902. Many other countries soon adopted systems of fingerprint identification as well.⁴

Forensic Science, an amalgamation of almost all faculties of knowledge is an essential and efficient enabler in the dispensation of justice in criminal, civil, regulatory and social contexts. Historically our forefathers in India have practiced forensic application in variety of forms. Present day Indian forensics, as chronicled, owes its genesis to several British initiated ventures such as Chemical Examiner's Laboratory (Madras, 1849), Anthropometric Bureau (1892), Finger Print Bureau (1897), Inspectorate of Explosives (1898), Office of Government Handwriting Expert (1904), Serology Department (1910), Foot Print Section (1915), Note Forgery Section (1917), Ballistics Laboratory (1930) and Scientific Section (1936). Having subsequently undergone clubbing / regrouping / spreading, as of now, there are 28 State / Union Territory Forensic Science Laboratories (State / UT FSLs) along with their Regional FSLs (32 RFSLs) and Mobile FSLs (144 MFSLs); they are mostly with the respective Home Department either directly or through police establishment⁵

II. PRESENT DAY

The term crime has been given numerous definition by many prominent jurists like :

Sir William Blackstone defines crime in his 'Commentaries on Law of England' as An act committed in violation of public law forbidding or commanding it. Similarly, Sir James Stephen defines crime as An act forbidding by the law and revolting to the moral sentiments of the society. Whereas, Kenny states that Crime are wrongs whose sanction is punitive and in no way remissible by an private person, but is remissible by the Crown alone, if remissible at all.

Just like for the identification of any sort of organism it is necessary that one looks into its DNA and to identify individuals, forensic scientists scan DNA regions, or loci, that vary from person to person and use the data to create a DNA profile of that individual (sometimes called a DNA fingerprint). There is an extremely small chance that another person has the same DNA profile for a particular set of 13 regions.⁶

Among the many new tools that science has provided for the analysis of forensic evidence is the powerful and controversial analysis of deoxyribonucleic acid, or DNA, the material that makes up the genetic code of most organisms. DNA analysis, also called DNA typing or DNA profiling, examines DNA found in physical evidence such as blood, hair, and semen, and determines whether it can be matched to DNA taken from specific individuals. DNA analysis has become a common form of evidence in criminal trials. It is also used in civil litigation,

⁴ <http://www.britannica.com/EBchecked/topic/142953/crime/53437/The-role-of-forensic-science>

⁵Dr. Gopal Ji. Misra & Dr. C. Damodaran, "*Perspective Plan For Indian Forensics*", Final Report presented to the Ministry of Home Affairs Government of India, New Delhi.

⁶ Ankur Mishra, *recent trends used in Medical Forensic Science and Indian Law*, <http://www.lawyersclubindia.com/articles/RECENT-TRENDS-USED-IN-MEDICAL-FORENSIC-SCIENCE-INDIAN-LAW-2701.asp#.VGjEA8mUQ05>, visited on 11/11/2014.

particularly in cases involving the determination of Paternity of Identity.⁷

Forensic science in today's world is an advanced scientific technique which is used in criminal and civil investigations, it is capable of answering important questions and forms an integrated part of criminal justice system. Both State and Central Government have developed Labs for the same which intern assist courts, police system and private agents and individuals during investigation or cross examination procedure.

During the investigation forensic evidence is collected by the expert at the scene of the crime and each evidence is so collected is so unique in its own way that it becomes necessary to test it and to analyses it separately in order to reach to the conclusion . sometimes, complex cases involve multiple experts specializing in the same field to examine and to give the analysis with respect to the evidence so collected.

Today more than 30 million cases are still pending either the courts in India and agencies like the International Forensic Sciences (IFS) and Central Forensic Science Laboratory (CBI) are used as an alternative solution.

III. SUB-DIVISIONS

- a) **Forensic accounting** is the study and interpretation of accounting evidence
- b) **-Forensic aerial photography** is the study and interpretation of aerial photographic evidence
- c) **Computational forensics** concerns the development of algorithms and software to assist forensic examination.
- d) **Criminalistics** is the application of various sciences to answer questions relating to examination and comparison of biological evidence, trace evidence, impression evidence (such as fingerprints, footwear impressions, and tire tracks), controlled substances, ballistics, firearm and tool mark examination, and other evidence in criminal investigations. In typical circumstances evidence is processed in a Crime lab.
- e) **Forensic dactyloscopy** is the study of fingerprints.
- f) **Digital forensics** is the application of proven scientific methods and techniques in order to recover data from electronic / digital media. Digital Forensic specialists work in the field as well as in the lab.
- g) **Forensic document examination** or questioned document examination answers questions about a disputed document using a variety of scientific processes and methods. Many examinations involve a comparison of the questioned document, or components of the document, with a set of known standards. The most common type of examination involves handwriting, whereby the examiner tries to address concerns about potential authorship.⁸

⁷ Dr. Nirpat Patel The Role in Criminal investigation- Admissibility in Indian Legal System and future perspective, International Journal of Humanities and Social Sciences, www.ijhssi.org.

⁸ Matthewr. Burne Vernalpoole, Massachusetts Aerial Photo Survey of Potential Vernal Pools, 2001
www.mass.gov/eea/docs/dfg/nhosp/vernal.../ma-aerial-survey-pvp.pdf

IV. RESEARCH QUESTION

The object of this paper is to understand the origin of Forensic Science and its introduction along with development in India.

This paper will explain how this science has become an integral part of our justice system along with the impact it has created on the perception of experts.

V. ANALYSIS

Forensic science is defined as the application of science in answering questions that are of legal interest. More specifically, forensic scientists employ techniques and tools to interpret crime scene evidence, and use that information in investigations. Forensic scientists and technicians come from a variety of academic backgrounds, although most have completed coursework in the life sciences, chemistry and law enforcement.⁹ The creation of National Accreditation Board For Testing and Calibration Laboratories (NABL) has been for the purpose of four objectives which define the purpose and nature of the program.

1. To improve the quality of laboratory services provided to criminal justice system.
2. To develop and maintain criteria which can be used by a laboratory to assess its level of
3. performance and to strengthen its operations.
4. To provide an independent, impartial and objective system by which laboratories can be
5. benefited through a total operational review.
6. To offer to the general public and users of the laboratory services a means of identifying
7. those laboratories which have demonstrated that they meet established standards.¹⁰

The forensic science laboratories, or the organization, like the International Forensic Sciences (Ifs), Indian Forensic Science Improvement Board and Central Forensic Science Laboratory (CBI) etc. are legally identifiable. The forensic science laboratories are organized and operated in such a way that it meets the accreditation requirements, while performing work in its permanent, temporary or mobile facilities (including field operations and regional laboratories). The laboratory clearly defines and documents the type and extent of the forensic science services it provides. Management ensures that:

- a) The laboratory does not engage in any activities that might diminish trust in its competence, impartiality, judgment or operational integrity, and
- b) The laboratory personnel are free from commercial, financial or any other pressure that might adversely affect the quality of their work.¹¹

⁹ Sir Krishna, *Forensic Science*, Symbiosis Law School, Pune, India, <http://www.legalservicesindia.com/article/article/forensic-science-601-1.html>, visited on 14/11/2014.

¹⁰ NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES, specific guidelines for accreditation of forensic science laboratories and checklist for assessors.

¹¹ www.ifs.edu.in/IFS.EDU.BROCHURE.pdf

Forensic Science and other Statutes:

In India, law regarding evidence is uniform in both Civil and criminal cases, the degree of proof required may be somewhat different in civil and criminal cases but mode of giving evidence is govern by same legislation. In India, we have adversarial system of justice administration and ordinarily medical evidence is admitted only when the expert gives an oral evidence under oath in the courts of law except under special circumstances like:

1. When evidence has already been admitted in a lower court;
2. Expert opinions expressed in a treatise
3. Evidence given in a previous judicial proceeding;
4. Expert cannot be called as witness;¹²

In, India, Hospital records like admission/discharge register, birth/ death certificates etc., it is a common perception that lot of time and effort is required to record evidence and therefore by enlarge members of the medical profession does not like to involve in medico legal cases. Some of the possible reasons put forward for this perception are:

1. Undue time consumption;
2. Repeated adjournments;

Criminal Procedure Code and Indian Evidence Act 1872 are the parent procedural laws which govern criminal trials in India, while Criminal procedure Code prescribes the procedure from the point of taking cognizance of crime by appropriate judicial Magistrates till the delivery of final order of Conviction or acquittal or any appropriate order looking into the fact of the case. Indian Evidence Act is limited in its scope of leading evidences in civil or criminal cases either by the prosecution or defendant, applicant or respondent. Act also deals with kind of evidences and relevancy of any fact which can be brought as evidence in any case.¹³

Sec. 313 of the Criminal Procedure Code (Cr.P.C.) must also be amended so as to draw adverse inference against the accused if he fails to answer any relevant material against him therefore, making it easy for the law enforcers to use DNA tests against him.¹⁴

The field reality is that while the same Code of Criminal Procedure, (Indian) Evidence Act and (Indian) Penal Code apply to all the citizens of India, forensic services accorded to the different population segments by the various delivery units of the Union, State and UT welfare governments, however, differ owing to gradients of professional (training) development, procedures & processes, external exposure, equipment etc. resources, enabling logistics and service conditions. The scene also represents inter-regional variations with respect to the population size, and the volume and nature of crimes.

So far as criminal jurisprudence in India is concerned doctrine of onus probandi is in the field and therefore "One shall be presume innocent till his crime is proved" not only proved but proved beyond reasonable doubt, this principle of Onus probendi

¹²Arindam Datta, "*Forensic Evidence: The Legal Scenario*", Dept. of Law, University of Calcutta, <http://www.legalserviceindia.com/article/1153-Forensic-Evidence.html>

¹³Adarsh M. Dhabarde, *Forensic Evidences in Criminal Trial: Need of the Hour*,

¹⁴ SUPRA 8

is recognized under chapter of the Evidence Act which has restricted use of forensic science in criminal trials in India. It is very difficult to say anything beyond reasonable doubt so far as techniques of ascertaining fact with the help of forensic science is concerned. But with the passes of time modern techniques developed in the field of Forensic science are capable of ascertaining facts somewhat beyond reasonable doubt. In this background it is more appropriate to conduct a study in the recent Judgments of Supreme Court of India to see the change in the approach and attitude of Judiciary in appreciating forensic evidences in Criminal cases.

Forensic Science and Criminal Prosecution

Scene of Occurrence:

A scene of occurrence can be defined as the meeting place of the persons involved in the crime. Traces are exchanged by the parties amongst themselves and with the scene, leaving odds and ends and mark of tools, wearing apparels, and means of transport, hands and feet.¹⁵ Thus, the scene of occurrence provides a wealth of information which is useful to:

- Establish corpus delicti
- Provide link between the criminal, the victim and the scene of occurrence; and
- Evaluate the pattern of events.

Except in the cases of forgery is less important due to limited utility, the scene is of great importance in almost all crimes.¹⁶ Planning, care and diligence are required in the examination of the scene. The success or failure of the investigation in many cases depends entirely upon the proper handling of the scene. The scene of occurrence cannot be preserved forever and changes rapidly.¹⁷

Some of the evidence gets lost soon after the occurrence; the other evidence disappears, gets contaminated or altered with further passage of time.¹⁸ The opportunity to examine the scene is available only once. If the same is not fully exploited the wealth of information is lost forever.

In Marachalil Chandra Tukaram Talekar v. State of Gujarat.¹⁹

It was argued with great vehemence in the High Court as well as in the court of sessions that there was trial of blood from the front door of the house of the vakil into the corridor rooms marked H and H-1 in the plan and that supported the defense theory that the deceased Kannan received the stab injuries not in or near the house in question but somewhere far away near the railway station. The High Court took the view that if Kannan had received the injuries somewhere outside the house it was impossible for him to have come into the room in view of the doctor's evidence. It was concluded on the material placed on

the record that there could be no room for doubt that Kannan received the injuries in the room itself and not outside, and that he was carried out of the room while life was still lingering and therefore, there would be dripping of the blood from the body during the course of transit as the injuries were very serious and vital arteries had been cut.

Fingerprints:

The identification of criminals through fingerprints was the first important break-through in the scientific investigation of crime. As usual, the judiciary and the public took some time to believe in the utility of fingerprints as a scientific aid.²⁰ The same is now recognized throughout the world. The importance of fingerprints in criminal investigation is immense, because they are:

Unique

Ridge pattern of each finger has individuality. The patterns vary not only from one individual to another, but they are different in the same individual on each finger. Duplication of pattern has never been observed. Nor the same is expected.

Permanent

The fingerprints of an individual do not change throughout his life. In fact, the ridges appear before birth. They start appearing during third or fourth month of pregnancy. They remain even after the death of the individual ever till the epidermal skin is destroyed by fire, putrefaction or is eaten by insects or other creatures.

In a murder case the body of the victim was partially burnt and buried. The same was discovered many days after the murder. The body was completely disfigured and could not be identified. The investigating officer got removed the remaining skin pieces from the tips of the fingers through a doctor. He sent them to fingerprint bureau along with the one authentic print of the deceased available on his will. The bureau confirmed the identity of the deceased. The digital skin pieces were recovered and sent to the finger print bureau. The fingerprints of the deceased tallied with the fingerprints of the convict, available in the records, the permanence of fingerprints permits identification of an individual even after many years, if his finger print record is available. Many criminals have been identified through this medium after years of absconding.

Universal

All individuals and hence all criminals carry this medium of identification. The finger digits and surface of the hands carry the friction ridges. The fingers have more intricate patterns. They allow easier individualization and classification.

A criminal uses his hands in the commission of crime. He leaves marks at the scene of occurrence or on the objects which come in contact in the commission of crime. There are fair chances of occurrence of finger prints, therefore in all types of crime.

Inimitable

Successful forgery of fingerprints has not been reported so far. Near perfect forgeries have been attempted. It is possible that the advancement of science may bring the forgery still closer to

¹⁵ "Forensic Sciences and Criminology" by Wafi Aziz Safwi. Available at www.legalservicesindia.com as visited on November 13, 2014.

¹⁶ Forensic Science in Criminal Investigation & Trials, B. R. Sharma, Fourth Edition, Universal Law Publications.

¹⁷ NIJ. Electronic Crime Scene Investigation: A Guide for First Responders (2001)

¹⁸ "History and development of forensic science in India" by RK Tewari, KV Ravikumar Bureau of Police Research & Development, Ministry of Home Affairs Government of India, New Delhi, India.

¹⁹ 1980 Cri. L.J.5 (Guj.)

²⁰ "Forensic Science in Criminal Investigation", Dr. Jai Shanker Singh, Unique Law Publications.

perfection but complete success in the enterprise is extremely difficult, if not impossible.

For all practical purposes it may be taken that it is not possible to forge a fingerprint. This is important because no person can deny his or her fingerprints. The identification through fingerprints is certain and infallible.

In Bazari Hajam v. King Emperor²¹

The question arose whether it will be safe to act on the uncorroborated testimony of the fingerprints and declare the guilt of the accused.

On this point Bucknill, J., observed thus:

"I think that apart from the fact that I should be rather sorry without any corroborative circumstances to convict a person of a serious crime solely and entirely upon similarity of thumb marks or finger prints, the very fact of the taking of a thumb-impression from an accused person for the purpose of possible manufacture of the evidence by which he could be incriminated is in itself sufficient to warrant one in setting aside the conviction upon the understanding and upon the assumption that such was not really a fair trial."

The above view was disapproved of by Schwabe, **C.J. in Public Prosecutor v. Kandasami Thevan**²² although the point did not directly arise in the case as there were thumb-impressions of the accused in evidence other than that taken by the judge in court for comparison with the thumb-impressions in the document alleged to have been forged.

Track Marks:

The culprit approaches, stays and then leaves the scene of occurrence. He leaves track marks on and around the place in the form of prints and impressions (collectively called "marks") of feet, shoes, tyres, hoofs and the like. The evidence often connects the criminal with the crime conclusively. It should, therefore be properly understood, collected, evaluated and presented in the courts. The track marks establish not only the presence of the culprit at the scene of crime but also give the number of participants. The evidence is helpful in tracking down the criminals to their houses or hide-outs, especially in India where most of the people live in rural areas. The roads in the country side are not metal led. Besides, the criminal, ordinarily, follows untraded routes; fields, garden and stream beds. He leaves track marks on routes used before and after the commission of the crime. The nature of the vehicle used in the commission of crime whether it is a cycle, scooter, car, bus, truck, tractor, rickshaw, bullock cart or a buggy can be ascertained. It is sometimes possible to identify the individual vehicle also. In some cases animals are involved in crimes sometimes.²³ For example, a horse or a camel may be used for transport; a cow, a buffalo or a bullock may be stolen or a dog or a tamed wild best, like a snake or a tiger may be used to destroy or kill a human-being or a domestic animal. The type of the animal or the beast can be found out from the track marks. Foot Wear marks includes the marks of shoes, sandals, chappals, socks and the like. The footwear may be factory- made or hand made.

Rejecting the contention that the study of footprints is not a science in **Din Muhammad v. Emperor**,²⁴ the court of the Judicial Commissioner at Nagpur (H.J. Stanyon and H.F. Halifax, A.J. Cs) as far back as in 1914 held:

"The knowledge of footprints has similarly been systematized and pursued by trackers, mainly uncivilized and ignorant people in all other respects, all over the world. The matter is therefore undoubtedly a science and the opinion of a person especially skilled in it is a relevant fact, under Sec- 45 of the Evidence Act".

Necessity of application of Forensic Science

In criminal investigation, use of forensic science is the need of the modern times. In India, the investigation of crime and prosecution of persons having committed the crime are not up to the mark. Even in heinous crimes large number of criminals could not be prosecuted and a few percentage of trials end in acquittal as a result of which number of criminals and crimes are increasing day- to- day. These frequent acquittals are mainly due to obsolete techniques of investigation which leave many loopholes. Thus, for effective investigation scientific ways of investigation is not necessary. The "third degree" methods used by the investigating agencies in British period are not accepted by the new generation of Criminal Investigating Agencies, judges and public at large.²⁵ "Third degree" methods for making confession have not completely vanished but their misuse has increased and to control over this issue, the Human Rights Commissions has been established in India and all over the world. Hence, modern scientific methods for investigation of crimes and connecting the criminals with the overt acts are very much necessary in order to make effective the Criminal Justice System.²⁶

Cases Solved using Forensic Science

Vasu v. Santha 1975 (Kerala)²⁷

In the above cases the court has laid down certain guidelines regarding DNA tests and their admissibility to prove parentage.

- (1) That courts in India cannot order blood test as a matter of course;
- (2) Wherever applications are made for such prayers in order to have roving inquiry, the Forensic evidences in Criminal Trial: Need of the Hour prayer for blood test cannot be entertained
- (3) There must be a strong prima facie case in that the husband must establish non-access in order to dispel the presumption arising under Section 112 of the Evidence Act.
- (4) The court must carefully examine as to what would be the consequence of ordering the blood test; whether it will have the effect of

²⁴ Central Provinces Police Gazette dated 27th May, 1914 pp. 125-130

²⁵ "Victims and Criminal Justice System in India: Need for a Paradigm Shift in the Justice System" Available at www.doiserbia.nb.rs as visited on November 13, 2014.

²⁶ Crime Scene and Evidence Collection Handbook. Washington, D.C.: Bureau of Alcohol, Tobacco and Firearms, 1999

²⁷ AIR [1986] M.P. 57,

²¹ AIR 1922 Pat.73:23 Cr. L.J 638

²² AIR 1927 Mad. 696:27 Cr. L. J 1251

²³ Saferstein, R. Forensic Science Handbook, Volumes I, II, III. Englewood Cliffs, N.J.: Prentice-Hall, 1982/1988/1993.

branding a child as a bastard and the mother as an unchaste woman.

- (5) No one can be compelled to give sample of blood for analysis. Further the court said Blood-grouping test is a useful test to determine the question of disputed paternity. It can be relied upon by courts as a circumstantial evidence, which ultimately excludes a certain individual as a father of the child. However, it requires to be carefully noted no person can be compelled to give sample of blood for analysis against his/her will and no adverse inference can be drawn against him/her for this refusal.

Tandoor Murder Case (1995) Delhi²⁸

This was the first criminal case in India solved by the help of forensics. In this case Shusil Sharma murdered his wife at home by firing three bullets in to his wife Naina Sahni's body. He killed his wife believing that she had her love affair with her classmate and fellow congress worker Matloob Karim. After murdering his wife Sharma took her body in his car to the Bagiya restaurant, where he and restaurant manager Keshav Kumar attempted to burn her in a *tandoor* there. Police recovered Sharma's revolver and blood-stained clothes and sent them to Lodhi Road forensic laboratory. They also took blood sample of Sahni's parents, Harbhajan Singh and Jaswant Kaur and sent them to Hyderabad for a DNA test. According to the lab report, "Blood sample preserved by the doctor while conducting the post mortem and the blood stains on two leads recovered from the skull and the neck of the body of deceased Naina are of 'B' blood group." Confirming that the body was that of Sahni, the DNA report said, "The tests prove beyond any reasonable doubt that the charred body is that of Naina Sahni who is the biological offspring of Mr. Harbhajan Singh and Jaswant Kaur." And finally Mr. Shusil Sharma was found guilty with the help of forensic evidences.

VI. CHANGES REQUIRED

Lack of work culture in the courts Hardly, any scientific data is available to support or refute this perception in relation to medical evidence. Therefore, it was planned to undertake a pilot study to analyze the quantum of time and effort put in by medical experts to get the evidence recorded in criminal courts and other issues related to it.

The influence of forensic science in India has been to such an extent that the Malimath Committee in its report asked a few section of the Criminal Procedure Code to be amended in order to accommodate the principles of Forensic Science like:

A specific law should be enacted giving guidelines to the police setting uniform standards for obtaining genetic information and creating adequate safeguards to prevent misuse of the same.

A national DNA database should be created which will be immensely helpful in the fight against terrorism. More well-equipped laboratories should be established to handle DNA samples and evidence. Efforts should be taken to create more

awareness among general public, Prosecutors, judges and police machinery.

The work in Forensic Science Laboratories being interdisciplinary in nature, there is a need to develop and supplement the "General Criteria for Laboratory Accreditation" for the purpose of accrediting Forensic Science Laboratories. The document "Specific Criteria for Accreditation of Forensic Science Laboratories" has been evolved by a Technical Committee specifically constituted for the purpose. It supplements the document "General Requirements for the Competence of Testing and Calibration Laboratories" and provides specific guidance on the accreditation of Forensic Science Laboratories for assessors as well as the laboratories who are preparing for accreditation.

Suggestions by Malimath Committee:

1. More well-equipped laboratories should be established to handle DNA samples and evidence.
2. A specific law should be enacted giving guidelines to the police setting uniform standards for obtaining genetic information and creating adequate safeguards to prevent misuse of the same.
3. A national DNA database should be created which will be immensely helpful in the fight against terrorism.
4. Sec. 313 of the CR.P.C must also be amended so as to draw adverse inference against the accused if he fails to answer any relevant material against him therefore, making it easy for the law enforcers to use DNA tests against him.

VII. CONCLUSION

There is a unanimity that medical and forensic evidence plays a crucial role in helping the courts of law to arrive at logical conclusions. Therefore, the expert medical professionals should be encouraged to undertake medico legal work and simultaneously the atmosphere in courts should be congenial to the medical witness. This attains utmost importance looking at the outcome of the case, since if good experts avoid court attendance, less objective professional will fill the gap, ultimately affecting the justice. The need to involve more and more professionals in expert testimony has been felt by different organizations. Though many plans have been brought before the ministry of Home Affairs which includes formation of Forensic Council where not only the Evidence Act but the Information Technology Act and The Code of Criminal Procedure will become complementary to the Science.

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AUTHORS

First Author – Nivedita Grover, B.B.A L.Lb, 5th year Learner, Symbiosis Law School Noida, India, niveditagrover20@gmail.com

Second Author – Isha Tyagi, B.B.A L.Lb, 4th year Learner, Symbiosis Law School Noida, India, isha04tyagi@gmail.com.