

Bio-Medical Waste: Rampant Mismanagement, Lackadaisical Implementation of Legislations, Flouting of Constitutional Rights, Solutions to Tackle Effects on Ecology and Health - The Indian Scenario

Subornadeep Bhattacharjee¹

ABSTRACT. The objective of this paper is to provide a detailed study of the adverse effects of rampant mismanagement of Bio-Medical Waste² across hospitals in our country, on both human health and the environment around us. It also examines the lacunae in the existing legislations. Though the Bio-Medical Waste (Management and Handling) Rules, 1998 and its subsequent Amendments of 2000 are in place, they have regrettably existed on paper and have still not acquired a concrete manifestation.

It is of extreme importance to note that environment, development, law but most importantly human health are all inter-dependent in this era of globalization. The protection of environment has been a top-priority for the entire world ever since the Stockholm Environment Conference, in 1972. It was with great zeal that environment was placed on a pedestal of priority, never before witnessed in human history. The United Nations Conference on Environment and Development, held in June 1992, almost two decades later, was a proof that nations were striving to do their bit to ensure development in the backdrop of international environmentalism. However, it needs to be rightly understood, that mere protection and conservation of the land, air and water around us is not enough and that proper management of Bio-medical waste ensures that an individual is assured 'Right to Life', envisaged under Article 21 of our Constitution and *inter alia* Article 25(2) of the Universal Declaration of Human Rights advocating right to standard of adequate living for health and well-being of the individual including medical care, sickness and disability.

1 Student, 2nd Year, B.A., LL.B (Hons.), National Law University and Judicial Academy (NLUJA), Guwahati; The author may be reached at suborna24@nluassam.ac.in or nlujaa.sbhattacharjee@gmail.com.

2 "Bio-Medical Waste" means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or in research activities pertaining thereto or in the production of testing of biological, and including categories mentioned in Schedule; - Definition as per the Bio-Medical Waste (Management and Handling) Rules, 1998.

CONTENTS

| | |
|--|----|
| INTRODUCTION | 35 |
| FLOUTING OF CONSTITUTIONAL & HUMAN RIGHTS | 36 |
| EFFECTS ON HEALTH & ECOLOGY | 38 |
| LACKADAISICAL IMPLEMENTATION OF RULES CONCERNING MANAGEMENT AND HANDLING OF BIO-MEDICAL WASTE | 40 |
| EXAMINATION OF A FEW CASES LAWS IN THE ARENA OF BIO-MEDICAL WASTE MANAGEMENT AND HANDLING | 41 |
| SOLUTIONS TO TACKLE RAMPANT MISMANAGEMENT OF BIO-MEDICAL WASTE IN THE COUNTRY | 43 |

INTRODUCTION

The protection of environment has been a top-priority for the entire world ever since the Stockholm Environment Conference, in 1972. It was with great zeal that environment was placed on a pedestal of priority, never before witnessed in human history. The United Nations Conference on Environment and Development, held in June 1992, almost two decades later, was a proof that nations were striving to do their bit to ensure development in the backdrop of international environmentalism. It is of extreme importance to realize that environment, development, law and most importantly human health are all inter-dependent in this era of globalization.

Initially, the focus was relatively on the preservation of the water, air and land around us. However, over recent years, another important area has been discovered by the world community which needs as much attention as the protection and preservation of the air, water and land around us. This area can be referred to the safe and supervised disposal of Bio-Medical and Healthcare wastes.

Medical Science has developed through leaps and bounds worldwide; India not being an exception. However, there are two aspects to this great achievement. Whereas the great advance in medical sciences has increased the longevity of the average human being, it has subsequently led to the production of large amounts of 'Bio-Medical Waste'.³ And it is with the second aspect mentioned, that the complication arises. The production of Bio-Medical Waste had eventually needed to be disposed of. The problem arose when Bio-Medical Waste, being hazardous in nature was not being disposed of in a prescribed manner and was disposed in the same manner as general waste. General Waste is the waste generated in households, offices and outdoor locations which are not hazardous or toxic in nature. They can be either composted or recycled and reused. 'Hazardous bio-medical waste' comprises of the following types of wastes:⁴

1. Human anatomical waste (such as, tissues, organs, body parts, etc.);
2. Microbiology and bio-technology waste (such as laboratory cultures, micro-organisms, human cell cultures, toxins, etc.);
3. Waste sharps (such as hypodermics needles, syringes, scalpels, broken glass, etc.);
4. Discarded medicines and cyto-toxic drugs;
5. Soiled waste (such as, dressing bandages, plaster casts, material contaminated with blood, etc.);
6. Soiled waste (disposable items like tubes, catheters, etc. excluding sharps);

³ "Bio-Medical Waste" means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or in research activities & including categories mentioned in Schedule I of these Rules; - Rule 3(5) as per the Bio-Medical Waste (Management and Handling) Rules, 2011.

⁴ Nikos E. Mastorakis, et. al, *Environmental and health risks associated with bio-medical health management*, DEVELOPMENT, ENERGY, ENVIRONMENT, ECONOMICS, <<http://www.wseas.us/e-library/conferences/2010/Tenerife/DEEE/DEEE-47.pdf>>, (Oct. 11, 2014, 2:31 PM).

7. Liquid waste generated from any of the infected areas;
8. Animal waste (generated during research or experimentation, from veterinary hospitals, etc.);
9. Incineration ash;
10. Chemical waste.

FLOUTING OF CONSTITUTIONAL & HUMAN RIGHTS

The world recognized the importance of this new menace in the form of improper management of Bio-Medical Waste and recognized it as a category of toxic waste under the **Basel Convention on the control of Transboundary Movements of Hazardous Wastes and their Disposal**.⁵ The Convention declared that Bio-Medical and Healthcare wastes too come under its purview of toxic and hazardous wastes.⁶ India was a party to the Basel Convention, which she had duly signed on the 15th of March, 1990⁷ and subsequently ratified on 24th June, 1992.⁸ India thus, had an obligation to adhere to the resolutions of the Convention, under Article 253 of the Indian Constitution which empowers the Parliament to make laws for implementing the treaties, agreements and conventions that India has entered into at an International forum.⁹

The Government, on the other hand, *inter alia* to Ss. 6, 8 and 25 of the *Environment Protection Act, 1986* had the requisite procedure established to frame rules as to the handling, management and disposal of hazardous bio-medical waste.¹⁰ *Section 15 of the Environmental Protection Act, 1986* states that any violation or contravention under any provisions of this Act or the rules made under this Act would attract punitive action.

Thus, the Government of India framed and initiated the *Bio-Medical Waste (Management and Handling) Rules* in 1998 to control and check the proper management and disposal of Bio-Medical and Healthcare Wastes in India. These Rules were further worked upon to produce the *Bio-Medical Waste (Management and Handling) Rules* in 2011. However, this legislation has still remained on paper only and it remains to be effectively implemented across hospitals – public and private, clinics, diagnostic centres, blood banks, etc., across the country. Such has been the effect of the Rules that even though bio-medical waste is mismanaged

5 The Basel Convention was negotiated under the auspices of the United Nations Environment Programme in the late 1980s. It was adopted in 1989 and entered into force in 1992, <http://archive.basel.int/convention/bc_glance.pdf>, (Sept. 30, 2014, 2:37 PM).

6 BASEL CONVENTION SECRETARIAT, (Sept. 30, 2014, 2:37 PM), http://archive.basel.int/convention/bc_glance.pdf, pg.4.

7 BASEL CONVENTION SECRETARIAT, <<http://www.basel.int/Countries/Statusofratifications/PartiesSignatories/tabid/1290/language/en-US/Default.aspx>>, (Oct. 10, 2014, 09:05 PM).

8 *Supra* note 5.

9 INDIAN CONSTITUTION. Art. 253.

10 Section 8- No person shall handle or cause to be handled any hazardous substance except in accordance with such procedure and after complying with such safeguards as may be prescribed.

rampantly across the country, nobody has been penalized under *Section 15 of the Environmental Protection Act, 1986 mentioned above.*

What many do not realize is that improper management of Bio-Medical Waste not only has adverse impacts on human health and the environment around us, but the very act amounts to flouting of Fundamental Rights under Part III of the Indian Constitution. This Fundamental right clearly emphasizes that no individual shall be deprived of his right to life,¹¹ which also implies the right to clean environment as it is as important as the former, because the two rights are non-existent without each other.

Bio-Medical waste is still predominantly disposed of along with house-hold wastes generated on a daily basis. Now as a result of this, if the soil around us were to be polluted with hazardous and infectious Bio-medical Waste, it would end up contaminating the nutrients in the soil-a gross violation of the one of the essential Directive Principles of State Policy.

“The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.”¹²

Thus, improper disposal of Bio-Medical Waste and failure on the part of the State to regulate it, contravenes this ‘primary duty’ of the State on the following counts:

1. If infectious bio-medical waste contaminates the soil when not buried in the manner prescribed, the crops being grown on such soil would, eventually lose their nutritional value. Moreover if such contaminated crops were to reach the human metabolism, by subsequent consumption, it is a gross violation of human rights. **Article 3** and **Article 25(1)** of the Universal Declaration of Human Rights also uphold the right to life and standard of living.¹³
2. As a result, the State’s duty to raise the ‘standard of living of its people and the improvement of public health’ is jeopardized.

It ends up endangering our Fundamental right to life to a degree which has the potential to result in disastrous consequences, in terms of impact on human health and the ecology.

11 INDIAN CONSTITUTION. Art. 21.

12 INDIAN CONSTITUTION. Art.47.

13 Article 3- Everyone has the right to life, liberty and security of the person.

Article 25(1)- Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

Furthermore, it is also the duty of the State to ensure that adequate steps are taken, for the Constitution places the onus on the State, to preserve the environment and the natural resources bestowed by Mother Nature as such:

“The State shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country.”¹⁴

Now, if one were to blatantly blame the State for failing in its duties to effectively check the disposal of Bio-Medical Waste, in a prescribed manner, it should be emphasized that not only the State, but it is the duty of every individual too, in his/her capacity to ensure that Bio-Medical Wastes are disposed of in a safe and innocuous manner. This is in line with Article 51A(g) of Part IVA of our Constitution which states that:

“To protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures.”¹⁵

Thus, the responsibility lies with all the stakeholders concerned with the origin, management, transport, treatment and the disposal of Bio-medical waste: doctors, hospital staff, patients, waste handlers, rag pickers but most importantly the Bio-Medical Waste treatment officials. Since, Bio-Medical Wastes is currently predominantly disposed of along with ordinary waste produced on a day-to-day basis, the people that are easily susceptible to the ill-effects of unregulated Bio-Medical Waste and healthcare wastes are the waste handlers and the rag pickers. It is well-known that while municipal waste handlers carry out the duties by virtue of the nature of their employment, rag pickers flock the dumping yards in the hope of scavenging any material that may be of some economic value, which they can sell off in order to attain some monetary gains.

EFFECTS ON HEALTH & ECOLOGY

To lead a life with dignity and respect, health is a very integral cog in the entire process. Without health, to live a life with dignity is severely compromised. Even after the Basel Convention, there is a lot of confusion regarding the whole issue of Bio-Medical Waste management in India. The main reason can be attributed to the lack of awareness among both the stakeholders and non-stakeholders. Thus, it is the need of the hour to sensitize both classes of people as to the ill-effects of bio-medical waste on human health and the ecology.

According to the World Health Organization reports, the global life expectancy is increasing year after year.¹⁶ However, deaths due to infectious diseases are increasing.¹⁷ A study conducted by WHO in 1996, reveals that more than 50,000

14 INDIAN CONSTITUTION. art. 48A.

15 INDIAN CONSTITUTION. art. 51A, cl. g.

16 B. Ramesh Babu, et. al, *Management of Biomedical Waste in India and Other Countries: A Review*, 4 J. Int. Environmental Application & Science. 65, 69 (2009), <<http://www.jieas.com/fvolumes/vol091-1/4-1-7.pdf>>, (Sept. 18, 2014, 8:35 PM).

17 *Supra* note 15.

people die every day from infectious diseases.¹⁸ One of the major causes for the increase in infectious diseases is improper waste management.¹⁹

The general public is adversely affected by improper disposal of bio-medical wastes. Disposing of bio-medical wastes in municipal garbage dumps, water bodies or open spaces, etc. can lead to spread of diseases. Emissions from incinerators and open burning results in production of harmful gases which are responsible for causing respiratory diseases as well cancer among human beings.²⁰

Two prescribed methods for final disposal of bio-medical waste- incineration and deep burial/secured land-fill, also mentioned in the *Bio-Medical Waste (Management & Handling) Rules, 2011* if not supervised and carried out as per procedure, the consequences can be disastrous. Let us consider the ill-effects of incineration if not carried out as per the prescribed manner.

The risk involved in incineration lies in the fact that if plastic materials having the slightest amount of chlorine in its composition is incinerated, it can lead to the production of dioxin. How grievous are the effects of dioxin?

“Dioxin is a known carcinogen. Once formed, dioxin is linked to organic particles that are carried by wind, deposited on land and in water. The half-life of dioxin is estimated at 25-100 years. Dioxin binds to nuclear DNA. It acts as a potential cancer promoter, weak-delete immune response and is associated with negative effects on both human health (endometriosis, birth defects, low testosterone levels) and on environment. All these effects occur when exposed to low levels of dioxin. Incineration of biomedical waste with heavy metals content is forbidden.”²¹

Metals such as mercury, lead, etc. are termed as heavy metals. As far as the method of *deep burial/secured land-fill* is concerned, if not carried out as per prescribed methods can result in severe land pollution. Discarded and expired medicines for example, might contain traces of mercury or lead which has each and every possibility to get absorbed by plants and as a consequence, might enter the food chain. Nitrates and phosphates present in leachates from landfills are also pollutants.²² Thus, as can be perceived after the above arguments, it is easily understood that the irregular management and disposal of bio-medical waste can result in harmful chemicals and infectious disease causing pathogens to be easily transmitted through land, water and air, causing chances of spread of diseases in the context of humans, while degrading and damaging the environment around us in particular. Thus, it is as important to treat and dispose of bio-medical waste in the prescribed manner as to regulate the production of general waste in order to protect and preserve the environment around us.

18 *Id.*

19 *Id.*

20 *Id.*

21 *Supra* note 3.

22 *Supra* note 15, at 68.

LACKADAISICAL IMPLEMENTATION OF RULES CONCERNING MANAGEMENT AND HANDLING OF BIO-MEDICAL WASTE

If one were to read the provisions of the Bio-Medical (Management and Handling) Rules, 2011, the first thought that strikes is that it is an excellent piece of regulating command in the context of managing, handling and disposing toxic bio-medical waste. *Rule 2* of the above Rules states:

“These rules apply to all persons who generate, collect, receive, store, transport, treat, dispose or handle bio-medical waste in any form & shall not apply to-....”

It would be prudent to state that before imposing any rule on a rational individual, the individual would have to be enlightened as to the causality of such a rule being imposed on him. If the same analogous justification was to be applied to the Rule 2 of the above rules, the existing lacuna is staring us blatantly on the face – there is no existing programme in institutions (hospitals, veterinary clinics, diagnostic centres, blood banks, clinics, etc.) that are generating bio-medical waste across the country to sensitize the people who are delegated the duty of handling bio-medical waste, of the importance and the need to properly handle and effectively dispose of bio-medical waste. And these people cover the entire gamut of the stakeholders mentioned in Rule 2, stated above.

Furthermore, *Rules 8(1) and 8(2)* of the above Rules states:

“Untreated Bio-medical waste shall not be mixed with other wastes.”

“Bio-Medical waste shall be segregated into containers/bags at the point of generation in accordance with Schedule II.”

While the above two Rules cover the aspects of segregation of different classes of bio-medical waste and, as per the existing practice, neither the wastes are segregated in the first place, or even if they were, dumping them in the municipal dumping site along with general waste actually nullifies the task undertaken to segregate them in the first place.

What must be understood is the fact that if the average life of the human being is increasing per annum, to control the spread of diseases is of extreme importance than ever before. India now has a cluster of hospitals, clinics and diagnostic centres across various cities and towns, and to control, treat and dispose the bio-medical waste has become even more crucial than ever before. But unfortunately, though the environment in India has now become conducive for the establishment of advanced health-care institutions, the large quantities of Bio-Medical waste being produced by them are still dumped in the municipality garbage system. Very rarely, are the Bio-Medical wastes segregated at the point of generation as directed by *Schedule II of the Bio-Medical Waste (Management & Handling) Rules, 2011*. Even though the management and disposal of Bio-Medical waste is still in its nascent stage, it is the need of the hour that both the stake-holders and the non-stakeholders strive to handle bio-medical waste effectively and efficiently.

EXAMINATION OF A FEW CASES LAWS IN THE ARENA OF BIO-MEDICAL WASTE MANAGEMENT AND HANDLING

The controversial aspect of mismanagement in handling Bio-Medical Waste first came for adjudication in the landmark case of *B.L. Wadehra v. Union of India and others*.²³ An advocate approached the Supreme Court of India under Article 32 of the Constitution. He sought directions to the Municipal Corporation of Delhi (MCD) and the New Delhi Municipal Committee (NDMC) to perform their statutory duties in particular the collection, removal and disposal of garbage and other wastes.²⁴

It was put forth before the Apex Court that this act of mismanaging bio-medical waste was a gross violation of rights guaranteed to citizens under Article 21 and 48A, and 51A(g), the crucial aspects have been discussed in detail above.

“The Supreme Court keeping the view of the appalling conditions arising due to bio-medical waste disposal provided certain guidelines which are as follows:

- a. The Government of India, through Secretary, Ministry of Health, Government of national Capital Territory of Delhi through Secretary, Medical and Public Health, MCD through its Commissioner and NDMC through its Administrator to construct and install incinerators in all the hospitals and nursing homes with 50 beds and above under their administrative control. This may be done preferably within nine months. The MCD and NDMC shall issue notices to all the private hospitals and nursing homes in Delhi to make their own arrangements for the disposal of their garbage and hospital waste. They be asked to construct their incinerators.*
- b. The incinerators or alternative methods should be fitted with necessary pollution control mechanism which is approved by and is confirmed to the standards laid down by the Central Pollution Control Board.*
- c. The Central Pollution Control Board and the State Pollution Control Boards are under an obligation to send their inspection teams in different areas regularly to ascertain that the collection, transportation and disposal of garbage/hospital waste is carried out satisfactorily.²⁵*

Thus, the Supreme Court of India gave paramount importance to the prescribed methods of handling and disposal, and suggested periodic inspections by the Central and State Pollution Control Boards.

Furthermore, in another case *C.S. Prakash and others v. the HUDA and others*,²⁶ the main issue was the setting up of a hospital in a residential area. Besides noting

²³ *B.L. Wadehra v. Union of India and others*, AIR 1996 SC 2969.

²⁴ DR. RATHIN BANDOPADHYAY & DR. RAJENDRA DHAR DUBEY, AN INTRODUCTION TO ENVIRONMENTAL RIGHTS 239-250 (1st ed., 2010).

²⁵ *Id.* at 246.

²⁶ ILR (2001) AP 323, (328) (DB).

the challenges in establishing a hospital in the proximity of a residential area, a ruling given by the learned Division Bench of the Andhra Pradesh High Court also stressed on the concerns surrounding around generation, management and handling of bio-medical waste of the said hospital which is reproduced as follows:

“There cannot further be any doubt that before construction of a big hospital is permitted not only care has to be taken about the convenience of the residents of the locality but also as to whether permission from the competent authority had been taken for disposal of bio-medical waste. Prevention of ecology and health of the populace come within the purview of Article 21 of the Constitution of India. The A.P. Pollution Control Board must, therefore, strictly apply the laws governing the field, including the rules, regulations and norms issued by it in this behalf.”... “Adequate protection for disposal of bio-medical waste be taken in terms of the Bio-Medical Waste(Management and Handling) Rules, 1998.”²⁷

Unfortunately, the situation is much worse in government run hospitals as witnessed in case of *Haat Supreme Wastech Pvt. Ltd. & Ors. v. State of Haryana & Ors.*²⁸ The National Green Tribunal pulled up nine government run hospitals for neglecting the crucial factor of handling bio-medical waste in the prescribed manner. As per the orders of the Tribunal, the Director/Medical Superintendent were not prosecuted, in spite of *“persistent default on their part but in the interest of justice, environment and larger public interest, particularly keeping in mind the assurance given by the Learned Counsel appearing for these hospitals...”*²⁹

The nine hospitals that were cautioned were:

- a. AIIMS
- b. Lala Ram Swaroop Institute of Tuberculosis and Respiratory Diseases, Aurobindo Marg, New Delhi.
- c. Dr. RML Hospital
- d. Northern Railway Central Hospital, Basant Lane, New Delhi-15
- e. M/s ESI Hospital, Basai Darapur, Ring Road.
- f. Maharaja Agrasen Hospital, West Punjabi Bagh.
- g. ESI Hospital, Sector-15, Rohini.
- h. M.V.I.D. Hospital (MCD), Kingsway Camp.
- i. Dr. Baba Saheb Ambedkar Hospital, Sector-6, Rohini.

The Tribunal also observed: *“The purpose of the Application primarily is to achieve the object of environmental protection. We are of the considered view that it may not be fruitful at this stage to direct prosecution of the Director/Medical*

²⁷ DR. NANDITA ADHIKARI, LAW AND MEDICINE 196-204 (2nd ed. 2009).

²⁸ Appeal No. 63 Of 2012, Principal Bench, National Green Tribunal.

²⁹ Appeal No. 63 of 2012, Principal Bench, NATIONAL GREEN TRIBUNAL, <http://www.greentribunal.gov.in/orderinpdf/63-2012%28Ap%29_23Aug2013.pdf>, (Oct. 15, 2014, 4:29 PM).

Superintendent of all the respective hospitals, but we make it clear that remedial measures to remove the shortcomings/deficiencies pointed out by the Committee should be taken without fail at the earliest.”

Furthermore the Tribunal constituted a Committee to ensure complete compliance by the nine hospitals mentioned above so that their dealings with larger number of patients do not cause injuries to the human health and environment. As the hospitals sought more time to comply with the ruling of the Tribunal, the Committee was entrusted with the duty to inspect if *“the BMW Rules are being complied in all respects or not particularly, in relation to collection, segregation and disposal of the BMW.”*

We would be disillusioned to ignore this burning issue in the field of Environmental law any longer. If one were to examine the hospitals that were cautioned in the above case, one would be surprised to find the name of a prestigious hospital such as the AIIMS, New Delhi as well. Hence, it wouldn't be too arduous a task to state that if bio-medical waste is handled in such a lackadaisical manner in one of India's premier hospitals, one can imagine what the situation might be in hospitals across the rest of the country.

SOLUTIONS TO TACKLE RAMPANT MISMANAGEMENT OF BIO-MEDICAL WASTE IN THE COUNTRY

After having discussed the contravention of crucial Human Rights as well as Fundamental Rights, it is prudent to comprehend that the ill-effects of mismanaged bio-medical waste has the potential to harm both the human populace and the environment around us. The effects might not be visible immediately, but can eventually lead to cancer and birth defects in future generations of the human race.

Though legal awareness in the context of mismanagement and handling of Bio-medical waste is gaining ground in India, the crucial point which needs to be reiterated is the stricter implementation of the *Bio-Medical Waste (Management and Handling) Rules, 2011*. These Rules framed under the *Environmental Protection Act, 1986* need to have a much more stringent implementation, monitored regularly by the Central Pollution Control Board or State Pollution Control Boards. Surprise checks by the officials of these Boards at hospitals or any health-care centre generating bio-medical waste daily, will go a long way in checking this menace.

Furthermore, it can also be suggested that each hospital or health-care centres rendering such medical and diagnostic facilities, make it mandatory to have a workshop for those individuals who would be delegated the duty to deal with the collection, segregation and disposal of Bio-Medical Waste. Lack of awareness among such people involved in managing bio-medical waste results in the apathetic manner in which they deal with bio-medical waste. If they were sensitized about the plausible reasons as to why Bio-Medical Waste needs to be dealt with care and caution, it can be presumed that such individuals would perform their concerned duties with utmost sincerity and willingness.

This should not pose a challenge as the hospitals or any kind of health-care centre producing Bio-Medical waste on a daily basis can refer to the *Technical Guidelines on the Environmentally Sound Management of Biomedical and Healthcare Wastes*³⁰ published by the *Secretariat of the Basel Convention* under the **United Nations Environment Programme**. Paragraphs 153 & 155 of the Technical Guidelines highlight the need for a proper awareness campaign and to involve various categories of personnel.

Thus, when the international community is striving to do its bit in regard to regulating the management and disposal of bio-medical waste in the backdrop of international environmentalism, the time is right that India too, addresses this problem with renewed vigour and alacrity for as K. Park stated emphatically:

“Let the wastes of the sick not contaminate the lives of the healthy.”

30 Technical Guidelines on Environmentally Sound Management of Biomedical and Healthcare Wastes, Basel Convention, <<http://archive.basel.int/pub/techguid/tech-biomedical.pdf>>, Sept. 30, 2014, 2:35 PM).