

STRENGTHENING FORENSIC LAW IN THE DIGITAL AGE: A PATH TO PEACEFUL INCLUSIVE AND SUSTAINABLE SOCIETIES

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Abstract: Since from millennium development goals 2015 to sustainable development goals 2030 all the states of the world are targeting to achieve the most central and fundamental global development frameworks, based on the peaceful and inclusive societies. Peaceful and inclusive societies play a crucial role in promoting sustainable development, social harmony, and the well-being of individuals. They are fundamental to attaining long-term sustainable growth, social advancement, and an improved quality of life for everyone in the community.

Peaceful and inclusive societies offer a ground of social cohesion with fair access to resources and uphold human right, both needs to go hand in hand for sustainable development. There are several mechanisms for promoting peaceful and inclusive societies like inclusive and transparent governance, social safety nets and welfare schemes, economic-policies, technological innovations, international cooperations, public participation etc but the most vital are Rule of law and legal system. The author is of firm belief that a fair and accessible legal system is the end to all problems which hinders the path of sustainable development. This system implies that equality before the law applies to all people, regardless of their social status; by enforcing anti-discrimination laws, protecting human rights, and providing access to justice for everybody, a legal system fosters equity and stability, and in the present digital era the author is of firm belief that along with the other resources which aids in claiming justice, strong and robust forensic law would augment acceleration to the judicial system in achieving the sustainable goal towards access to justice for inclusive society.

Keywords: Sustainable development goals, inclusive societies, Judicial system, access to justice, forensic laws.

INTRODUCTION

From millennium development goals 2015 to sustainable development goals 2030 all the states of the world are targeting to achieve the most central and fundamental global development frameworks, which is based on the Peaceful and Inclusive Societies. The Sustainable Development Goals constitute a global framework that brings together the world in terms of efforts to improve human lives. The Sustainable Development Goals consider the interconnection of these goals, realizing that the issues of social, economic, and environmental are totally interrelated and cannot be treated in separation. Sustainable development is not only about enhancing economic growth but is also about increasing the quality of life for all people with a safeguarded environment for future generations.

In essence, the SDGs bring together a comprehensive approach where governments, businesses, civil society, and individuals

collaborate to bring about global well-being and justifiable development. Through collaborative action, the world can achieve a more equitable, just, and sustainable future. The Sustainable Development Goals (SDGs), established by the United Nations in 2015¹, serve as a collective call to action for achieving a more equitable, peaceful and inclusive society. Peaceful societies are characterized by the absence of violence, conflict, and instability resulting in allocation of resources towards productive and developmental activities of a country and is also the place where individuals predominantly have equal access to legal protection and the ability to seek justice. This includes ensuring fair and impartial legal systems that are accessible to all citizens, especially those from marginalized or underrepresented groups. In the democratic country like India where rule of law is the key indicator the well- developed and strong legal system act as a backbone and root for its development. Rule of law implies to three

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¹ UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1, 21 October 2015, [Refworld](https://www.refworld.org/docid/453d8d9f.html) [accessed 11 April 2025]

important aspects first that, laws apply equally to all, secondly, human rights are ensured to all, and thirdly, that there is an independent judiciary. The equitable administration of justice prevents conflict ensuring fairness it also increases accountability and transparency in governance, so that individuals feel safe and their rights are protected.

A. Need of Peaceful and Inclusive Societies

Peaceful societies are characterized by social harmony, where people and communities, live in congruence irrespective of their ethnicity, religion, gender, or socioeconomic status. There is a sense of belonging and respect for one another thus giving rise to social inclusiveness. It encourages trust among citizens, and reduces tensions, ensuing long-term peace and inclusivity in the society. Such societies are marked by effective governance, and a secure political climate which ensures peaceful dialogue, democratic engagement, and peaceful conflict resolution. The ingredients of peaceful societies and access to justice are similar to the extent that these both requires the attribute of freedom and independence of expression and participation irrespective of any dissimilarity of sex, religion, colour etc.

Peaceful societies are the outcome of inclusive society which means every individual in that society, irrespective of their gender, ethnicity, race, religion, or socioeconomic background, are entitled to equal rights and opportunities, by this framework of peace and inclusiveness the dream of sustainable societies comes to reality creating an environment where businesses can thrive, governments can function effectively, and citizens can live in safety and security.

Inclusive

[https://www.internationalwomensday.com/Theme-societies-empower-various-vulnerable-groups-including-women², children, minorities, and those with disabilities, equitable opportunity of participation in social, economic, and political processes. An inclusive society is a place where everyone from every walk of life, with all the diversity, is given an opportunity to take full participation in social, economic, and political life. It has to do with ensuring equality, equity, and access to opportunities, resources, and decision-making processes, with respect for diversity and social cohesion. Meaning and purpose of an inclusive society within the](https://www.internationalwomensday.com/Theme-societies-empower-various-vulnerable-groups-including-women-children-minorities-and-those-with-disabilities-equitable-opportunity-of-participation-in-social-economic-and-political-processes)

Sustainable Development Goals (SDGs) form the nucleus of the effort toward a just, fair, and sustainable world. Both (Inclusive and peaceful societies) needs to go hand in hand for the sustainable development.

There are different mechanisms for promoting peaceful and inclusive societies like inclusive and transparent governance, social safety nets and welfare schemes, economic-policies, technological innovations, international cooperations, public participation, environmental and climate sustainability, technological development etc but the most vital amongst all through which the remaining mechanisms would work aptly are Rule of law and legal system. Today the rule of law and strong judicial system are the two fundamentals obligatory for a sustainable society. A robust legal framework brings fair, just and accountableness coupled with the compliance of human rights for progress and development and the fundamental aspect of the rule of law is access to legal remedies and protections. This is particularly important for marginalized or vulnerable groups, such as women, ethnic minorities, refugees, and people with disabilities, who might otherwise face systemic discrimination or exclusion. Access to justice or legal remedies promotes social equity by offering a mechanism for addressing grievances and securing rights. The legal system ensures that policies, regulations, and laws are implemented to safeguard citizens and the environment are executed in a just and non-discriminatory manner. From environmental protection to labour rights to consumer safety, sound legal institutions guarantee that the law is written, but most importantly, that it is put into action effectively to ensure everyone gets a fair share and policies are followed.

The Grund norm of India i.e. Indian Constitution is considered as the ultimate and foundational source of the legitimacy as well as rationality of all laws of the country's legal system. The Preamble of the Constitution which is said to be the integral part of the entire Constitution³ talks about certain promises made by the people of India, to the people of India regarding political, social and economic Justice, as well as equality before law which is essential for dignity of all individuals. Justice ensures that all people, regardless of caste, creed, gender,

² International Women's Day 2024: Inspire Inclusion

<https://www.internationalwomensday.com/Mission/s/20202/What-does-it-mean-to-truly-inspire-inclusion>.

³ Kesavananda Bharati v. State of Kerala, AIR 1973 SC 1461.

religion, or economic background, are treated equally before the law. In India specially, where historical injustices like caste-based discrimination, gender inequality, and economic disparity have long existed, justice plays a critical role in streamlining the rights of the individuals.

B. *Inclusive societies and Sustainable Development Goal (16)*

The synonym for any 'developed nation' is 'equality, social justice, and the active participation of all individuals', in other words an Inclusive society. An inclusive society would empower people, fosters peace, and promotes sustainable development by recognizing the value and potential of all its members, regardless of their backgrounds, identities, or circumstances. Every country is striving to achieve this inclusivity by building strong government institution and robust political participation of public. Inclusivity prevents social unrest, violence, and conflict. If societies are inclusive, the members feel valued, and they do not resort to violence or civil disobedience to show their discontentment with their situations. Inclusive societies encourage social cohesion as they bring everyone together with equal opportunities by eliminating inequality. By doing this, they facilitate a more peaceful and stable society.

The major setback for any nation in the development is the corruption which can be reduced by making a nation an inclusive society by promoting transparency, participation, and accountability amongst its citizens and government. When people from all walks of life are involved in shaping institutions, the risk of corruption gets minimized, and public trust is strengthened. The systemic inequality is also addressed by ensuring that wealth, power, and opportunities are distributed equitably, thereby reducing grievances and the potential for conflict. Inclusive societies emphasize on restorative justice, and the participation of all segments of society in peace processes thus strengthening sustainable peace and justice. It also ensures that all people, regardless of their race, gender, ethnicity, or socio-economic status, have equal **access to justice** which can only be achieved by eliminating barriers to legal services, advocating for fair treatment, and ensuring protection for marginalized groups like refugees, people with disabilities, LGBTQ+ community and those from disadvantaged

backgrounds. The right to legal representation, the right to a fair trial, and the elimination of discrimination in legal processes all are structural elements of justice, and their enhancement would flourish in inclusive societies.

C. *Access to Justice under Indian Legal System*

The Indian legal system is a gigantic structure based on the Constitution of India which is the law of the land. The system is built mainly on three pillars viz., justice, equality and fairness and aims to ensure that all citizens have access to justice. Access to justice is a fundamental human right which means individuals can get redressal of grievances, enforce their rights and get justice for violation of law. Access to justice in Indian jurisprudence means the ability of an individual to get a fair hearing and remedy under the law, regardless of his social, economic or cultural status. Indian legal system is based on the principles enshrined in the Constitution of India and its jurisprudence has evolved over time to ensure that all individuals have access to justice, especially the marginalized and disadvantaged sections. The judiciary in India has played a dynamic role in expanding the scope of access to justice, interpreting constitutional provisions in a broad and inclusive manner.

The Indian Constitution provides a strong framework for access to justice, guaranteeing certain fundamental rights⁴ and legal remedies that protect individuals' ability to seek justice. Access to justice is a vital element in building a peaceful and inclusive society. It ensures that all individuals, regardless of their background, have the ability to seek redress and assert their rights in a fair and impartial system. When individuals believe that there exists a strong legal system where they can turn to resolve their disputes and seek justice, they are more likely to feel valued and included in society which in turn reduces discrimination and fosters social cohesion amongst people. Access to justice provides a platform for marginalized and vulnerable groups (such as women, children, minorities, and the poor) to assert their rights and seek protection from discrimination or abuse and it also gives all people a zeal to participate fully in their economic, political, and social life, giving strength to the nation.

Access to justice also fortifies rule of law which is a cornerstone of peaceful society. Rule of Law means that everyone is subject to the law, and

⁴ **Article 14:** "Article 14, Constitution of India".
Article 21: "Article 21, Constitution of India".
Article 39A: "Article 39A, Constitution of India".

Article 32 & 226: "Article 32, 226, Constitution of India".

laws are applied impartially. This premise gives every individual belief that they have the opportunity to challenge unlawful actions or hold others accountable; it encourages adherence to legal norms. This system of accountability helps to maintain order, prevent impunity, and deter corruption, all of which contribute to a more peaceful society. A fair justice system is key to social justice it can unite us around shared values and create a national identity based on fairness, equality and justice. This sense of collective identity can build social harmony where every individual feels like equal players in the national game resulting in peaceful coexistence and collective progress. Social stability and inclusive participation are the foundation of Sustainable development. When we have access to justice, we are more likely to advocate for policies and practices that support environmental, economic, social and political sustainability. A legal system that is accessible to all citizens ensures development and benefits to everyone equally and addresses the root causes of inequality and conflict.

It is the most critical in the building of a peaceful and inclusive society. By ensuring equality, promoting respect for human rights, fostering resolution of conflict, and empowering citizens. Access to justice offers a platform of trust, fairness, and social stability. An equitable, accessible, and responsive system of justice promotes the peaceful coexistence of all citizens in society, facilitating inclusive participation in national development and helping to resolve disparities that could lead to conflict and exclusion. Enhancing access to justice is, therefore, the most vital and crucial in the building of a harmonious and equitable society. Internationally also access to justice is increasingly recognized as a key component of post-conflict peacebuilding. More international actors (international governmental organizations, donor agencies, non-governmental organizations) are incorporating access to justice programs into their peacebuilding initiatives.⁵

Access to justice is closely related to the **speedy** and **fair trial**. Speedy trial guarantees that

justice is not delayed⁶, which is prejudicial to the parties involved whereas fair trial guarantees that the judicial process is impartial, transparent, and in line with natural justice principles. The speedy trial is not limited to the trial itself but also extends to all stages of the legal process, including investigation, enquiry, and also appeal⁷. The need for fair and speedy trial is not the novel concept it has a long history.⁸ "Trial" refers to the judicial process through which a court examines evidence⁹ placed before it by the prosecution and the defence to determine whether a suspect of a crime is innocent or guilty it has significant stages such as framing of charges, examination of witnesses, production of evidence, statement of the accused person, and ultimately the verdict by the court of conviction or acquittal.

Framing of charges in a criminal case is the formal accusation of an individual committing an offence or crime. During the process, the court reviews the evidence and the allegations presented by the prosecution and if it finds sufficient grounds to believe that the accused has committed the offence, it formulates and formally presents the charges against the accused. Charges are framed based on evidence and allegations presented by the prosecution. The court assesses whether there are reasonable grounds and evidences to proceed against the accused and if the prosecution fails to establish the guilt beyond reasonable doubt, then court even gives benefit of doubt under Indian criminal jurisprudence, the benefit of doubt underscores the presumption of innocence until proven guilty.¹⁰ It is a fundamental component of the criminal justice system, ensuring due process, fairness and the protection of the rights of both the accused and the prosecution.

Framing of charge depends on the successful and fair investigation, fair investigation comprises of several components including honesty and competence. Thus, it is emphasized that investigation must be based on scientific evaluation that is expected to give objective results at least superior to the verbal testimonies¹¹ of crime and fair administration of justice which are primarily based on the quality

⁵ UNDP, Programming for Access to justice. Justic. <https://www.undp.org/justice/access-to-justice#:~:text=UNDP%20believes%20that%20a%20people,and%20the%20causes%20of%20injustice,http://www.peacebuildinginitiative.org/indexa8b0.html?pageId=1813>

⁶ Abdul Rehman Antulay v. R.S. Naya 1988 AIR 1531

⁷ Kartar Singh v. State of Punjab 1994 SCC (3) 569

⁸ Twelve Tables rules of Rome 451–450 BC, Magna Carta (1215), UDHR (1948), ECHR (1950), ICCPR (1966), ACHR (1969) etc.

⁹ Section 2(1)(e) Bhartiya Sakshya Adhiniyam, 2023.

¹⁰ State of Haryana v. Bhagirath & Ors. (1999) 5 SCC 96.

¹¹ Dr. Parminder Kaur, 'Fair Investigation: Backbone of Criminal Justice System' in The Haryana Police Journal Vol.3, 2020.

of evidence¹². If the quality of the evidence is poor, as has been the case with eyewitness testimony, the criminals manage to go unpunished¹³. Majorly crimes are committed in the dark web hence the conviction and acquittal of the accuse are based purely and majorly on the circumstantial evidences sometimes with no direct evidence. The investigating authorities are at the helm of the limited available circumstantial evidences and some testimonies of the accessible witnesses. The task of collection of evidence has become more challenging in the present time when the advanced techniques are used by the criminals to commit crimes as the techniques, methods and process for collection of evidences opted by the investigating authorities are still older.

D. Relevance of Forensic Law

As we have already discussed the importance of evidence in any criminal trial, there are cases where the apex court have observed that with the passage of time, witnesses cease to be available and memories cease to be fresh. Vanishing witnesses and fading memories increases the onus on the prosecution and create situation for them even more burdensome and makes the task of proving the guilt more cumbersome.¹⁴ The court has even quantified that this right of speedy trial is applicable not only to the actual proceedings in court but also includes within its sweep the preceding police investigations as well.¹⁵ In the very recent judgement apex court have emphasized again that judicial delays harm judicial system, accused and victims.¹⁶

The urgency was felt to expand forensic science facilities to improve the quality of evidence. With this aim, the Government of India prepared a model scheme in 1958 and decided to introduce the concept of forensic science in the Indian criminal justice system by setting up Forensic Science Laboratories. Further, to strengthen these laboratories, the Government of India introduced a scheme to modernize State police forces. However, for the last few decades

with the limited funds available the advancement of high- class forensic laboratories is minimal looking at the increasing crime rates, upgraded techniques and less equipped laboratories

ROLE OF FORENSIC LAW IN INDIAN LEGAL SYSTEM

The previous session discusses about the speedy trial and access to justice. Forensic law in India is the branch of law that deals with the application of scientific methods and techniques to investigate crimes, examine evidence, and present findings in a court of law, it is one of the modes of access to justice. Forensic laws also include the legal framework for forensic experts and their testimony in court¹⁷. The law requires that forensic experts be trained and qualified in their respective fields and that their testimony be objective, impartial, and based on sound scientific principles. Forensic law has been a revolutionizing force in the global criminal justice system through the provision of scientific instruments which increase the effectiveness and impartiality of criminal investigations and trials. While starting with early applications of medical jurisprudence¹⁸, world progressed to the extensive application of contemporary DNA profiling and digital forensics. Forensic law integration with criminal justice not only assists in crime solving but is also paramount in the protection of individuals' rights, avoidance of wrongful conviction, and ensuring equity in the justice system. As the techniques for committing crimes increased the complexity to solve such criminal cases also increased which raised the need of testimony by the experts.

The evolution of forensic science in criminal law investigation process is a gradual advancement from primitive means of crime-solving to advanced scientific methods which are the backbone of contemporary criminal investigations. The criminals have been using

¹² Clear and convincing evidence

¹³ Jitendra Kumar Mishra @ Jittu vs State of MP, 2024 SCCONLINE SC 20; Mohd. Muslim v State of Uttar Pradesh (Now Uttarakhand) 2023 SCCONLINE SC 737 (Acquittal of father-son duo after 27 year old murder case by according benefit of doubt)

¹⁴ *State of Maharashtra v. Champalal Punjaji*, AIR 1981 SC 1675

¹⁵ *Vakil Prasad Singh v. State of Bihar* AIR 2009 SC 1822

¹⁶ *Tapas Kumar vs State of Chhattisgarh*, CRIMINAL APPEAL No.738 OF 2025.

¹⁷ Section 39 of the Bhartiya Sakshya Adhiniyam, 2023

¹⁸ Under the ancient Greece law: Hippocrates (c. 460–370 BCE), who are considered as the father of modern medicine, introduced the practice of examining bodies to determine causes of death. Roman law also had provisions for medical examination of the deceased in suspicious cases. Under the Roman Law: Justinian's Code (529 AD) included early references to medical expertise and forensic techniques in criminal investigations. Legal procedures required physicians to determine the cause of death or injury.

the updated methods of science in commission of crime and escaping from the criminal liabilities. The use of science in commission of crime is not new, if we look back during Mahabharata times the Kauravas constructed Lakshagrah to kill Pandvas, it was a palace made of material called 'lac' which catches fire easily and quickly. During Kautilya's period also traces could be found of use of science in commission as well as for catching the offender. Today when science is so developed and advanced it has become indispensable to make it a part of criminal investigation system.

From ancient societies in which elementary forensic concepts were used to the revolutionary discoveries in DNA and computer forensics, forensic science has emerged as a necessary aid in dispensing justice.¹⁹ Forensic Law, science and evidence are different notions sometimes used interchangeably but these three terms have specific connotation and different concept. Forensic law, deals with the legal practices involved in utilizing forensic science in the criminal justice system. It regulates how forensic evidence is taken, treated, and handled for presentation before the courts so it can satisfy the requirements of being admissible within criminal or civil courts. It merges principles from both science and law to ensure the forensic analysis findings are acceptably legal. Forensic Science on the other hand is the use of scientific techniques and methods to examine crime and legal issues. It is the process of collecting, analysing, and interpreting physical evidence from a crime scene to solve criminal cases. Forensic evidence refers to any physical, biological, or digital material collected from a crime scene or other related locations that can be analyzed to support or refute facts in a criminal investigation or legal proceeding. This evidence is crucial in criminal

investigations, helping law enforcement to establish connections between suspects, victims, and crime scenes, as well as providing insights into the sequence of events. The types of forensic evidence can vary widely depending on the nature of the crime it includes physical²⁰, biological²¹, trace²², toxicology²³, forensic pathology²⁴, fingerprint, ballistic²⁵ and the most-latest one is digital evidence²⁶.

In many of the statute specially relating to the crimes against children and women forensic criminology has strongly upheld the right to access to justice by making provisions for medical examination and medical opinions, like the Protection of Children from Sexual Offences Act, 2012 (POCSO), the Malimath Committee's (Committee on Reforms in the Criminal Justice System relating to Forensic Science) 2003; and Criminal Reform 2013, which recommends the role of forensic science in crime investigation. Accordingly, the Indian judiciary in some cases has laid emphasis on forensic evidence, medico-legal examination, fingerprinting, and DNA profiling²⁷. Keeping in view the surrounding digital and technological advancement the sea changes have been introduced in all the three criminal laws of the country. The current Bharatiya Nayaya Samhita ,2023 has now incorporated many provisions which has made the use of scientific methods as mandatory for investigation.²⁸

The new law not only incorporates provisions related to forensic science but also for digital evidences viz.; the role of audio-video technology in supporting police crime scene investigations. The 'recording of search and seizure through audio-video electronic' means.²⁹ Recording of the evidence or statement of Rape victim, any other witnesses

¹⁹ In ancient Egypt, medical practitioners were expected to investigate unnatural deaths, and the first use of autopsies was recorded as early as 3000 BCE to determine the cause of death. In China during ancient times a detailed account of forensic procedures was recorded in the "Hsi Duan Yu" (The Washing Away of Wrongs) written during the **Song Dynasty** (13th century). This text outlined the use of physical evidence such as **bloodstains, wounds, and bite marks** to solve crimes. **Forensic entomology** (the study of insects in death investigations).

²⁰ Weapons (guns, knives, etc.), Clothing (worn by the victim or suspect), Fibers (clothing fibers, carpets, etc.), Hair (human or animal hair), Bullets or Shell Casings (from shootings)

²¹ DNA (from blood, saliva, semen), Blood, Semen (sexual offence), Saliva, Sweat

²² Gunshot Residue, Soil, Glass Fragments etc.

²³ Blood or Urine Samples, Stomach Contents, Hair or Fingernail Samples

²⁴ Cause of Death, Time of Death, body temperature, or Injury Patterns

²⁵ Analysis of firearms, bullets, and gunshot wounds to determine how the crime occurred

²⁶ Cell Phone Data, Computer Files, Social Media Activity, Surveillance Footage, Data from Digital Devices.

²⁷ K.S. Puttaswamy (Retd.) v. Union of India AIR 2017 SC 4161.

²⁸ Section 176(3) of the Bharatiya Nagarik Suraksha Sanhita (BNSS),2023

²⁹ Section 105 Bharatiya Nagarik Suraksha Sanhita (BNSS),2023

through audio visual mode.³⁰ It has also extended the range of forensic evidence which now includes finger-prints, voice sample, signature and handwriting etc.³¹ The development of forensic science will play a more and more central role in criminal justice system, assisting in solving crimes, clearing the innocent, and aiding the rule of law strengthening the right to access to justice of an individual thus promoting peace in the society.

CHALLENGES AND PROSPECTS IN FORENSIC LAW

Forensic law today has a very important role to play in criminal justice delivery system, but is yet to reach the essential confidence level. The courts are playing proactive role since from time immemorial to rely on the forensic evidence for deciding the liability of the accused³². Even though the courts do not consider forensic as the conclusive evidence but at many instances have placed equal reliance on it.³³ The Madras High Court in one of the case has ruled that digital photographs are primary evidence, negating the need for negatives, provided they comply with Section 65B of the Evidence Act.³⁴ In another landmark case the Court mandated that electronic records on memory cards or pen drives be treated as documents, allowing accused access to cloned copies for defence, with privacy concerns addressed through restricted access and court directives.³⁵ Although there has been significant progress in the use of forensic science in criminal law in India, many shortcomings still persist, particularly in areas such as-

- infrastructure deficiencies where labs are not up-to mark,
- accessibility to all is one of the major set-back as the trusted laboratories are situated in the limited geographical zones minimizing the utility of it to be used as an vital piece of evidence,

- delays in collection of evidence,
 - mishandling of the evidences,
 - negligence in storing and preserving the collected evidences³⁶
 - lack of public awareness, and
 - the shortage of expertise still prevails,
- all these and lack of many other contingent necessities act as hinderance in ongoing reforms towards enhancing the efficiency of forensic law in justice delivery system.

CONCLUSION AND SUGGESTIONS

Time has come that we shift and boost our forensic law and evidence by emphasizing on importance of examining the scientific validity of forensic evidence as the case in United States.³⁷ When a crime is committed it is not only the victim who suffers but his family, and entire society suffers, as the crime is committed against the entire society, hence while deciding the guilt paramount importance cannot only be given to an accused person but balance has to be kept between the trio i.e. the victim, the accused and the society (VAS). The astrologers who predict the human destiny rely on the scientific methods and movement of stars and planet for their predictions, doctors rely on the medical report and other diagnostic techniques for analysis of the disease making science as an integral part of human existence then why law and judicial system are still in predicament to involve science completely³⁸ in their daily crime investigation process? The reliability of the forensic evidence can be ensured by-

- Promotion of research to measure the accuracy of forensic methods,
- Growing focus on forensic science education in India as there is an increase in the demand for forensic science professionals.
- Many universities are now offering specialized degrees and diplomas in forensic science, law, and criminology³⁹.

³⁰ Section 176(1), 180 (3) Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023

³¹ Section 349 Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023

³² Raj Kumar Darjee And Another vs State Of Sikkim AIR ONLINE 2019 SK 74, <https://indiankanoon.org/doc/147357731/>

³³ Manu Sharma v. State (NCT of Delhi) AIR 2010 SC 2352. <https://indiankanoon.org/doc/1515299/>

³⁴ Unnikrishnan v. State AIR 1993 SC 2178

³⁵ P Gopalkrishnan v. State of Kerala AIR 2020 SC 1

³⁶ <https://www.livelaw.in/news-updates/ph-high-court-fsl-forensic-evidence-police-negligence->

[acquittal-210003?fromIpLogin=33472.34898788413](https://innocenceproject.org/cases/steven-mark-chaney/)

³⁷ Steven Chaney case- <https://innocenceproject.org/cases/steven-mark-chaney/>

³⁸ Sexual offences or offences for which the punishment is seven years or more.

³⁹ The National Forensic Sciences University <https://www.nfsu.ac.in/>, besides this there are other colleges like Banaras Hindu University, Delhi University, AMU, Amity University Noida, Chandigarh University, LPU, Bharathiar University Coimbatore, Panjab University, University of Madras offering the course in forensic science.

- Development of best practices and standards,
- Mandatory accreditation of forensic laboratories,
- Strict quality management procedures,
- Establishing mobile forensic units.
- Training of the officials and other law enforcement agencies involved in the investigation process.

All the states of world are committed to achieve sustainable development goals by 2030 these goals are interconnected and if one goal of access to justice⁴⁰ is achieved in full then it will act as a catalyst in attaining the remaining goals thus setting peaceful and inclusive societies. Strengthening Forensic Law and evidence is need of an hour, these evidences are considered to be the most reliable and trustworthy if taken, preserved and examined tactfully and intellectually. Today number of acquittals happens due to lack of evidence especially scientific evidence which may act as a boon in finding guilt or innocence of the accused if handled properly. The Supreme Court had many times earlier and also recently underscored the significance of credible and legally acceptable evidence, particularly concerning forensic evidence such as DNA test results. The Court has also stressed the necessity of establishing the integrity and chain of custody for forensic samples. In a recent ruling, the Supreme Court overturned the convictions of murder defendants due to insufficient credible evidence linking them to the offense. Additionally, the Court has warned against relying on DNA test results without explicit information about the methodologies used by the scientific expert and the integrity of the samples.

The is now the high time to work in the direction of access to justice for all by strengthening criminal justice system with the help of strong forensic evidence and law. Honourable Apex court has consistently stressed the vital importance of having well-equipped forensic laboratories and the establishment of strong forensic legislation to guarantee effective criminal justice. The court acknowledges that forensic science plays a critical role in accurate investigations, especially in intricate cases such as cybercrimes or sexual offenses, where forensic evidence is often crucial in establishing guilt or innocence. Additionally, the court has emphasized the need

to modernize forensic facilities, implement uniform standards for evidence management, and provide training for forensic employees.

⁴⁰ <https://sdgs.un.org/goals/goal16>