

## FORENSIC USE OF DNA INFORMATION IN THE JUSTICE DELIVERY SYSTEM OF BANGLADESH: HUMAN RIGHTS AND PRIVACY CHALLENGES

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### ABSTRACT

*The advancement of DNA technology has contributed significantly to various fields. Forensic use of DNA information has great potential to assist in the delivery of justice. At the same time human rights and privacy violations that exist in relation to its usage cannot be ignored. Therefore the forensic use of the DNA information has created two major mutually-exclusive dependent yet sometimes opposing contexts — one is ensuring justice by protecting public interest and security, and the other is protecting human rights and privacy of the data subject. This article, thus, explores the implications of one of the most successful (yet not universally accepted or uncontroversial) developments of science and technology: ‘the forensic use of DNA information in the justice delivery system’. It examines the human rights and genetic privacy issues in relation to the DNA information through a case study on the National Forensic DNA Profiling Laboratory (NFDPL) of Bangladesh. The findings from the case study reveal that there are some scopes for human rights and privacy violations while using human DNA data for the justice delivery purposes, though the nature and scope of such violations differ to some extent depending upon the selected DNA facility the Article offers. It is also to be argued that forensic use of DNA information is vital for detecting criminals and exonerating the innocent; however, at the same time, such usage should not compromise human rights and privacy protection.*

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## INTRODUCTION

Continuous and successive series of technological improvements of DNA profiling and also the innovative use of increasing quantities of DNA samples and profiles for various civil (e.g. identifying disaster victims or missing persons) and criminal investigative purposes have demanded the establishment and use of forensic DNA databases. In order to meet this need, various developed and developing countries around the world have already invested in creating, developing and equipping their forensic laboratories and databases. The intention is to efficiently process and compare the DNA samples whenever necessary in order to maintain law and order and to ensure justice.

Very recently the practice of collection and use of DNA information to solve criminal cases has also begun in Bangladesh. Previously, the case investigation system, production of evidence and judicial trials were conducted and managed in Bangladesh relying on and applying mostly the traditional forensic investigation mechanisms<sup>1</sup> (such as using fingerprints, documentary as well as oral evidence, expert opinion, and evidence based on other items found at a crime scene). However, the traditional investigation system contains some problems, such as fingerprinting, oral and documentary evidence which are not error-free. Evidence can also be forged. In addition, very often law enforcement agencies discover some remnants of a human body or decomposed human bodies either with skull, some teeth, some ribs and bare bones, clothing that are stained with blood, saliva, semen and hair at the crime scene. Mostly with these items it is hard to detect accurately whether the skeleton was of a human being or not; and, if it belongs to a human

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<sup>1</sup> Forensic investigation helps to detect factual evidences and there are many subdivisions of forensic investigations. Investigators specialising in 'entomology' conduct investigative examinations of insects in any legal proceedings. But today, the term most closely associated with the investigation of untimely human death. 'Forensic Odontology' mainly involves the identification of human remains by use of dental records. Other subdivisions include 'forensic pathology', 'forensic psychiatry', 'forensic radiology', 'forensic anthropology', 'forensic geology', and 'forensic toxicology'. Investigators in all of these divisions carry out exact techniques to collect sufficient data that will be used to prove or disprove accusations of criminals. For further details see, Karagiozis, M.F. and Sgaglio, R., *Forensic Investigation Handbook: An Introduction to the Collection, Preservation, Analysis, and Presentation of Evidence*, Springfield, 2005, at pp. 7–13.

being, who that person is.<sup>2</sup> Moreover, paternity disputes, proof of relationship, rape and murder cases are also some other issues, which usually arise before the investigation department. In Bangladesh, cases remain unresolved year after year due to the lack of proper and effective investigation methods. The application of DNA testing for the case investigation process has opened a new opportunity for identifying criminals in Bangladesh.<sup>3</sup>

The National Forensic DNA Profiling Laboratory (NFDPL) is the only recognised lab for the forensic use of DNA information in the justice delivery system in Bangladesh. The research and investigation into the use of the NFDPL in the justice system of Bangladesh is highly significant. The aim of this article is to determine and evaluate the challenges faced by the developing countries like Bangladesh, as well as scrutinise how well-designed mechanisms could control misuse (in terms of human rights and privacy violations) of this kind of knowledge. The main focus of this paper is, therefore, to examine the current situation of the forensic use of DNA information in the justice delivery system of Bangladesh. The first section provides a brief introduction, which is followed by discussion about forensic use of DNA information in the justice delivery system of Bangladesh that focuses on the existing practices (that is, the process of DNA sample collection, analysis, storage and retention) as well as uses of the NFDPL. It also examines and critically analyses the *Deoxyribonucleic Acid (DNA) Act, 2010 (draft)* of Bangladesh (*'draft DNA Act'*).<sup>4</sup> The article also identifies the basic risks or challenges associated with the forensic use of DNA information in the justice delivery system of Bangladesh through an analysis of both qualitative (semi-structured interviews) and quantitative (survey) data.

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<sup>2</sup> Raza, R., "Need of A DNA Lab for Bangladesh Police", *Blitz: Comprehensive Tabloid Weekly*, at <<http://www.weeklyblitz.net/366/need-of-a-dna-lab-for-bangladesh-police>> (Last Visited on December 24, 2009)

<sup>3</sup> Staff Correspondent, "First DNA Lab Starts: A New Horizon in Solving Criminal Cases Opens Up", *The Daily Star*, January 24, 2006, at <<http://www.thedailystar.net/2006/01/24/d6012401097.htm>> (Last Visited on May 10, 2011).

<sup>4</sup> *Deoxyribonucleic Acid (DNA) Act 2010 (draft)*. For further details see, Multi-Sectoral Programme on Violence Against Women, *DNA Act, 2010: Final Draft*, at <[http://www.mspvaw.org.bd/news\\_details.php?nid=5](http://www.mspvaw.org.bd/news_details.php?nid=5)> (Last visited on November 7, 2011).