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Role of Forensic Evidence under BNSS 2023: Enhancing Credibility in Criminal Investigations

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ABSTRACT

An important development in India's criminal justice system is the Bharatiya Nagarik Suraksha Sanhita (BNSS) 2023, which centers forensic evidence at the center of trustworthy and transparent investigations. This abstract illustrates how the BNSS improves the scientific rigor, reliability, and admissibility of forensic evidence in criminal cases. The requirement to gather forensic evidence and video footage at the scene of serious crimes, the expansion of sample authority, the simplification of expert testimony procedures, and the official recognition of digital and electronic evidence are some of the significant changes. The BNSS also requires the use of approved forensic labs and stringent chain of custody protocols to guarantee the legitimacy and integrity of evidence from collection to court presentation.

Keywords: BNSS, Criminal, Investigation, Forensic evidence, court

I. INTRODUCTION

The Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS), which centers forensic evidence at the core of reliable and effective criminal investigations, ushers in a new era in India's criminal justice system. The BNSS, which replaces the colonial-era Code of Criminal Procedure, implements comprehensive reforms that incorporate cutting-edge forensic science and digital technologies into each step of the legal and investigative process.² Important clauses ensure transparency and reduce the possibility of tampering or procedural errors by requiring the gathering and recording of forensic evidence at crime scenes, especially in cases of serious offenses. In keeping with the expanding significance of technology in contemporary crime identification and prosecution, the legislation further broadens the definition and admission of electronic and digital recordings. The BNSS aims to improve the integrity, credibility, and dependability of evidence presented in court by formalizing scientific protocols and building a

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² abhi, THE BHARATIYA NAGARIK SURAKSHA SANHITA, 2023: A NEW ERA OF TECHNOLOGICAL INTEGRATION IN CRIMINAL JUSTICE - The Legal Lock, (Aug. 20, 2024), <https://thelegallock.com/the-bharatiya-nagarik-suraksha-sanhita-2023-a-new-era-of-technological-integration-in-criminal-justice/> (last visited Apr 28, 2025).

strong forensic infrastructure. This will ultimately increase public confidence in the criminal justice system and facilitate the administration of prompt, equitable justice.³

II. WHAT DOES FORENSIC EVIDENCE MEAN?

Forensic science is defined as "*the application of science to those civil and criminal laws by the police interventions in a criminal justice.*"⁴ More precisely, it provides answers to legal problems and uses methods and resources to analyze crime scene evidence and apply the results to investigations. Anything that was gathered through scientific means and is acceptable in a court of law is considered forensic evidence. It is not only a tool for solving crimes; it is also crucial to the larger judicial system, helping to establish the commission of the crime, identify the offender, and clear those who have been falsely accused. DNA profiles and digital traces are just two of the many types of forensic evidence that can be found.

Beyond only solving crimes, forensic evidence is essential for connecting suspects to crime scenes, clearing innocent people, and guaranteeing prompt and equitable justice. Suspects, victims, witnesses, and crime scenes can all provide evidence. Numerous fields are included in forensic science, such as DNA analysis, digital forensics, toxicology, ballistics, and fingerprint analysis.⁵ The specialized education and abilities required for the gathering, examination, and interpretation of forensic evidence are supplied by forensic specialists and forensic labs.

III. HOW THE BNSS 2023 STRENGTHENS FORENSIC EVIDENCE'S CREDIBILITY IN CRIMINAL CASES

A number of improvements introduced by the Bharatiya Nagarik Suraksha Sanhita (BNSS) 2023 greatly improve the scientific rigor, dependability, and credibility of forensic evidence used in criminal cases in India.

➤ Required Gathering of Forensic Evidence in Serious Crimes

Forensic evidence must be gathered at crime scenes for all offenses carrying a sentence of seven years or more in prison, according to the BNSS. By limiting reliance on subjective testimony and improving the objectivity of investigations, this condition, which is stated in Section 176(3), guarantees that scientific procedures are applied methodically in serious instances.⁶

³ Ravi Sharma Jain Mahak, Revolutionising Digital Forensics: India's New Legal Frontiers, Bar and Bench - Indian Legal news (2024), <https://www.barandbench.com/columns/revolutionizing-digital-forensics-indias-new-legal-frontiers> (last visited Apr 28, 2025)

⁴ <https://quizlet.com/ca/115919683/chapter1-flash-cards/>

⁵ Forensic Science, NIST (2013), <https://www.nist.gov/forensic-science> (last visited May 1, 2025).

⁶ Impact of BNSS on Criminal Trial Procedures in India - ArticleTed - News and Articles, ArticleTed - News and Articles, <https://www.articleted.com/article/939578/335275/Impact-of-BNSS-on-Criminal-Trial-Procedures-in->

➤ **Mandatory Documentation and Videography**

The BNSS's requirement that crime scenes be videotaped during forensic investigations is a significant procedural improvement. This thorough visual record strengthens the credibility of forensic conclusions by protecting the integrity of the evidence, discouraging tampering, and giving courts an open account of the gathering procedure.⁷

➤ **Increased Capabilities for Gathering Samples**

Magistrates can now order the collection of forensic samples, such as voice and fingerprint samples, from anyone, even if they haven't been arrested yet, thanks to Section 349 of the BNSS. This adaptability guarantees the prompt and efficient collection of vital evidence, enabling exhaustive and reliable investigations.⁸

➤ **Simplified Reports and Expert Testimony**

Unless the veracity of the report is contested, the BNSS licenses the submission of systematic authorities' findings as evidence without needing their spoken testimony in court. This preserves the freedom to contest dubious reports while cutting down on procedural delays and guaranteeing that expert opinions are effectively incorporated into the legal system.

➤ **Identification of Electronic and Digital Evidence**

The BNSS expressly acknowledges the guideline and admission of digital and electronic evidence, including CCTV footages. This conformity to technical developments guarantees the utilization of contemporary investigation instruments, enhancing the precision of fact-finding and the strength of evidence presentation.⁹

IV. LEGAL FRAMEWORK UNDER BNSS, 2023

➤ **S.193(2)(I)- CHAIN OF CUSTODY FOR FORENSIC EVIDENCE¹⁰**

Section 193(2)(i) of the Bharatiya Nagarik Suraksha Sanhita (BNSS) mandates that a police report must include the chronology of custody in cases involving electronic devices. This is an essential part of establishing a clear chain of custody to ensure that electronic evidence is not

India (last visited Apr 28, 2025).

⁷ Delhi forensic lab prepares for surge in crime scene investigations under new BNSS laws, The Economic Times, Jul. 4, 2024, <https://economictimes.indiatimes.com/news/india/delhi-forensic-lab-prepares-for-surge-in-crime-scene-investigations-under-new-bnss-laws/articleshow/111482676.cms> (last visited Apr 28, 2025).

⁸ Criminal Law Bills 2023 Decoded #17: Forensic evidence, P39A Criminal Law Blog (Nov. 15, 2023), <https://p39ablog.com/2023/11/criminal-law-bills-2023-decoded-17-forensic-evidence/> (last visited Apr 28, 2025).

⁹ Digital Evidence: Effective implementation of the new criminal laws in India., <https://www.linkedin.com/pulse/digital-evidence-effective-implementation-new-criminal-brijesh-singh-sf4ce> (last visited Apr 28, 2025).

¹⁰ Bharatiya Nagarik Suraksha Sanhita, 2023, S.193

altered or tampered with during the investigation.

➤ **S.176(3)- INVOLVEMENT OF FORENSIC EXPERTS AND VIDEOGRAPHY¹¹**

The police officer in charge of a police station is required by Section 176(3) of the Bharatiya Nagarik Suraksha Sanhita (BNSS) to make sure that a forensic expert visits the crime scene to gather forensic evidence after learning of an offense carrying a sentence of seven years or more in prison. Additionally, a cell phone or other technological equipment must be used to videotape the evidence collection process.

➤ **S.105-AUDIO-VISUAL DOCUMENTATION OF SEARCH AND SEIZURE¹²**

Any audio-video electronic device, preferably a mobile phone, must be used to record the process of conducting a search or obtaining any property, article, or thing under this chapter or section 185, including creating a list of everything seized during the search and seizure and having witnesses sign the list. The police officer must promptly forward the recording to the District Magistrate, Sub-divisional Magistrate, or Judicial Magistrate of the first class.

➤ **S.329- GOVERNMENT SCIENTIFIC EXPERTS¹³**

By permitting reports from government scientific experts to be entered as evidence, Section 329 BNSS makes it easier to employ scientific evidence in court. With provisions for expert examination and delegation in circumstances of non-attendance, it guarantees that technological and forensic studies can be successfully included into the legal process.

➤ **S.497- DISPOSAL OF PROPERTY¹⁴**

The process for the detention and disposition of property presented before a court or magistrate during an investigation, inquiry, or trial is described in Section 497 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023. It gives the court the authority to determine how to manage the property until the end of the legal proceedings, including directing its sale or disposal if it is in danger of decaying quickly or is otherwise practical.

When someone is accused of a crime, they are required by BNSS *Section 52¹⁵* to be examined by a Registered Medical Practitioner at the police officer's request. If necessary, DNA profiling

¹¹ Bharatiya Nagarik Suraksha Sanhita, 2023, S.176

¹² Bharatiya Nagarik Suraksha Sanhita, 2023, S.105

¹³ Bharatiya Nagarik Suraksha Sanhita, 2023, S.329

¹⁴ Bharatiya Nagarik Suraksha Sanhita, 2023, S.497

¹⁵ Bharatiya Nagarik Suraksha Sanhita, 2023, S.52

must be included in the report that the medical expert prepares.

The examination of an arrested person by a medical officer is covered in **Section 53¹⁶**, and the arrested person or their representative is given a copy of the report. A female medical officer will perform the examination if the person who was arrested is female.

According to **Section 55¹⁷**, a police officer must give a written instruction from the officer in charge before a subordinate can make an arrest without a warrant.

A person who is arrested without a warrant is required by **Section 57¹⁸** to be taken immediately before the magistrate or the officer in charge of the police station.

The purpose of these parts is to guarantee that those involved in criminal cases particularly victims of crimes against women and children are treated fairly and protected.

The duty of the officer holding the accused to protect their health and safety is emphasized in **Section 56.¹⁹**

TYPES OF FORENSIC EVIDENCES

The Indian criminal court system uses a wide variety of forensic evidence types, including:

- **DNA evidence** is a genetic fingerprint that enables a person to be uniquely identified.
- One of the most reliable and conventional forms of forensic evidence is **fingerprint analysis**.
- **Ballistic Evidence:** Provides details on how guns were used during criminal behavior.
- The field of **digital forensics** is growing in importance as cybercrime increases. It addresses data recovery and analysis from electronic devices.
- **Toxicology** is the study of chemicals and/or poisons in bodily fluids.

The investigation and decision-making process depend on all of these forms of evidence as well as others.

V. JUDICIAL TRENDS

In **State (NCT of Delhi) v. Navjot Sandhu (2005)**, the Court considered the admissibility of electronic records and held that they could be accepted under Section 65(4) of the Indian Evidence Act without a certificate; however, this was later overturned in **Anvar PV v. PK**

¹⁶ Bharatiya Nagarik Suraksha Sanhita, 2023, S.53

¹⁷ Bharatiya Nagarik Suraksha Sanhita, 2023, S.55

¹⁸ Bharatiya Nagarik Suraksha Sanhita, 2023, S.57

¹⁹ Bharatiya Nagarik Suraksha Sanhita, 2023, S.56

Basheer (2014)²⁰, which reinstated the certificate requirement. The requirement of a certificate under Section 65B for the admissibility of electronic records was also emphasized by the Supreme Court.

Digital evidence was essential to the conviction in the **Jessica Lal murder case in Manu Sharma v. State (NCT of Delhi) (2010)**²¹, and in **Unnikrishnan v. State (2011)**, the Madras High Court ruled that, provided they comply with Section 65B of the Evidence Act, digital photographs are primary evidence and do not require negatives.

The Court upheld Anvar PV's guidelines in **K Ramajayam v. Inspector of Police (2016)** by stating that the admissibility of electronic records cannot be supported by external evidence. In the 2020 case of **P Gopalkrishnan v. State of Kerala**, the court ordered that electronic recordings stored on memory cards or pen drives be considered documents. This would allow the accused to use cloned copies for defense, while addressing privacy issues through court orders and limited access.²²

The Chain of Custody Principle in **Kishore Chand v. State of Himachal Pradesh (1991)**²³ In this landmark ruling, the Indian Supreme Court underscored the significance of maintaining a proper chain of custody for forensic evidence. The Court determined that meticulous documentation of the integrity of forensic samples from their collection at the crime scene to their presentation in court is necessary to ensure their dependability and admissibility. This concept is now further supported by the BNSS 2023, which mandates strict recording and chain of custody protocols for scientific evidence, especially in significant offenses. Judges' assessments of forensic evidence are nevertheless influenced by the case, which forbids manipulation and ensures that only trustworthy scientific findings are taken into account when making decisions.

The 2012 Nirbhaya Case: DNA Profiling as Conclusive Proof²⁴

The infamous Delhi gang rape case demonstrated the significance of forensic technology, particularly DNA profiling, in securing convictions.²⁵ Forensic experts created unquestionable evidence that accelerated the trial and conviction by matching the biological samples of the

²⁰ AIR 2015, SC 180

²¹ (2010) 6 SCC 1

²² Ravi Sharma Jain Mahak, *Revolutionising Digital Forensics: India's New Legal Frontiers*, Bar and Bench - Indian Legal news (2024), <https://www.barandbench.com/columns/revolutionizing-digital-forensics-indias-new-legal-frontiers> (last visited Apr 28, 2025).

²³ Forensics Digest, *Key Case Laws and Rules of Evidence in Forensic Science: An Indian*, Forensics Digest (2024), <https://forensicsdigest.com/key-case-laws-and-rules-of-evidence-in-forensic-science-an-indian-perspective/> (last visited Apr 28, 2025).

²⁴ (2017) 6SCC 1

²⁵ <https://papers.ssrn.com/sol3/Delivery.cfm/5069346.pdf%3Fabstractid%3D5069346%26mirid%3D1>

accused with those taken from the scene of the crime. The BNSS 2023, which mandates forensic investigation in all heinous crimes, has now formalized the use of scientific methods, like as DNA profiling, to strengthen the body of evidence in major criminal cases.

The Aarushi Talwar Murder: Insights into Forensic Practice²⁶

The benefits and drawbacks of forensic science in Indian investigations were demonstrated by this well-known case. Despite the fact that forensic pathology, DNA analysis, and fingerprint testing were used to recreate the crime, mistakes in the processing and interpretation of the data caused a significant delay.

VI. CONCLUSION

The criminal justice system in India relies on forensic evidence. It provides an unbiased and scientific basis for establishing the facts of the case, identifying the offenders, and judging a suspect's guilt or innocence. The use of forensic evidence in criminal trials promotes accountability and openness in the criminal justice system in addition to assisting in ensuring that justice is served. Even when error margins and uncertainties are recognized, the importance of forensic evidence is preserved. Instead, it improves the judicial system by ensuring that decisions are made fully cognizant of the benefits and drawbacks of the evidence at hand. In order to improve the accuracy and reliability of forensic results, minimizing these errors also requires stringent quality controls and continuous improvements in forensic techniques.

²⁶ (1984) 2 SCC 627