CHAPTER FIVE

Legal Policies – Recommendations of
Law Commission and Committees
We live in the 21st century which is guided mainly by science and technology. Every aspect of our life is greatly influenced as well as dependent on science and technology. On the positive side, science and technology has helped us lead our life in an easier and better manner but on the negative side, it has also resulted into perpetration of crime in a sophisticated manner. Its use in commission of crime has increased but unfortunately we have not utilized fully the potential of science and technology in investigation of crime. Crime is becoming more and more hi-tech these days which poses several complex problems that cannot be solved just by increasing the strength of police personnel while totally ignoring the scientific tools. Crime can only be contained when there is fair and effective investigation of crime, prosecution and appropriate punishment to the offenders. Investigation of crime cannot be effective just by using the old-fashioned techniques of torture and custodial violence during interrogation; there need to be a balance between the liberties and rights of the community as well as that of the accused. To punish the crime according to the law of the land, it is necessary to produce adequate evidence regarding the involvement of the accused. This situation requires the criminal justice delivery system to fully realize the potential of forensic science tools along with efficient police performance. Scientific evidence produced by forensic scientists, based upon the crime scene investigation and laboratory analysis of the clue materials, is indispensable to a considerable degree in any criminal investigation. Thus the forensic scientist is considered to be an unbiased expert witness in the court of law in modern criminal jurisprudence.
Successful and fair administration of justice depends on several factors including sound initial investigation thorough crime scene examination, professional evidence collection and its scientific analysis along with its interpretation and finally the presentation of the case in the court of law by the prosecution. If the quality of the evidence is poor the criminals may manage to go unpunished. Crime investigating agencies, courts, and forensic science establishments are the three arms of the criminal justice delivery system. If one arm weakens, the whole system falls down and the consequences are ultimately borne by the society. Therefore, it is necessary that investigating agencies, forensic science establishments and court of law, jointly and firmly uphold the criminal justice delivery system. Control of crime lies in making punishment more certain rather the severe. Neither brutality nor severity but the certainty of conviction, will create an effective deterrence to the criminals.

The Scientific Policy Resolution of India

The Scientific Policy Resolution adopted by the Government of India on March 4, 1958 clearly stated that the key to notional prosperity, apart from the spirit of the people, lies in technology which can grow out of the study of science and its application. A nation’s science policy is a statement of intent of what it stands for and the kind of role it takes upon itself to promote science for the cause of humanity. The Government of India prepared a scheme for setting up a chain of forensic science laboratories all over the country. Later on the “Central Non-Plan Scheme for Modernization of Police Forces” was also introduced. Under this scheme, every year the Central Government renders financial assistance to the States for the

modernization of their police forces. As per the norms of this scheme, 20% of the modernization grant is meant for the forensic science institutions in the State. The funds are to be utilized for buildings, their expansion and renovation, purchase of equipment and other aids to keep up with the rapid technological changes being felt elsewhere in the world.

**Existing Forensic Science Setup in India**

Most of the advanced countries have established forensic science institution, which are armed with the state-of-the-art equipment and well trained scientists. These institutions have helped a lot in the investigation process. In order to get best results from latest techniques like DNA finger printing, computer forensics, etc it is important to make some changes in the work practices. To be able to assess the cost benefit of forensic science to investigation, all other investigative costs must also be known. Forensic science techniques are used in far higher proportions in serious offences. We need to measure the utility of forensic science to the law enforcement agency through determination of the fact that how useful were forensic science techniques in determining the outcome of the cases. The cost of forensic evidence, including evidence collection cost, should also be compared to the full economic cost of alternate methods. Application of forensic science is the most cost effective solution to the crime investigation problem. For example by using the DNA fingerprint technique a paternity dispute or a rape case can be solved which would otherwise take some years. An efficient computer- forensic facility in a forensic science laboratory save huge amount of money every year. The speedy evidentiary forensic reports will also have immense social impact. Currently, the physical
evidence is primarily used in reactive manner for corroboration on the basis of an existing suspect.

**Situation Analysis in India**

The position of science and technology in a country is reflected through the state of forensic science in that country. Forensic science draws upon the general advances in science and technology and adapts them for forensic applications. The front between the evolving strategies of the criminals and the advancing forensic technology is never a static one. During the past few decades, the criminals seem to have moved ahead of the scientists. The main reason behind this is that the progress of research and development in the field of forensic science in India has been dismal. The capacity to act, rather than to think and innovate, has become the sole aim of the forensic scientists. The emphasis has been on today’s problems rather than tomorrow crimes.

**The Role of Central Advisory Committees**

Article 246\textsuperscript{217} of the Constitution of India read with the entry 65(c) of the Union List in the Seventh Schedule of the Indian Constitution vests the Parliament with the exclusive powers to make laws with respect of Union agencies and institutions for scientific or technical assistance in the investigation or detection of crime. The Union Government during 1956 appointed two committees for the

\textsuperscript{217} Article 246- Subject matter of laws made by Parliament and by the Legislatures of States

(1) Notwithstanding anything in clauses ( 2 ) and ( 3 ), Parliament has exclusive power to make laws with respect to any of the matters enumerated in List I in the Seventh Schedule (in this Constitution referred to as the Union List)

(2) Notwithstanding anything in clause ( 3 ), Parliament, and, subject to clause ( 1 ), the Legislature of any State also, have power to make laws with respect to any of the matters enumerated in List III in the Seventh Schedule (in this Constitution referred to as the Concurrent List)

(4) Parliament has power to make laws with respect to any matter for any part of the territory of India not included (in a State) notwithstanding that such matter is a matter enumerated in the State List.
purpose of devising ways for supporting all the States in establishing new forensic science laboratories and improving the existing ones, alongwith improving the study and application of forensic medicine. These committees were (i) Central Forensic Science Advisory Committee and (ii) Central Medico-legal Advisory Committee. The Central Medico-legal Advisory Committee was to advise the Central and the State Governments on matters pertaining to medico-legal procedures and practices. This committee made several important recommendations to the Government of India on the following subjects:

i. Under-graduate and post-graduate teaching of Forensic Medicine
ii. Establishment of a Central Medico-legal Institute
iii. Medico-legal procedures and practices in India
iv. Legal basis of forensic science

The Central Forensic Science Advisory Committee on the other hand considered the issues related to the sphere of forensic science (excluding forensic medicine). This committee made the following recommendations, which were accepted by the Government of India:

i. Establishment of a forensic science laboratory in every State, as early as possible, in addition to and not in place of the existing Chemical Examiner’s Laboratories.
ii. Training of forensic science laboratory personnel and equipment under Colombo Plan and other technical assistance programmes.
iii. Release of foreign exchange for the import of equipment considered essential and not available in India.
iv. Establishment of regional forensic science laboratories by the Government of India.

v. Facilities for training of investigating officers in the practical application of scientific aid to crime investigation in the forensic science laboratories.

vi. Publication of leaflet on the use of science in detection of crime for the investigating officers.

vii. Preparation of films on the use of science in the detection of crime in India.

The Central Medico-legal Advisory Committee was discontinued later whereas the Central Forensic Science Advisory Committee was converted into Standing Committee on Forensic science during the year 1972, which is functional even today in BPR&D.

**Indian Academy of Forensic Science**

The forensic scientists felt the need of an academy of their own, to pool in their knowledge, experience and bring them together along with keeping themselves informed about the latest research and development in the field of science across the world. With this view in mind, the Indian Academy of Forensic Science (IAFS) was established in the year 1960. This academy started a scientific journal, which served as a forum for the exchange of ideas in forensic science with other international bodies. The role of the Academy was also to hold annual scientific meetings/seminars or assist in holding seminars in forensic science. In fact, it was at the instance of this Academy that the Government of India established the Neutron Activation Analysis Unit to cater for the forensic needs of the country. Later the financial grant from BPR&D and basic support and assistance of its members has helped this plant not to wither but to thrive into its adulthood.
Report of National Police Commission

The National Police Commission constituted by the Government of India under the chairmanship of Mr. Dharam Vira, former Governor, in their third report (January 1980) recommended the modernization of forensic science in the country. It also suggested various organizational improvements in this important component of criminal justice delivery system. Chapter XXIV of the report titled “Modernization of Law Enforcement”, relates to forensic science and is still considered as bulwark in forensic science modernization within the country.

Creation of Forensic Science Division at BPR&D

On an invitation from the Government of India, Dr. V K Street, a forensic scientist from the Department of Forensic Edinburgh, United Kingdom, visited different Indian institutions during 1972 and submitted a report to the Government of India. He strongly recommended for creation of a post of Chief Forensic Scientist in the Ministry of Home affairs to look after its forensic science activities and to pay whole time attention for the development of forensic science in India. The Chief Forensic Scientist would be responsible for organizing, supervising and developing the National Forensic Science Service throughout India. He would also have to make every effort to maintain a very close liaison between various forensic laboratories and the police departments of various States. The Standing Committee on Forensic Science, during 1973, also recommended for the creation of a post of Chief Forensic Scientist so that the activities, which needed scientific inputs at the Union Government level, could be properly coordinated. The post of Chief Forensic Scientist was finally sanctioned during 1983, and the Forensic Science Directorate
was created in BPR&D. The incumbent to the post of Chief Forensic Scientist was
assigned the following roles:

i. Advise the Director General, BPR&D and the Government of India on matters
   relating to forensic science activities.
ii. Function as an adviser on forensic science matters at the national level.
iii. Coordinate the harmonious growth of forensic science in the country.
iv. Training of field police officers for creation of scientific awareness and develop
   potential for optimum use of scientific aids in crime investigation.
v. Management of research fellowship scheme in forensic science.
vi. Keep liaison with the universities and scientific institutions in India and abroad.
vii. Organize human resource development programmers on forensic science and
    technology at the national level.

**Recommendations of Scientific Advisory Committee to the Cabinet**

The then Prime Minister of India, Smt. Indira Gandhi, showed a great concern
about the unhealthy and unscientific conditions prevailing in forensic science
laboratories, which were providing scientific evidence for criminal investigation.
During 1983, she referred the matter to then Science Advisory Committee to the
Cabinet (SACC). The SACC, under the overall guidance of an Expert Committee
chaired by Prof. M. M. Sharma, a very distinguished scientist, looked at all the
issues in detail and visited the laboratories in Delhi, Calcutta and Hyderabad. The
committee noted that very powerful tools and scientific techniques were available at
these laboratories which could be utilized by various law enforcement agencies and
It was further recommended that these laboratories must be developed as science and technology institution, functioning in an autonomous fashion with complete modernization of equipment and trained manpower capabilities. It was fully recognized at that time that forensic science institutes in the country have to play a pivotal role in the areas relating to law and order and this cannot be done unless substantial scientific and technological innovations are introduced in the system. In pursuance of these recommendations, the Government of India declared the forensic science institutions at the Central Government level as Science and Technology institutions. The Expert Group of the SACC also recommended that forensic science should be brought under five year plans with the following objectives in view:

i. Re-organization of the manpower structure with augmentation of staff and their career prospects.

ii. Re-organization of the laboratories and provision for new facilities like building, library, etc.

iii. Provision of sophisticated equipment facilities to solve difficult crime cases.

iv. Training programs in India and abroad.

Based on the observation of the SACC, the promotion of research in the field of forensic science was introduced in the Seventh Five-Year Plan. During the Seventh Five-Year Plan, BPR&D evolved a master plan for restructuring each CFSL into fifteen scientific divisions. The Government approved the master plan for implementation in phases. In the first phase, the three Central Forensic Science Laboratories at Calcutta, Hyderabad, and Chandigarh were restructured into six scientific divisions’ viz. Biology, Ballistics, Chemistry Explosive, Physics and Toxicology. Similarly, the offices of the Government Examiners of Questioned
Documents at Shimla, Calcutta, and Hyderabad were strengthened in terms of manpower. Besides augmentation of staff, all the BPR&D laboratories registered significant progress in the acquisition of sophisticated analytical equipment and modernizing the laboratory and the library facilities for smooth working of these institutions.

**New Mandate to the CFSLs of BPR&D**

During the mid 1990’s, the utility of three CFSL’s at the national level was questioned. The reason for this was that most of the states had established their own forensic science laboratories and hence, the role of CFSL’s in providing forensic analytical support was diluted. Though, certain schemes were taken up for the CFSLs, during the Eighth Five-Year Plan period but they did not result into any focused research activities in the thrust areas of forensic science.

The role of the CFSLs of BPR&D was defined during 1970’s. The justification for the existence of the three Central Forensic Science Laboratories under the BPR&D was thought to be two fold. One, they should act as epitomes of quality and high standards for the State laboratories to emulate. They should not only set visibly higher standards in quality of analytical processes and reporting accuracy, but also should be the repository of standards and benchmarks against which the performance of all the State FSLs can be judged. Secondly, since forensic science is one to the most dynamic sciences, CFSLs should provide R&D support to this field of science. Every new research, development and invention in any
discipline of science should be integrated as a potential application in forensic science and this job was entrusted to CFSL’s.

However during 1990’s, a new strategy was evolved to bring about a complete paradigm change in the structure of the three CFSLs and provide them a new focused mandate of R&D and specialized training. The three CFSL’s were reorganized with an aim to focus on research and development activities, in the area of forensic science. Apart from focusing on the research and development activities, these laboratories also undertook criminal case investigation in all the fields of forensic science. But the forensic analysis work they receive now is mainly from those Central government and State government organizations which do not have their own forensic science facilities. These laboratories also act as the referral centers for handling forensic analysis of crime cases requiring extensive investigation and high expertise received from the court of law, State and Central forensic science institutions and other crime investigating agencies in India. The designated fields were chosen as follows:

CFSL, Calcutta  
Forensic Biological Sciences

CFSL, Hyderabad  
Forensic Chemical Sciences

CFSL, Chandigarh  
Forensics Physical Sciences

The Neutron Activation Analysis Unit of CFSL, Calcutta, functioning at the Baba Atomic Research Centre Mumbai is now brought under the administrative control of CFSL, Hyderabad.
**Research Fellowship Scheme in Forensic Science**

Under this scheme, the Bureau of Police Research and Development awards twelve Junior Research Fellowships every year for research and development work in forensic science to the selected candidates. After a thorough assessment of its contribution towards growth of forensic science in the country, the scheme was redesigned during 1999, to make it more attractive and bring it at par with the other Junior Research Fellowship Schemes at the national level. Under the revised scheme, the research fellows would have to work for the development of need-based and application-oriented forensic science techniques, as envisaged by the BPR&D laboratories, at the designated centers of excellence. Hopefully, this scheme can increase the pace of research and development activities in the country and more importantly, generate sufficient number of trained manpower for employment in the forensic science establishments across the country.

**Ninth Five Year Plan Formulation**

The Planning Commission had constituted a Working Group under the chairmanship of Prof. P Rama Rao, a distinguished scientist at DRDO and former Secretary, Department of Science and Technology, Govt. of India in 1996 to formulate action plan with respect to forensic science in the Ninth Five-Year Plan. The Director General of BPR&D was a member of this Group and the Chief Forensic Scientist, BPR&D was the Convener. The Working Group after detailed deliberations identified the following front-line areas for focused R&D efforts in BPR&D laboratories:
i. Development of indigenous' nuclear and laser devices for detection and determination of age of ink and paper in Indian context.

ii. Development of computerized image enhancement and processing.

iii. Development of analytical techniques for identification of drugs and poisons.

iv. Development of techniques for determination of time of firing.

v. Development of computerized pattern analysis technique for firearm identification and establishment of data bank.

vi. Computer frauds and their detection.

vii. Computer networking of all FSLs (WAN) for information exchange

viii. Thermal imaging applications for crime investigation.

ix. Database on DNA and sexing of bio-specimens using DNA probes.

x. Information highways for forensic sciences

xi. Human resource development in forensic science.

**NHRC Report on Forensic Science**

The important role played by forensic science in the field of human rights led the National Human Rights Commission to take steps to correct the aberrations in this field. Justice V S Malimath, Member NHRC, therefore, took up this project, and constituted a Core Group of four forensic scientists with Dr. R K Tewari, Chief Forensic Scientist at BPR&D as the Convener. This committee was asked to comprehensively examine all the aspects of forensic science practices in India and make appropriate recommendations for bringing qualitative and quantitative improvements in the forensic science laboratories within the country. Earlier, the Tewari Committee had submitted a comprehensive report in March 1999 containing recommendations for improvement and strengthening of the existing forensic
laboratories along with establishment of new well-equipped laboratories to meet the growing demands. This report was adopted by the NHRC in its totality and was published as an NHRC document entitled “State of the art Forensic Sciences for Better Criminal Justice”218. The NHRC then submitted this report to the Ministry of Home Affairs, Govt. of India for their consideration.

Main suggestions by the Committee were:

i. Sec 313 of Cr.PC must be amended to draw adverse inference against the accused if he fails to answer any material against him thereby, making it easy for the law enforcement agencies to use DNA test against him.

ii. A specific law should be enacted to issue guidelines to the police authorities for standard procedure for collection of genetic information for individuals and creating adequate safeguards to prevent the misuse of the same.

iii. A national DNA database should be created which will be immensely helpful in the fight against terrorism.

iv. More equipped laboratories should be established to handle DNA samples and evidence.

v. Efforts should be taken to create more awareness amongst judges, police machinery and general public regarding utility of forensic science in criminal investigation and prosecution.

Malimath Committee on Reforms of Criminal Justice System

Some of the major recommendations by the committee in this regard are:

i. Most of the Laws, both substantive as well as procedural were enacted more than 100 years back. Criminality has undergone a tremendous change qualitatively as well as quantitatively. Therefore the apparatus designed for investigation has to be equipped with laws and procedures to make it functional in the present context. If the existing challenges of crime are to be met effectively, not only the mindset of investigators needs a change but they will have to be trained in advanced technology, knowledge of changing economy, new dynamics of social engineering, efficacy and use of modern forensics etc. Investigation Agencies are understaffed, ill equipped and therefore the gross inadequacies in basic facilities and infrastructure also need attention on priority.

ii. Specialized Units/Squads should be set up at the State and District level for investigating specified category crimes.

iii. A panel of experts be drawn from various disciplines such as auditing, computer science, banking, engineering and revenue matters etc. at the State level from whom assistance can be sought by the investigating officers.

iv. Infrastructural facilities available to the Investigating Officers especially in regard to accommodation, mobility, connectivity, use of technology, training facilities etc. are grossly inadequate and need to be improved as top priority. It is recommended that a five year rolling plan be prepared and adequate funds should be made available to meet the basic requirements of personnel and infrastructure of the police.

v. Forensic Science and modern technology must be used right from the commencement of investigation. A cadre of Scene of Crime officers should be created for preservation of scene of crime and collection of physical evidence there-from.

vi. The network of CFSL's and FSL's in the country needs to be strengthened for providing optimal forensic cover to the investigating officers. Mini FSL's and Mobile Forensic Units should be set up at the District/Range level. The Finger Print Bureau and the FSL's should be equipped with well-trained manpower in adequate numbers and adequate financial resources.

vii. Forensic Medico Legal Services should be strengthened at the District and the State/Central level, with adequate training facilities at the State/Central level for the experts doing medico legal work. The State Governments must prescribe time frame for submission of medico legal reports.

viii. Identification of Prisoners Act 1920 be suitably amended to empower the Magistrate to authorize extraction of fingerprints, footprints, photographs, blood sample for DNA, fingerprinting, hair, saliva or semen etc., from the accused on the lines of Section 27 of POTA 2002.

ix. A suitable provision to be made on the lines of section 36 to 48 of POTA 2002 for interception of wire, electric or oral communication for prevention or detection of crime.

x. Evidence of experts falling under Sections 291, 292 and 293 of the Code of Criminal Procedure may as far as possible received under Affidavit.

xi. DNA experts should be included in subsection 4 of Section 293 of the Code of Criminal Procedure.

xii. The existing Economic Intelligence Units under Ministry of Finance to be strengthened suitably by induction of specialists, state of the art technology and
specialized training. To achieve a common preventive strategy for tackling serious economic crimes, it is necessary that a closer coordination be maintained between the SFO, the Intelligence Units and the regulatory authorities as also private agencies. They should develop and share intelligence tools and databases, which would help investigation and prosecution of cases.