

Record Note of discussions of the Experts Committee Meeting held on 31st January 2013 at DBT, New Delhi, to discuss the potential privacy concerns on draft Human DNA Profiling Bill

Chaired by Dr. T.S. Rao

The following Members attended the meeting:

1. Dr. C. Muralikrishna Kumar, Sr. Adviser (ICT), Planning Commission, New Delhi
2. Dr. R. K. Gupta, Adviser (C&I), Planning Commission, New Delhi
3. Dr. Usha Ramanathan, Researcher & Advocate
4. Dr. Raghubir Singh, Former Secretary, Legislative Department, Ministry of Law, New Delhi
5. Shri Kamal Kumar, IPS (Retd.) Director General of Police, (Retd), Hyderabad
6. Mr. Jacob P Koshy, Science writer, Mint
7. Dr. J. Gowrishankar, Director, CDFD, Hyderabad
8. Dr. T. S. Rao, Adviser, DBT
9. Dr. Alka Sharma, Director, DBT
10. Dr. N. Madhusudan Reddy, Staff Scientist and Group Leader, CDFD, Hyderabad

1. Dr. T.S. Rao welcomed the participants and briefed them about the genesis of the meeting. He mentioned that the background papers have already been circulated to all members by Dr. Alka Sharma, and requested Dr. Gowrishankar to introduce the topics for discussion in this meeting.
2. Dr. J. Gowrishankar made a presentation about the Human DNA Profiling Bill covering the aspects about the science of DNA profiling, the need for the DNA Bill, the salient features of the Bill, the privacy concerns about the DNA Bill and the suggestions for addressing those concerns. (The printout of the PowerPoint presentation is attached herewith as **Annexure-1**). He mentioned that the DNA profile of an individual, which may simply be described as a pair of numbers at each of 17 “neutral” DNA positions, uniquely identifies the individual, his/her gender and relationship with biological relatives, but otherwise has no correlation with age, colour, race, behavioral or morphological features, and health/disease predilections.
3. He, however, mentioned that the biological samples and/or DNA stored from an individual could potentially be used/abused to determine such correlations. The criteria for retention and destruction of both DNA samples and DNA profiles varied across different countries, which he briefly listed in his presentation.
4. He further said that the major privacy-related concerns that have been voiced in relation to the Human DNA Profiling Bill may be summarized as follows:
 - a. DNA Profiling Board’s recommendations and actions: who regulates the regulator?

- b. Need for provisions to protect against misuse of DNA samples (by drawing a corollary he mentioned that such misuse can also occur with any blood sample collected for medical lab tests, hair from barber shop, etc)
 - c. Need to empower individuals :
 - (i). to seek details of their own information and samples in databases and archives and
 - (ii). to proceed against infringers which is already provided for in the Bill.
5. As regards the National DNA Data Bank, he mentioned that there are multiple concerns like:
- a. Possibility of misuse of volunteers' index, missing persons' index, etc
 - b. Offenders' index encompasses even minor crimes (eg., Motor Vehicles Act offences)
 - c. Potential for misuse of the exclusion clause for training purposes
 - d. No safeguards following release of information to international law enforcement agencies
 - e. No clarity on time period for which records will be retained in Data Bank
 - f. Suspects' index is liable to be extensively misused.
6. Dr. Gowrishankar then listed some suggestions which may be considered for overcoming the concerns:
- a. DNA Profiling Board to be required to publish, and to obtain public inputs and feedback on, its draft recommendations before finalization (it is already provided that its Regulations will be laid in Parliament)
 - b. DNA Data Bank search can only be undertaken for specific purposes after authorization by an officer of suitable seniority: crime scene sample against offenders' index; a claimant's sample against missing persons' index; or a suspect's sample against specific entries of crime scene index
 - c. Provision for empowerment of an individual's right to view his/her own information
 - d. Suspect's DNA sample for determining profile can only be taken with judicial consent (i.e., analogous to search warrant)
 - e. Creating a separate Part in the Schedule listing those crimes whose offenders alone will be included in the Data Bank
 - f. An enabling provision in the Bill that with respect to privacy issues, the statutes of the proposed Privacy Bill shall apply and override those in this Bill
 - g. Establishing criteria for destruction of DNA samples of living individuals
7. In connection with the privacy concerns on the National DNA Data bank, Dr. Gowrishankar explained that as per the provisions of the section 34(1) (4), every DNA Data Bank would maintain the following indices for different categories of data, namely:-
- (a) a crime scene index;
 - (b) a suspects' index;

- (c) an offenders' index;
- (d) a missing persons' index;
- (e) unknown deceased persons' index;
- (f) a volunteers' index; and
- (g) such other DNA indices as may be specified by regulations made by the Board.

Among the above mentioned indices, the volunteers' index (sub-clause f), is absolutely essential to calculate the statistical probability values that would be needed in judicial fora to establish that the match obtained between two DNA profiles is not by chance alone. To calculate these values, a one-time exercise is required to obtain (with informed consent) the DNA profiles of about 100 random individuals from each of the different communities in India to be stored in the National DNA Data Bank after anonymising the data and ensuring that they contain no personally identifiable information nor do they violate ethical norms. The expectation is that all the communities would be indistinguishable from each other with respect to the DNA profile number-pairs at the 17 neutral positions, but this expectation has to be necessarily validated through the data collected from the volunteers. For example, the US National Research Council, which is an authoritative body of scientific experts, has stated that "It would not be scientifically justifiable to speak of a [DNA] match as a proof of identify in the absence of underlying data that permit some reasonable estimate of how rare the matching characteristics actually are." As a further illustration, Dr. Gowrishankar mentioned that if the majority of individuals in a population had brown eyes, then eye colour could not reliably be used as a distinguishing characteristic in that population.

All other indices mentioned in the section, are to be from individuals who would be interested parties with respect to the societal value of DNA profiling as envisaged in the Bill. For example, missing persons' index and unknown deceased persons' index would be essential for identification of the unidentified bodies and of missing persons (including children) by comparing these profiles with the DNA profiles of their blood relatives, but the latter's participation in the exercise is completely voluntary and for their own benefit, without any element of enforcement or coercion. The crime scene index and suspects' index would help in linking the suspects to the scene of crime and therefore are essential for the criminal investigation purposes, but the DNA profiling of suspects would be undertaken only with judicial consent. The offenders' index is very essential for apprehending the repeat offenders (for recidivistic crimes), as has been successfully demonstrated in several developed countries.

8. Dr. Gowrishankar concluded his presentation by reiterating that the DNA profile information itself (as number-pairs from the 17 neutral positions) has very little scope of being misused since it can only establish identity

and/or biological relationship, with no value whatsoever for determining traits of an individual. On the other hand, DNA samples need to be protected from misuse, as for example has been done in the USA through the landmark Genetic Information Nondiscrimination Act 2008. A separate Act is necessary because DNA samples are available not only through the provisions of the draft DNA Profiling Bill but also from blood, saliva, urine etc collected for medical tests.

9. The Members then made their observations and discussed about the various issues, especially the privacy-related ones in the draft DNA profiling Bill.
10. Dr. C. Muralikrishna Kumar had stated that the Department of Personnel and Training, Govt. of India is preparing a draft Privacy Bill covering the various facets of privacy, which will be put up on their website. Dr. T.S. Rao would coordinate with the Planning Commission to procure a copy of the same whenever it becomes available for distribution among the various members of the Committee.
11. In response to a specific point from Dr. R.K. Gupta about what the need was for the Human DNA Profiling Bill, Dr. Gowrishankar stated that presently DNA profiling activities are already being undertaken for civil and criminal proceedings in the country, but the proposed Bill would inter alia lay down and enforce accreditation standards for DNA laboratories and regulate their activities so that the public interest is protected.
12. It was suggested that for the benefit of those Members who are attending the meeting for the first time and to have a better understanding, a short background note may be prepared and made available to the Committee members. This has been done by Dr. Madhusudan Reddy and is enclosed as **Annexure- 2**.
13. It was also decided that the previous version (year 2007) of the draft DNA Profiling Bill may be provided to all the Members to have a comparison with the changes that have been incorporated in the Bill since the first draft. (Please refer to **Annexure- 3** for the draft of the DNA Profiling Bill prepared in 2007).
14. At the suggestion of Dr. Usha Ramanathan, it was agreed to co-opt two additional Members familiar with privacy-related matters for the next meeting. She has been requested to provide the names and contact details of suitable persons who could be co-opted for the Meeting.
15. It was decided that Members would give their suggestions as to the list of applicable instances of cases/ crimes for which the DNA profiles can be entered into the DNA Data Bank, for inclusion in the revised Schedule of the draft DNA Bill 2012. It was felt that preparation of two separate lists in

the Schedule, one listing instances for DNA profiling activities in civil and criminal matters, and the other listing offences that related to the DNA Data Bank entries, would allay many of the privacy concerns that have been expressed by some of the organizations/ individuals.

16. Dr. N. Madhusudan Reddy informed the participants that other organizations are keen that DNA profiling be used to address several societal concerns and have complained that the Govt has done little so far in this regard. A Civil Writ Petition (WP) No. 499 of 2009 filed by Dr. Shamsher Malik in the Hon'ble Supreme Court of India has prayed for the Hon'ble Court to make DNA profiling of Unidentified Bodies mandatory in the Law, and the CDFD has filed a response to the same. Similarly, there is a WP filed in the Hon'ble Supreme Court by the Lokniti Foundation praying that the apex Court direct the respondents (Union Home Secretary, Govt of India and Director, Central Bureau of Investigation) to implement a scientific system of DNA profiling at the national level for cross-matching missing persons reported from different parts of the country with the unidentified dead bodies found in the various parts of the country and also for establishing the identity of the victims in mass disasters through DNA profiling. As requested by the Members, copies of these documents are attached as **Annexures 4-6** to this Record Note. The requirement of the National DNA Data Bank is absolutely essential for all these activities.
17. Prof. K. VijayRaghavan, Secretary, DBT briefly attended the meeting and stressed the point about future implications of low-cost next generation DNA sequencing technologies and the need to protect the privacy of individuals.
18. Mr. Jacob Koshy expressed his apprehensions about the potential for misuse of biological/ DNA samples, and emphasized the need to protect the information from being mined from the gene sequence perspective.
19. Dr. Raghubir Singh said that there is no Constitutional bar to the collection and analysis of biological or DNA sample for the purposes enshrined in the draft Bill and that there are sufficient safeguards which are already put in place in the draft Bill. Additional safeguards can also be incorporated, if required.
20. Dr. Usha Ramanathan mentioned that the statement of objects were not provided to her prior to his meeting and questioned the need for the DNA Data Banks. She opined that the provisions of the present draft Bill are beyond the criminal investigation and are alluding to civil disputes also. The DNA Profiling Board has been vested with excessive powers, and that the Rules and Regulations should not go beyond the scope of the parent Bill. She mentioned that she is *per se* not opposed to the DNA profiling activities envisaged in the draft Bill but was concerned about the DNA Data

Bank entries of innocent people and misuse/abuse of the provisions of the Bill.

21. In response to a statement by Dr. Usha Ramanathan that the DNA Data Bank would store DNA profiles from both civil and criminal cases, Dr. Gowrishankar explained that it was not so. The Bill will only regulate the *process* of DNA profiling in all cases both criminal and civil, but the DNA Data Bank will store profiles related mainly to criminal cases and to the applicable civil cases (such as missing children and unidentified deceased individuals) where the profiles of living relatives will be collected and stored only if they consent for the same.
22. Shri Kamal Kumar agreed with Dr. Gowrishankar's point that there are enough safeguards in the draft Bill to prevent the misuse/abuse of the biological /DNA samples or the DNA profiles or the information relating to it. He mentioned that DNA Technology may be likened to a double-edged sword, which can be used for the benefit of the society but also has the capacity to be misused/abused. He drew the analogy to the kitchen knife, and mentioned that one need not banish the knife just because it could be misused/abused by someone for inflicting injuries on others.
23. It was decided to have another meeting in the latter half of March 2013 (tentatively) to further deliberate on the privacy issues in the draft DNA Profiling Bill.
24. Finally, Dr. T.S. Rao proposed a vote of thanks and expressed his gratitude to all the members for contributing to the comprehensive and meaningful discussions and debate on the subject. He also requested their kind co-operation in ensuring that the draft Bill is finalized without much further delay.

Approved

**Sd/-
(Dr. T. S Rao)
Chairman**