
CRITICAL ANALYSIS OF THE DNA TECHNOLOGY (USE AND APPLICATION) REGULATION BILL, 2019

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ABSTRACT

A paradigm shift has been brought by technological advancements in the investigation of crimes and various criminal justice system of the world. DNA profiling technology is one such method that is being successfully used to penalize the offender and exculpate the innocent. However, it is imperative to build an ecosystem for regulating the application and use of DNA profiling in order to ensure the systematic use of DNA profiling technology. Unlike India, more than 60 countries of the world have already come up with a dedicated legislation for the regulation of DNA profiling. The DNA Technology (Use and Application) Regulation Bill, 2019 has been drafted with an object to regulate the use of DNA profiling technology in India. This article analyses the Bill and suggests some proposals to reform the proposed legislation.

INTRODUCTION

The very first lesson of sociology tells us that the society is ever-changing and dynamic. This dynamic nature of society, in the modern times, has led to great advancements in the field of science and technology bearing an impact on almost each and every aspect of our social and cultural lives. It cannot be gainsaid that the crime scenario also has had its share of increased complexities and thus the adoption of certain scientific methods in the law enforcement system is very essential to make it easier to apprehend the criminals. DNA technology is one such scientific procedure which has contributed in the fight against crimes and has quickly gained its place in various justice systems of the world. DNA profiling technology is bringing dramatic evolution due to which entire forensic science is urging for rapid changes.

The Indian criminal justice system has also been greatly transformed since the introduction of DNA-based fingerprinting technology in the 1980s and has been conclusively used, not only to identify the guilty but also to exonerate the innocent(s). But, India does not have a proper and specific legislation for the use and regulation of DNA technology in India. The need for streamlining the existing laws and to bring new regulations for the better and effective use of DNA technology has been felt since a long time back. However, it was a little over 15 years after it was first conceptualized by the NDA government in 2003, that the DNA profiling Bill¹ was introduced in the Parliament. While the object of this legislation, according to the government is to merely expand the application of DNA-based technologies to strengthen and support the justice delivery, it has been criticized heavily by civil society members, opposition leaders, activists and various human rights organizations, primarily citing the ignorance of security and privacy concerns.

This paper firstly discusses in brief the concept and application of DNA technology in criminal and civil investigations including its significance and the judicial approach towards evidentiary value of DNA Profiling. In the second part of the paper, the author has dealt with the object and purpose of the DNA bill in the light of certain important provisions of the Bill. Thirdly, the author addresses the shortcomings and challenges in the implementation of this bill also focussing on certain recommendations of the Parliamentary Standing Committee on this Bill.

¹ DNA Technology (Use and Application) Regulation Bill, 2019, available at: <https://prsindia.org/billtrack/the-dna-technology-use-and-application-regulation-bill-2019>, accessed on 6th Feb, 2022.

Fourthly, the author discusses the way forward for DNA profiling in India and has provided certain suggestions and recommendations to make it more comprehensive and accountable.

The nature of research is doctrinal and both primary and secondary sources of data comprising of legislations, regulations, debates, research papers, journals, books, newspaper articles and judgments are relied upon by the author.

MEANING, CONCEPT AND APPLICATION OF DNA TECHNOLOGY

1. *What is DNA?*

There are innumerable cells in the body of human beings and these cells, in turn contains a number of components like golgi bodies, ribosomes, and almost all the cells barring red blood cells and other minor types have a fluid substance, known as nucleus. Inside the nucleus of each cell, there are 23 pairs of chromosomes. These chromosomes carry linearly arranged genetic units that are materially referred to as “*Deoxyribonucleic Acid*” or “DNA”. DNA, being the fundamental genetic material of human body cells, carries the genetic code. The structure of DNA is the factor which determines the human behaviour, character and other body characteristics².

2. *The Use of DNA technology in law*

Over the years, the importance of DNA as a legal tool has drastically changed. It renders accurate results in cases where the medical or the biological evidence is present. Each cell of the human body has identical DNA because of which DNA extracted from a crime scene can be used as a fingerprint to include or exclude suspects.³ 99.9% of human DNA is the same while only 0.1% of DNA is distinctive to every individual, except for the identical twins⁴. DNA fingerprinting³ is a forensic methodology to identify persons by analysing these unique patterns, known as *DNA profiles* within their DNA. Thus DNA fingerprinting by studying human genetic material, analyses human variability at the most basic level and has myriad

² Dr. B.R. Sharma, Forensic science in the criminal investigation and trials at 1298 (5th Ed. Universal Publishing Company, 2014).

³ Dr. Belu Gupta Arora.(2021).Effectiveness of DNA Profiling with special reference to DNA Technology (Use and Application) Regulation Bill, 2019, International Journal of Economic Perspectives,15(1),414-430 available at: <http://ijeponline.org/index.php/journal/article/view/97/120>.

⁴ Dr. V Nageswara Rao, The Indian Evidence Act, A Critical Commentary Covering Emerging Issues and International Development (2nd edn, LexisNexis 2015) 462; Mary May, ‘Next Generation Forensics: Changing the Role DNA Plays in the Justice System’ (Science in the News November 9, 2018) <<https://sitn.hms.harvard.edu/flash/2018/next-generation-forensics-changing-role-dna-plays-justice-system/>> accessed on 22nd february 2022.

advantages in criminal-investigations. For example, by comparing the DNA evidence of suspects with DNA collected from the crime-scene, persons wrongly accused or convicted for an offence can be exonerated⁵. In order to be referred in future for identification in crimes, DNA technology further involves the creation of a database wherein the profiles of offenders, convicts or suspects is stored.

3. Importance of DNA Profiling

Before this technology came into use, the whole apparatus of criminal investigation & justice system was heavily dependent upon traditional evidences like witness testimony, who would in a large number of cases turn hostile, leaving the police authorities in utter embarrassment. Subsequently, the law enforcement agencies also put to use the blood found at the crime scene(s) but blood samples didn't remain constant/usable over the longer period as compared to the DNA material which remains usable for an interminable stretch and also, it endorsed the principle of “presumption of innocence” whereby the guilt has to be established well beyond a reasonable doubt, that's the principle which almost every criminal justice system is based upon. Thus, the technology used by DNA scientists is becoming increasingly important to make sure accuracy and fairness within the criminal justice program. And this technique has proved to be very helpful not just in identification of unknown dead bodies⁶ or analyzing genetic disorders⁷ etc, but also in civil matters involving biological parental disputes⁸.

There are many significant features of DNA profiling that make it reliable, scientific and more efficient than other methods of identification, such as:

- i) The quantities of DNA required for analysis are extremely small, in nanograms and picograms;
- ii) Identification is possible from a variety of clues like blood, semen, hair roots, hair shafts, body tissues, bones etc.;

⁵ Regulation & Use of DNA profiling in India , available at : <https://qmro.qmul.ac.uk/xmlui/bitstream/handle/123456789/73940/3.%20Juyal%20Proof.pdf?sequence=3>, accessed on 3rd feb, 2022.

⁶ Special Correspondent ‘Indians Killed in Mosul: DNA Matching Done to Confirm Identity of Dead’ (The Hindu March 20, 2018), available on <https://www.thehindu.com/news/national/indians-killed-in-mosul-dna-matching-done-to-confirm-identity-of-dead/article23305451.ece>, accessed on 21st February 2022.

⁷ Keith Miller, “17 Advantages and Disadvantages of DNA Fingerprinting” (FutureofWorking.com August 12, 2019)< <https://futureofworking.com/6-advantages-and-disadvantages-of-dna-fingerprinting/>> accessed on 19th Feb, 2022.

⁸ Rohit Shekhar v. Narayan Dutt Tiwari (2012) 12 SCC 554 is one such case in India where the Apex Court upheld the order of Delhi High Court directing the respondent to undertake a DNA test for solving the paternity dispute.

- iii) DNA does not get deteriorated even if stored for very long periods of time;
- iv) An individual can be identified not only from the comparison of his own body materials containing body cells inter se, but also by the identification of his body materials containing blood cells of his blood relations: parents, sons, daughters, brothers, etc.
- v) Storage of DNA profiles in a database helps in connecting more than one crime if committed by the same person and particularly provide a clue in unsolved crimes and so on⁹.

4. Present Legal Framework in India dealing with DNA Technology

Although India unlike most of the developed countries of the world, lacks a specific legislation regulating the use and application of DNA testing in the administration of justice as of yet, the use of DNA as evidence nonetheless finds its place in a few procedural and substantive statutes. The Code of Criminal Procedure, 1973 (hereinafter referred to as CrPC) contains provisions dealing with medical examination of an accused or any person who has been arrested by a registered medical practitioner¹⁰. An explanation was added to Section 53 in 2005¹¹ which basically a legal backing to DNA Profiling as a modern and scientific technique for examination of blood, blood-stains, and other biological samples. The amendment also inserted two more sections which inter alia provide that the medical practitioner should give details of material collected from the body of the accused or the victim for DNA profiling in his report¹².

Under the Indian Evidence Act, 1872, Section 9 declares any fact which goes towards establishing the identity of a person, relevant. Thus, DNA profiling becomes relevant as expert evidence for the purpose of establishing identity on the lines of the dicta of the common law which makes admissible, evidence of those who have acquired special knowledge and expertise on any issue on which court by itself is unable to form an opinion. Section 45 of the Act incorporates the necessity of expert opinion.

⁹ Critical analysis of DNA Profiling in India: Constitutional challenges and the way ahead. http://www.revistadedreptconstitutional.ro/wp-content/uploads/1contents/2021_1/Art-05__Revista-de-drept-constitutional-nr-1-2021.pdf, accessed on 15th Feb, 2022.

¹⁰ Code of Criminal Procedure, 1973, ss 53 & 54.

¹¹ Criminal Procedure Amendment Act, 2005.

¹² Code of Criminal Procedure, 1973, ss. 53 A and 164 A.

Section 45 deals with expert opinion of persons who are especially skilled in either a foreign law, or science or identification of handwriting or finger impressions or any art and when there is an opinion to be formed by the Court on these points, the opinions of such experts are relevant facts. Under Section 112, Reliability on DNA test has been placed in ascertaining the parentage in many civil cases.

The Constitution of India also casts a duty upon citizens to develop spirit of scientific temperament, humanism and of inquiry and reform¹³, and to strive towards excellence in all spheres of individual and collective activity¹⁴. Further, Entry 65 of the List I of Schedule VII also empowers the Parliament to legislate for encouraging various technological and scientific methods for detection of crimes and speeding up investigation process.

It can be observed through the above discussion that though the present framework of laws in India do acknowledge the application and utility of DNA evidence but it does not provide any detailed framework or guidelines for the same.

5. Admissibility of DNA technology in India

The authenticity and reliability of DNA evidence can be proved by the fact that it has been universally revered as an authoritative technique equipped to distinguish and identify people. The DNA evidence persuades the courts more than any other kinds of evidence because it is a biological fact which cannot be tampered with. Except the matters involving parental disputes, where there seems to be a controversy, Indian courts have readily accepted DNA evidence. In *Sharda v. Dharmpal*¹⁵, the Apex Court ruled that a matrimonial court is empowered to order a person to undergo a medical test, and it does not violate Article 21 of the Constitution. The court further observed that adverse inferences can be drawn against the respondent when he or she refuses to submit to medical examination under the direction of the court. Further, reliance was placed on DNA evidence while confirming the death sentence of the appellant in the case of *Surendra Koli v. State of Uttar Pradesh*¹⁶.

¹³ The Constitution of India, 1950. Art. 51(h).

¹⁴ The Constitution of India, 1950. Art. 51(j).

¹⁵ AIR 2003 SC 3450. See also *Rohit Shekhar v. Narayan Dutt Tiwari* MANU/DE/3701/2010.

¹⁶ (2011) 4 SCC 80.

The Indian Supreme Court judged DNA profiling as an extremely reliable technique to compare suspect DNA with specimens collected at the crime-scene.¹⁷ The Court observed that:

“DNA evidence is being increasingly relied upon by courts. After the amendment in the Criminal Procedure Code by the insertion of Section 53A by Act 25 of 2005, DNA profiling has now become a part of the statutory scheme.³⁶ (...) DNA evidence is now a predominant forensic technique for identifying criminals (...)”¹⁸.”

In *Santhosh Kumar Singh v. State through CBI*¹⁹ famously known as *Priyadarshini Mattoo* case, too much deliberation and discussions about DNA profiling took place by the lower and upper judiciary. The Supreme Court while upholding the conviction emphasized that the opinion of an expert cannot be substituted by the Court by its own opinion, especially with respect to scientific issues such as DNA profiling which is a recent development. In *Nandlal Wasudeo Badwaik v. Lata Nandlal Wasudeo Badwaik & Anr.*²⁰ which was a maintenance suit, the Apex Court overruled the rule of presumption under Section 112 of the Indian Evidence Act. It observed that a man cannot be forced to maintain the child if the scientific tests proves contrary to the presumption of paternity. The Court argued that where there is availability of best scientific methods, the Court should not bank upon presumptions. If science has answers, those must be resorted to.

A three-judge bench of the Hon'ble Apex Court, in a landmark judgment, made a well thought out decision that where the polygraph & BEAP tests, narco-analysis and other scientific techniques are involuntarily used on a person, the result derived will be equivalent to a 'testimony' and, a breach of Article 20(3)²¹. But, later on the court in *Ritesh Sinha v. State of U.P.*²², refused to agree to the question which was raised as to whether the taking of voice test without one's consent would violate his right to self-incrimination. In this same matter, Hon'ble Justice Ranjana Desai observed that, “the taking and retention of DNA samples which are equal to a physical evidence shouldn't face any hurdles in the Indian legal scenario.”

¹⁷ *Mukesh v. State (NCT of Delhi)* (2017) 2 SCC (Cri) 673 [85].

¹⁸ Justice Bhanumati Judgment, *ibid.* para 87.

¹⁹ *Santhosh Kumar Singh v. State through CBI* (2010) 9 SCC 747.

²⁰ *Nandlal Wasudeo Badwaik v. Lata Nandlal Wasudeo Badwaik & Anr.* (2014) 2 SCC 576.

²¹ *Smt. Selvi v. State of Karnataka & Ors.* AIR 2010 SC 1974.

²² *Ritesh Sinha v. State of Uttar Pradesh*, (2013) 2 SCC 357.

DNA TECHNOLOGY (USE AND APPLICATION) REGULATION BILL, 2019

1. *Brief historical backdrop*

The idea to come up with a law for regulating the use of DNA samples related with crimes was advanced by the Department of Biotechnology in 2003. A DNA profiling advisory committee, responsible to make recommendations for drafting the bill was established by the department of biotechnology and the draft of Human DNA Profiling Bill was completed in 2007. But this Bill never got introduced in the Parliament. In January 2013, an expert committee was created by the government through the Department of Biotechnology to deliberate on concerns raised about the bill. The Bill was listed for introduction and consideration in 2016.

The Indian Law Commission in its 271st report in 2017 recommended the introduction of a specific legislation to regulate DNA Profiling in India.²³ The report recommended instituting a special DNA regulation to regulate human DNA profiling (including standards and quality controls) and restrict it only for purposes provided by law. It noted that a possible misuse of human DNA profiling is detrimental to society. Thus, it concluded that merely amending the Criminal Code would not be adequate and that special legislation to prevent such abuse was necessary. Therefore, the report recommended the DNA Profiling Bill to ensure that modern DNA Profiling technology is regulated and restricted to the purposes enumerated in law²⁴.

Thus, the DNA Technology (Use and Application) Regulation Act, 2019 (hereinafter referred to as “the bill”), was presented before the Parliament in 2019 after the law commission report.

2. *Salient Features of the Bill*

This Bill, commonly known as DNA profiling bill, was introduced in the Lok Sabha on 8th July, 2019 by Mr. Harsh Vardhan, the then Science & Technology Minister. The Bill emphasizes on the regulated and more effective use of DNA technology for identification of individuals and to create a national database for doing the same. It proposes to employ DNA fingerprinting for DVI, recognizing unknown dead bodies and offenders of specific offences listed in the Bill.

²³ Law Commission of India, Human DNA Profiling – A Draft Bill for The Use and Regulation Of DNA-Based Technology (Report No.271, 2017).

²⁴ Supra note 5.

Establishment of regulatory authorities

It aims to regulate, control and limit DNA profiling only to matters provided by the law as it seeks to establish authorities both at the Centre as well as state-level for keeping the DNA information and also to regulate what type of DNA will be required to be kept. A regulatory board is sought to be established²⁵ which will have the advisory, regulatory and supervisory statutory powers to regulate DNA Profiling, DNA laboratories and other entities under the Bill.²⁶ The Board is also responsible to ensure that confidentiality is maintained with respect to all the DNA profiles submitted and stored in the DNA Bank and Labs, and the bill provides a penalty of Rs. 1 Lakh or imprisonment of up to three years if the aforementioned confidentiality is not maintained and DNA is used without any authority²⁷. It also institutes duty over DNA laboratories to meet specified standards of quality control, infrastructure for DNA testing, security, and maintenance of DNA data records.²⁸

DNA Data Bank

Chapter V of the Bill outlays the statutory framework for DNA data banks. It prescribes to establish a national DNA data bank at the centre and regional data banks at the state level to store DNA profiles, which will be maintained by the governments of the respective jurisdictions.²⁹ These DNA data banks will maintain the indices of different categories of data³⁰. While collecting such DNA data, the authorities will have to bear following conditions/clauses/situations in mind:

- a) Firstly, if a person is convicted for an offence which is punishable for more than 7 years then no consent of the person has to be taken while collecting the data³¹.
- b) Secondly, if a person is arrested for a crime which carries punishment for less than 7 years then in that case consent of the person is required before DNA profiling can be done³².

²⁵ DNA Technology (Use and Application) Regulation Bill, 2019, Section 3.

²⁶ DNA Technology (Use and Application) Regulation Bill, 2019, Section 12.

²⁷ DNA Technology (Use and Application) Regulation Bill, 2019, Section 47.

²⁸ DNA Technology (Use and Application) Regulation Bill, 2019, Section 17.

²⁹ These banks act as a repository for all collected DNA samples. DNA Data banks are used for criminal-identification where crime-scene DNA evidence is traceable, but the suspect remains untraceable. The extracted DNA sample from crime-site is analyzed, with DNA Profiles stored in such banks.

³⁰ These DNA data banks will maintain the indices of crime scene index, suspects or offenders, missing or unknown persons.

³¹ DNA Technology (Use and Application) Regulation Bill, 2019, Section 21 (1).

³² DNA Technology (Use and Application) Regulation Bill, 2019, Section 21(1).

- c) Thirdly, if the person/s is/are the victims and/or minor/disabled then a written consent would be required³³.

But, if consent is not given in the 2nd and the 3rd case mentioned above, the authorities can approach the Magistrate who may give such orders as he may deem fit³⁴. The bill also contains a provision for removal of DNA profiles of undertrials pursuant to a court direction³⁵, those of accused upon the filing of a police report or court order and those of others upon their written request³⁶.

Use and Collection of DNA Data

The Bill limits the usage of DNA data stored in DNA banks and laboratories only for the purpose of establishing the identity of the person and for matters listed in the Bill³⁷. The provisions for protection and security of DNA profiles alongside maintenance of secrecy have been enumerated under Chapter VI of the bill. It also provides for the collection of bodily substances from persons for DNA profiling and lists other sources for collection of DNA samples³⁸.

DNA TECHNOLOGY (USE AND APPLICATION) REGULATION BILL, 2019; ANALYSIS

This bill has been formulated with an aim to regulate the use of DNA technology and to create a national DNA database for use in criminal investigation and civil matters. And it is indeed a progressive step since technological advances have made it more reliable, accurate and effective in today's world. However, this bill has certain gaps and lacks certain safeguards, some of which are dealt below:

3. *Violation of the right to privacy*

Though, the legislative instruments and courts in India validate the collection of DNA evidence from the subject in specific cases, such authorisations were commanded before recognition of the right to privacy, as a fundamental right by the Supreme Court of India. Recognition of the

³³ DNA Technology (Use and Application) Regulation Bill, 2019, Section 22(2)

³⁴ DNA Technology (Use and Application) Regulation Bill, 2019, Section 21(3).

³⁵ DNA Technology (Use and Application) Regulation Bill, 2019, Section 31(2).

³⁶ DNA Technology (Use and Application) Regulation Bill, 2019, Section 31(2) and (3).

³⁷ DNA Technology (Use and Application) Regulation Bill, 2019, Section 2(viii), s33,34 and Schedule.

³⁸ DNA Technology (Use and Application) Regulation Bill, 2019, Section 2(1)(ii) and s23(1).

right to privacy has changed the parameters concerning the admissibility of DNA evidence and extraction of DNA samples from an individual. Whenever any person gives his DNA (through bodily sample or otherwise) to another person, he virtually submits his genetic code at the receiver's disposal. Submission of one's genetic blueprint to another person plainly amounts to infringement of right to privacy. The state can deprive the right to privacy of any person by following the procedure established by law.³⁹

The Right to Privacy has been recognized by the SC as an inherent right under Article 21 of the Constitution⁴⁰. The infusion of the constitutional element to the Right to Privacy grants individual privacy with immunity from legislative majorities. Any intrusion to individual privacy would, thus infringe protection under Article 21 of the Constitution. The State has a restricted sphere to abridge into the privacy of an individual as per the constitutional standards established under the Maneka Gandhi case⁴¹. The Court ruled that law depriving a person of his 'personal liberty' has not only to stand the test of Article 21 but, also Articles 14 and 19 of the Constitution. However, the proposed bill censoriously erodes the above proposition of Constitutional Jurisprudence, imperative to deprive anyone of his personal liberty amounting to severe violation of the Right to Privacy.

4. Waiver of Fundamental Right

First of all, the Bill proposes to collect DNA from the person pursuant to his consent⁴². However, the rights under Part III of the Indian Constitution are inviolable and cannot be relinquished or waived by any individual.⁴³ Thus, a procedure for ingress into the genetic privacy of the people cannot be set by the State by basing it on an individual's consent. Thus, the legislature cannot formulate such a law whereby a person can be authorized to forego his right to privacy as well as allow the collection of his bodily sample and the retention of his DNA (an individual's biological makeup consisting his most sensitive and private information), merely through individual consent.

Moreover, it is highly unpredictable and unreasonable to expect from an ordinary person submitting bodily samples to know the future implications and usage of his consent. The Bill

³⁹ Supra Note 5.

⁴⁰ Justice KS Puttaswamy v. UOI [2017] 10. SCC 1 (SC).

⁴¹ Maneka Gandhi v. Union of India AIR 1978 SC 597.

⁴² DNA Technology (Use and Application) Regulation Bill, 2019, ss 21 and 22.

⁴³ Bhasheshwar Nath v. CIT 1959 AIR 149.

must provide a mechanism whereby an individual has the right to know how, when and where his DNA profile will be used

5. Absence of Data Protection Bill

This bill is on the lines of the Bill drafted by the law commission in its 271st report which came before the landmark judgment of Puttaswamy case⁴⁴. Therefore, this Bill was not drafted through the lens of 'right to privacy'. Thus, it becomes necessary to align the provisions of this bill with the standards laid down in the Puttaswamy judgment. In this context, it is appropriate to reiterate the notion of common legal jurisprudence that laws supplement fundamental rights through statutory frameworks. Therefore, in order to bring the privacy judgment into operation it is necessary to enact a robust Data Protection Law⁴⁵ which would establish a foundational statutory framework to protect. In relation to this, Dr. Shashi Tharoor, a Member of Parliament aptly remarked that this bill would promote surveillance state because there exists no legislation which would protect DNA Data of the subjects and it will be like putting the cart before the Horse.

Further, the right to forget is also a recognised facet of the right to privacy (the Karnataka High court recognised the limited application of this right).⁴⁶ The Delhi HC also recognized this right very recently⁴⁷. However, the Bill fails to guarantee this facet of the privacy right. Whereas, the Data Protection Bill (a proposed Bill) proposes to grant 'right to be forgotten'⁴⁸ Thus, laws that have any bearing over the right to privacy must be enacted only after a robust Data Protection Law has been enacted.

6. Unified data base

The objective of maintaining a database is identification. Section 34 under Chapter VI lays bare that the records maintained may be utilised for many things- from facilitating adjudication and prosecution in criminal matters to identification for civil matters. This is to say that if someone has rendered their DNA for a civil matter; their DNA could be used at a later stage for cross-

⁴⁴ Supra Note 40.

⁴⁵ The Personal Data Protection Bill, 2019 is a proposed legislation in the country regarding this.

⁴⁶ Sri Vasunathan v. The Registrar General [2017] SCC OnLine 424 (Kar)

⁴⁷ Jorawar Singh Mundy v. UOI W.P.(C) 3918/2021.

⁴⁸ The Personal Data Protection Bill, available at:

http://164.100.47.4/BillsTexts/LSBillTexts/Asintroduced/373_2019_LS_Eng.pdf. Accessed on 24th February, 2022.

referencing in a criminal matter.

Thus, consent given for the collection of DNA for civil matters cannot be understood to be blanket consent for identification in a criminal case.

Unified database would obscure the fine difference between guilt and innocence. It would provide for cross-referencing of DNA profiles for civil and criminal cases even without the consent, knowledge and information of the person, which indisputably amounts to self-incrimination. DNA analysis of an individual is not less than the person's submission, since it provides most intrusive information about the person, The Supreme Court had held in *Selvi v. State of Karnataka*⁴⁹ that personal autonomy is of utmost importance and any interference with it violates the right to privacy especially in circumstances where a person can face criminal charges or penalties. Thus, a possible cross-referencing of DNA profiles for civil and criminal cases even without the consent, knowledge and information of the person, which indisputably amounts to self-incrimination. DNA analysis of an individual is not less than the person's submission, since it provides most intrusive information about the person. Thus, extracting genetic information or cross-referencing the DNA profile of a person (whose genetic information was taken for a civil matter but their profile is later cross-matched for a criminal case) without their acquiescence, erodes the constitutional protection against self-incrimination under Article 20(3) of the Indian Constitution.

The threat with a crime scene index remains that it will virtually encompass every DNA profile including DNA left at the crime site before or after the crime, of people having nothing to do with the crime.

7. Compounding marginalization

As discussed above, DNA usage is not only limited to crime detection. It is an individual's unique identifier, which may leak critically sensitive and most secret information about the person without limitations or protections.¹³² For instance, access to such intrusive information could be abused to attack people based on their caste and religion, since specific caste or religious group could be wrongly associated with criminal or such other activities. It was also one of the biggest concerns raised by the Standing Committee. The data illustrates that vulnerable groups and gender & religious minorities have been disproportionately framed in

⁴⁹ AIR 2010 SC 1974.

criminal cases. An analysis by the National Crime Records Bureau in its 21st Prison Statistics⁵⁰ in India report revealed- that 55% of the undertrial prison population belongs to the Dalit, Adivasi, or the Muslim community which is shockingly disproportionate to their combined total population of 39%.

In the United States, where DNA profiling is allowed, familial searching has been responsible for aggravating racial stereotypes⁵¹ and exposing racial and ethnic minorities to discrimination at the hands of investigating authorities. The same is likely to happen in India, where the apprehension of criminals in most of the cases is targeted to people from poor socio-economic backgrounds⁵². The Bill thus can facilitate targeted prejudice and discrimination against such groups, which will have a detrimental impact on the fundamental fabrics of communal harmony; social justice; fraternity, and human dignity.

8. Retention in civil disputes

The principal objective for DNA profiling is to accelerate crime detection and improve the administration of justice in India. Therefore, the scope of DNA retention (in cases of offenders) must be restricted to only those cases with high probability of re-offending. However, the Bill proposes to store DNA of a large category of people (civil offenders; parties in a paternity dispute; civil disputes etc). It would be unreasonable to envisage that a party in these cases would commit a criminal offence. Not even an iota of this probability arises in such instances. Stating that a party to a civil dispute or others may commit a criminal act in the future and thus that their DNA profile must be stored, would be against the fundamental policy of Indian law, and defy the reasonable character of the Bill. It would seriously infringe the Right to Privacy of such people.

9. Excessive Discretion

The Bill grants extensive powers and delegates significant procedural and substantive functions to the board which ideally lie with the legislature or judicial institutions. The Supreme Court has ruled that excessive delegation of powers conferring unguided powers on the executive

⁵⁰ How caste plays out in the Criminal Justice system, available at :<https://www.newsclick.in/how-caste-plays-out-criminal-justice-system>, accessed on 13th February 2022.

⁵¹ Legal and Public Policy Issues in DNA Forensic, available at : <https://pubmed.ncbi.nlm.nih.gov/11283703/>, accessed on 19th Feb, 2022.

⁵² Death penalty in India: A cruel & Futile exercise, available at: <https://www.deccanherald.com/opinion/death-penalty-in-india-a-cruel-and-futile-exercise-804172.html>, accessed on 23rd Feb, 2022.

would violate Article 14 of the Constitution resulting, the law susceptible to being struck down⁵³ Furthermore, the Bill does not provide for any effective mechanism to ensure accountability or oversight over the functioning of a DNA Regulatory Board. However, any statute that seeks to establish a regulatory mechanism must explicate limits within which such regulation is carried out.

10. No provision for appeal

The Bill does not provide an effective and functional remedy to appeal against collection, retention and use of DNA Profile of a person. Further, the courts are prohibited from dealing with matters over which the DNA Regulatory Board is empowered to take decisions⁵⁴. However, the right to life and personal liberty confers the right to defend genetic privacy against any intrusion, when read with the Right to human dignity and the Right to privacy. Furthermore, recognition of the Right to privacy as a fundamental right under Article 21, automatically entitles individuals to approach the High Court and Supreme Court under Articles 32 and 226 of the constitution in case of any proscribed collection, retention or use of DNA Profile. The doctrine of judicial review is the basic structure of the Indian Constitution and cannot be restricted over breaches of fundamental rights.⁵⁵

CONCLUSION

The State is constitutionally bound to protect and preserve the fundamental rights guaranteed under the Constitution. To that sense, the Bill presently violates fundamental rights and the basic structure of the Indian Constitution. It threatens to fundamentally erode the fabrics of fraternity and democracy in India through the fear of genetic surveillance and state invasion into genetic privacy.

The State cannot implement reforms at the detriment of the fundamental rights of the people. In light of the promising enhancement in the justice delivery system, the DNA profiling technology has to be incorporated in a regulated and structured manner after balancing the constitutional rights of individuals and interests of the society at large. Before passing this Bill, the government should bifurcate the database into civil and criminal; the Bill should flesh out details about the civil database and ensure no cross-referencing takes place between databases.

⁵³ Subramiam Swamy v. Union of India 4 (2014) 8 SCC 682.

⁵⁴ DNA Technology (Use and Regulation) Bill 2019, s 57.

⁵⁵ Minerva Mills v. Union of India (AIR 1980 SC 1789).

The Bill causes precarious risks over unbridled ingress into the critically sensitive genetic information of people. The scope of DNA profiling shall be limited only to criminal cases before the enactment of the proposed DNA legislation. While there appears to be a convincing argument in favour of DNA databases for convicts, who, as recurrent wrongdoers, will be traceable quickly, there is no legal or moral ground for retaining DNA in other categories of the population, given the extraordinary potential for abuse.

Furthermore, the Bill must not include a crime scene index, suspect index and undertrial index. Rather, indices to be maintained must include offenders index consisting of DNA profiles of criminal offenders (subject to the nature and gravity of the crime and criminal). There appears to be no necessity of these indices in light of the existing jurisprudence on the Right to Privacy.

Moreover, there is a necessity to assess the law enforcement mechanism in India (Police and other enforcement agencies) if they are well equipped to handle this evidence. Our criminal justice system lacks both the infrastructure and the investment needed to maintain large databases. This suggests that collection of DNA samples of convicts, suspects and those arraigned for minor crimes can lead to inefficiency and inaccuracy in results. Therefore, collecting and storing DNA data *only* from crime scenes would be cost-effective and would contain data of only those persons who carry the highest risk of repeating crimes.

Most importantly, the proposed DNA Bill is premature in the absence of a data protection law. The legislature must pass a robust data protection legislation before the enactment of the proposed DNA Bill. Such legislation would be instrumental in protecting the genetic privacy of people.