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DISSERTATION

ON

**Effectiveness on right to occupational Safety and Health of the
medical waste management workers of Bangladesh**

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CONSENT FORM



Consent Form

The Dissertation titled “*Effectiveness on right to occupational Safety and Health of the medical waste management workers of Bangladesh*” prepared by Tanvir Ahmed Tuhin, ID: 2017-2-66-034 submitted to Nabila Farhin, Lecturer for the fulfillment of the requirements of Course 406 (Supervised Dissertation) for LL.B. (Hons.) degree offered by the Department of Law, East West University is approved for submission.

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LL. B (Hons.), Summer-17

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Declaration

I am Tanvir Ahmed Tuhin, ID: 2017-2-66-034 hereby declare that the dissertation entitled “Effectiveness on right to occupational Safety and Health of the medical waste management workers of Bangladesh” submitted towards fulfilling the requirements of Course 406 (Supervised Dissertation) for LL. B (Hons.) degree by the Department of Law, East-West University. This is my original work, and no portion of it has ever been published before. This dissertation is entirely my responsibility.

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2017-2-66-034

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Abstract

Medical wastes (MWs) have always been a big problem in the public health field. There is a specific way for hospitals and clinics to get rid of their medical waste. In light of the current worldwide pandemic, it is very important to deal with the rise in MW. Medical waste is not only dangerous, but it can also spread diseases. It kills people and it is also a big problem for the environment. So, the medical waste workers need to be properly treated before it can be thrown away. Bangladesh doesn't have a good health care system. Many hospitals, clinics, and diagnostic centers have opened up and make a lot of trash every day. Because of bad management and a lack of discipline, the medical waste from these hospitals, clinics, and diagnostic centers is dumped somewhere else without being properly treated. This is a serious threat to both the health and the environment and as well as to the MW workers who are involved with these managements. In Bangladesh, there is no supervision or guidance for the right way to deal with medical waste, and there hasn't been enough data or research done on this very important matter. Even though this is a very scary situation, the relevant authorities have not yet done anything about it. The goal of this study is to think about how important Bangladesh's rules are when it comes to medical waste managing and protecting the rights of MW workers. Also, this paper will look at the policies that are already in place and find the gaps. The paper continues to look into how Bangladesh's existing laws could be improved by developing a picture of a good system managing for getting rid of medical waste and protect the OSH rights of MW workers.

Abbreviations

MW	Medical Waste
MWM	Medical Waste Management
ILO	International Labour Organization
OSH	Occupational Safety and Health
WHO	World Health Organization
UNEP	United Nations Environment Programme
UN	United Nation
UDHR	Universal Declaration of Human Rights
ICCPR	International Convention on Civil and Political Rights
ICESCR	International Covenant on Economic and Culture Rights

**Effectiveness on right to occupational Safety and Health of the medical waste management
workers of Bangladesh**

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Effectiveness on right to occupational Safety and Health of the medical waste management workers of Bangladesh

Chapter -1:

Introduction

1.1 Background of the study:

Medical wastes (MWs), also called biomedical wastes or wastes from health care, pollute the environment around the world. This phrase means waste from a hospital, clinic, or other health care facility. The system for managing and getting rid of MWs collects and gets rid of them. Unsafe MWs cause several problems. The health risks from pollution are just the tip of the iceberg. If MW dumping isn't stopped, it puts many lives in danger. Even a small amount of dangerous health care waste that isn't handled well can hurt a lot of people.¹

The COVID-19 pandemic, which was caused by the surface contamination that led to the deadly spread of a new coronavirus, is a good example. Even though there are isolation and quarantine rules, waste workers are out on the streets every day. More waste than usual is being made by hospitals, health care facilities, and people. This waste includes masks, gloves, gowns, and other protective gear that could be infected with SARS-CoV2. Keith Alverson was worried about this growth. He said, "A lot of healthcare waste, especially waste from pandemics, is either mistreated with technologies that aren't well-maintained or isn't managed at all".² The COVID-19 pandemic is causing huge jumps in MW production, which can be bad for the environment and people's health.³ Medical waste and industrial waste can't be regulated in the same way. When it comes to industrial waste, the problem is that the wastes can be changed and their effects can be lessened. MWs are needed to protect people's lives and well-being for many years to come. For these obvious

¹ Ministry of Health and Family Welfare, Government of the Peoples' Republic of Bangladesh, Environmental Assessment and Action Plan: For the Health, Population and Nutrition Sector Development Program (HPNSDP), (February 2011)

² UNEP, Healthcare Waste: What to do with it? < <https://www.unep.org/news-and-stories/story/healthcare-waste-what-do-it> >accessed 3rd June,2022

³ UNEP, Factsheet 4 - Policy and legislation linked to COVID-19 and pandemics, (Covid-19 Waste Management Factsheet,2020)<<https://wedocs.unep.org/bitstream/handle/20.500.11822/32777/FS4.pdf?sequence=1&isAllowed=y>>accessed 1st August, 2022

and important reasons, MW management has always needed strict oversight. In the world we live in now, collecting and getting rid of MW is closely watched by both the law and organizations.

A good system for managing and processing MW also helps protect human rights. In July 2011, the Special Rapporteur of the UNHRC gave a report to the UN General Assembly about the negative effects of poor management and disposal of MW. He found that this affected the human rights of a large number of people, including medical staff, patients, support service workers, waste disposal facility workers, recyclers, scavengers, and the general public. He asked the States, international organizations and mechanisms, the donor community, public and private health care facilities, the pharmaceutical industry, and civil society to work together to improve how medical waste is handled.⁴ These rights give us control over our lives because they are based on dignity, fairness, equality, respect, and autonomy. The ways we handle waste, which affect everyone on earth and have a special connection to our basic rights. In the past few months, this has become more important because of the COVID-19 pandemic, which has spread around the world at a rate that has never been seen before. When MW disposal fails, deadly diseases like SARS CoV-2 could spread around the world and make it hard for people to live.

Now that medical technology has improved in Bangladesh, MW isn't just limited to gauges and bandages. There isn't enough scientific evidence to figure out how MW affects public health⁵. As there isn't any specific law regarding the occupational safety and health of the MW workers in our country, their rights are being violating in every sector of their workplace. The OSH of MWM is never been introduced to our country because there is no exact legal provision for these system and existing provision are not sufficient to protect the rights of MWM workers. Since our land is prone to flooding, hospital waste can easily spread with water. This can cause water-borne diseases, like diarrhea, to spread during and after flooding if MW management isn't done well.⁶Also, because HIV/AIDS is becoming more common in some communities, there is more

⁴ UNEP, Compendium of Technologies for Treatment/Destruction of Healthcare Waste, (2012) 7

⁵ Emdadul H. Syed, Mahmuda Mutahara, and Mosiur Rahman, 'Medical Waste Management (MWM) in Dhaka, Bangladesh' (2012) 24(3) HHCP p. 144
<https://www.researchgate.net/publication/254096670_Medical_Waste_Management_MWM_in_Dhaka_Bangladesh> accessed 23rd June, 2022

⁶ Ministry of Health and Family Welfare, Government of the Peoples' Republic of Bangladesh, Environmental Assessment and Action Plan: For the Health, Population and Nutrition Sector Development Program (HPNSDP), (February 2011) p17

waste that could make people sick.⁷Even with government and non-government help, very few healthcare facilities get rid of waste in a systematic way. Many people face life-threatening situations every day because of bad management. It's hard to fix MW management problems when waste management systems are already broken. It is very important to find out how a good system for managing and getting rid of medical waste can save lives.

1.2 Research question

“Whether the laws regarding occupational safety and health are adequate in protecting the rights of medical waste management workers”?

1.3 Methodology

It is an exploratory research of qualitative method. This research is an empirical research based on secondary resources. Both primary and secondary data sources are used in the analysis of this study. Primary data collected from national and international statute, policy and Secondary data has been collected from scholarly writings, documents related subject matter, newspaper, books. I also collected data from various Acts Statute Laws etc. for performing this task.

1.4 Scope

The research explored the occupational safety and health standards in MWM industry workers. There are many legislation, convention, compact and others initiative taken by the Government of Bangladesh regarding the subject matter. The object of this paper to draw the attention over legal mechanism and its implementation in terms of subject matter. I do the comparison between existing domestic laws standards and international standards. In my study, I am going to focus on

⁷ 11 ibid

The legal provisions subject to occupational safety and health in MWM industry workers of Bangladesh.

1.6 Limitations

The main problem with this research is that there aren't enough resources to do it. Also, there is no way to get access to the case laws. And there are no exact books for the topics of the research. If there are no time limits, the researcher will also get more results. There isn't enough information that is up-to-date, and four months is not enough. Maybe I did my best to move on to a new subject in this short amount of time. But there were not enough journals or articles about this subject. Even though there was no exact law that my project was based on. There are a lot of problems with this research topic as a whole.

Chapter- 2:

2.1 Medical waste Management Workers Right under International Law

Medical waste management is a significant part of our safety measurement and the developed part of the world is more conscious about it than the poor countries. Due to the pandemic situation the management regarding medical waste has improved so much and is very strict. There are some International laws, rules, principle, treaty and convention regarding the disposal of the waste management and the duty of the worker. It gives us more knowledge about the issue. International laws are the model to be followed in a sensible matter like this. We have witnessed in the corona pandemic earlier that, how crucial the waste management and these workers are for the society. Hereinafter, we are going to discuss about some International law and its direction about the discussing matter.

2.2 Universal Declaration of Human Rights (UDHR)

UDHR is the foundational document of the human rights for the world. This declaration boosts every person and society about their rights and provides teaching and education to promote respect of these rights by progressive measures. The preamble of UDHR guaranteed the human "right to life". Article (1) of the UDHR stated that all human is free and equal in dignity and rights. But the workers of the MWM Sector are not treated equally in case of the security issue. Article (2) also prescribed about "no discrimination" against anyone, this right belongs to everybody. However, there is a serious violation of this article regarding safety of workers in the MWM sector. Article (3) gives the protection about right to life, means everyone has a right to life, liberty and security. But there is no security protection to secure the life of the MWM sector workers. For that there are lots of unwanted incident happens gradually in this sector. So, there is a serious violation of UDHR. Article (7) stated that, we all are equal before law and we all should treated fairly but the workers of the MWM sector are not treated equally so far we can see. They suffer lots of problem and faces many hazardous situations which reason to causes of death or seriously disability most of the time. Article (22) talks about social security, however the workers are also

deprived from the said security too. According to section (23) there is some workers right but workers of the MWM sector are so neglected that after any hazard incident, it's really hard for them to find any job in the different workplace. They deprived of "right to work" which was guaranteed by the UDHR.

2.3 WHO and UNEP

WHO put out a manual that explains the minimum requirements for any law that regulates medical waste. This included the general rules of the law, the agencies in charge of enforcing it, rules about health-care waste producers and operators, management, treatment, and disposal procedures, and specific penalties. Later, WHO released the Core Principles⁸, which showed how important it was to manage medical waste in a way that was safe and long-lasting. As part of their duty of care, everyone who helps pay for and support health care activities is required by these principles to pay the costs of controlling health care waste. Under this document, manufacturers are also responsible for taking care of trash, when making and selling their goods and services. Bangladesh is a member of the WHO⁹. The international organization has to follow through on these ideas. Even though, with the creation of the environmental legal movement is a worldwide effort to reduce pollution. Bangladesh's government has changed a lot because the country doesn't have enough chemical resources. Medical waste policy, law, and management are all over the place in Bangladesh¹⁰. There are also legal documents that spell out the steps that must be taken to limit pollution. Because of the Medical Waste System, there is only one legal document that meets most of the criteria set by the WHO¹¹. Since the beginning of 2005, Bangladesh has been making an effort to improve the way it deals with medical waste.

⁸ WHO Core Principles for achieving safe and sustainable management of health care waste, during the International Health Care Waste meeting in Geneva on June 20 - 22, 2007
< <https://envomed.com/wpcontent/uploads/2019/09/WHO-Core-Principles-Achieving-Safe-Sustainable-HCWM.pdf>
> accessed on 20 July 2022

⁹ WHO and UNEP, National Health Care Waste Management Plan: Guidance Manual,
<<http://apps.who.int/iris/bitstream/handle/10665/43118/924154662X.pdf;jsessionid=C8A8E6E1C568F0624302647D0F5645D8?sequence=1>> accessed on 20 July 2022

¹⁰ Akhter N, Kazi NM, Chowdhury MR, Medical Waste Disposal in Dhaka City: An Environmental Evaluation (1999) ICDDR, B

¹¹ Ministry of Health and Family Welfare, Government of the Peoples' Republic of Bangladesh, Environmental Assessment and Action Plan: For the Health, Population and Nutrition Sector Development Program (HPNSDP), (February 2011)

2.4 Convention on Safety and Health at Work, 1981 (No. 155)

Occupational Safety and Health Convention, 1981 (No. 155) talks about safety and health at work and the environment where people work. It makes some suggestions about safety, health, and the environment of the workplace. According to the convention, all of the rules and regulations that it sets are safety precautions meant to cut down on accidents at work and protect the "right to life" of workers as much as possible. This convention binds the state party (the country that is correcting) to follow those standards and put them into place¹². In section 4 of the Occupational Safety and Health Convention, 1981 (No. 155) it says, Each Member shall establish, implement, and review a coherent national policy on occupational safety, occupational health, and the working environment in light of national conditions and practice and in cooperation with the most representative organizations of employers and employees. Article 5(e) of the Convention says that workers and their representatives can't be punished for doing things that are in line with the policy mentioned in Article 4 of the Convention.

2.5 International convention on Economic, Social and Cultural Rights (ICESCR)

According to this convention, everyone may enjoy his civil and political rights, as well as every individual economic, social and culture right. Article 6 of this covenant stated that, every person has the right to work. And more important, Article 7 stated that, everyone has the right to just condition of work; safe and health working condition. That means this convention also give the protection on right to work and regarding workplace safety too. Article (12) talks about standard physical and mental health but existing medical waste environment is never maintaining the standard to meet those physical or mental health particulars for the workers.

2.6 ICCPR (The international convention on civil and political rights)

The ICCPR does not provide any clear or specific provision regarding safeguard the right to health. However, several rights incorporated in the Convention are directly or indirectly linked to a

¹² ILO, Occupational Safety and Health Convention (No. 155), 1981.

person's enjoyment of his or her health. Like, right to not be subjected to torture or to cruel, inhuman or degrading treatment or punishment, no medical or scientific experiment without free consent (article 7); the right to not be slavery or servitude or compulsory labor (article 8); the right to non- discrimination (article 2, 3); right to life (article 6); right to liberty and security of person (article 9).

2.7 P155 Protocol of 2002 to the Occupational Safety and Health Convention, 1981

The Protocol was formulated in 2002 as a protocol to the ILO Occupational Safety and Health Convention 1981. This convention also talks about occupational Safety, Occupational Health and the working Environment of the workplace. Article 4 of this convention requires the all state party to follow, implement, and review a coherent national policy regards Occupational Safety, Occupational Health and working environment. And article 4 also prescribed that, the competent authority to check time to time that whether the implementation, application of this convention are doing accordingly or not.¹³

2.8 Basel convention on the control of Tran's Boundary Movements of Hazardous Waste and their Disposal (UNEP, 1992)

The Basel Convention was the first time that medical waste from hospitals, medical centers, and clinics was added to the list of dangerous wastes. wastes from making and making ready pharmaceutical products, as well as waste pharmaceuticals, medications, and medicines.¹⁴ The Basel Convention also said that hazardous substances are substances or wastes that contain living

¹³ ILO, Protocol of 2002 to the Occupational Safety and Health Convention, 1981.

¹⁴ UNEP, Annex I, Basel Convention, p. 46

<<https://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-e.pdf>> accessed on 20 July 2022

microorganisms or their toxins and are known or thought to directly cause disease in animals or people.¹⁵

2.9 Agenda 21 (plan of action for the 21st century adopted by 173 heads of State at the Earth Summit held in Rio in 1992)

Agenda 21's chapters 20, 21, and 22 are on wastes. Agenda 21, Chapter 20 discusses how to properly handle hazardous materials. It discusses reducing hazardous wastes, speeding up their disposal and recycling, and improving education programs about them. Agenda 21, Chapter 21 discusses how to properly handle solid waste and sewage. This chapter discusses how to make less waste, how to recycle and reuse waste, how to dispose of waste in an environmentally friendly way, and how to make waste services more accessible. Chapter 22 of Agenda 21 focuses on radioactive waste management. It says administrative measures must be taken to create a civilian radioactive waste management and disposal system, which people should be educated on how to manage, transport, store, and dispose of radioactive wastes to protect human health and the environment, and those steps must be taken and ways improved to ensure an integrated system.

2.10 Stockholm Convention on Persistent Organic Pollutants (UNEP, 2004)

This Convention put medical waste incinerators on a list of industrial sources that could release a lot of organic pollutants that stick around in the environment. Also, open trash burning, such as burning at a landfill, has been added to the Convention's list of other sources that can cause dioxins and furans¹⁶. So, when these international agreements were signed, it was clear that a good system for managing and processing Medical Waste was needed.

¹⁵ Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and Their Disposal was adopted on 22 March, 1989 and entered into force on 5 May, 1992, this convention currently stands to be ratified by 181 States.

¹⁶ Stockholm Convention on Persistent Organic Pollutants was adopted on 22 May 2001 and entered into force on 17 May 2004, available at: <<http://www.pops.int/>> accessed on 20 July 2022

2.11 Polluter Pays Principle

The "polluter pays" principle says that anyone who makes trash is legally and financially responsible for getting rid of it in a way that doesn't hurt the environment. This principle tries to put the blame on the person or group that causes harm. The "precautionary" rule is one of the most important rules for protecting health and safety. When it's not clear how big a risk is, it's best to assume it's there and safety and health precautions should be made based on this assumption. The "duty of care" principle says that it is everyone's moral duty to handle dangerous materials or equipment with the utmost care.

2.12 Principle of Proximity

The "Proximity" principle says that treating and getting rid of hazardous waste should be done as close to the source as possible to cut down on risks related to transportation. A similar idea says that every community should recycle or get rid of the trash it makes within its own borders. Based on the above standards, many countries made monitoring guidelines, codes of conduct, and policies for how to deal with medical waste. It may be up to National Environment Agencies or Environment Ministries to make sure the law is followed.

All of the above-mentioned laws and principles, initiatives, and conventions strive to improve the employment environment and defend the rights of medical waste workers, who are thought to be in a vulnerable position these days.

Chapter-3:

Bangladeshi Laws Related to Medical Waste Management Workers

3.1 The Constitution of Bangladesh

The Constitution of Bangladesh has some very important provisions regarding labor rights. In Article 20, it has said that work is a right, a duty and a matter of honor for every citizen who is capable of working and everyone shall be paid for his work on the basis of the principle from each according to his abilities to each according to his work. Though the provisions are included in the Fundamental Principles of State Policies but still they are the guiding star to the state organs as well as people in every respect of national life.¹⁷ Article 27, it has declared that everyone shall have equality before law. So worker status can't defeat his equal status by anyone or by any means¹⁸. Article 37 has assured the right to association.¹⁹ So the medical waste management workers also have right to establish workers union law fully. By these constitutional articles we can protect the rights of medical waste workers of Bangladesh.

3.2 The Penal Code of 1860

The penal code in Bangladesh is a complete set of laws that cover every part of a state, including how to get rid of and manage waste. "Nuisance" is defined as "unreasonable interference with the use or enjoyment of land or any other right over or in connection with causing harm to the plaintiff".²⁰ According to Section 268 of the Penal Code of 1860, "a person is guilty of a public nuisance who does any act or is guilty of an illegal omission which causes any common injury, danger, or annoyance to the public or to the people in general who dwell or occupy property in the vicinity." or which must undoubtedly cause harm, obstruction, or annoyance.²¹ Section 268 makes it clear that if waste is not thrown away properly, it will be a public nuisance. This is because improper waste management can hurt, put people in danger, or annoy them in many ways. Some

¹⁷ Article 20 The Constitution of Bangladesh

¹⁸ Article 27 at ibid

¹⁹ Article 37 at ibid

²⁰ Reserve Bank of India vs Ashish Kushum, 1996

²¹ Section 268 of the Penal Code of 1860

parts of the Penal Code have penalties for some of the effects of not managing waste well. Section 269 says, Anyone who does something illegally or carelessly that is likely to spread an infection of a life-threatening illness must be punished with imprisonment of either kind for a period of up to 6 months, a fine, or both.²²We all know that waste that isn't thrown away properly can cause diseases that spread, and people who do this are punished under sections 269 and 270. According to Section 277, anyone who knowingly pollutes the water of a public spring or tank shall be punished with either imprisonment or a fine of up to 500 taka, or both.²³Because of this, waste shouldn't be dumped in any public space or lake, which would make it useless for what it's usually used for.

3.3 The Bangladesh Environment Conservation Act of 1995

At the moment, the Environmental Conservation Act of 1995 is the most important piece of environmental law in Bangladesh. Section 2 (1) of the Environmental Conservation Act defines waste as “any liquid, solid, or radioactive substance that is discharged, disposed of, or dumped and may harm the environment.” All of these steps were very general and could be used in any kind of business. They weren't just for managing medical waste. In section 16 of the said Act, it says that if you break a rule or don't do what the law says, you could go to jail for up to 10 years or pay a fine of up to Tk.10 lac, or you could get both²⁴.

3.4 The Conservation of the Environment Rule, 1997

According to the Environment Conservation Rule, 1997, putting industrial, household, and commercial waste in a landfill is a "Red Category" activity. This means that any project to put waste in a landfill must consider the impact on the environment and get a "No Objection Certificate" (NOC).²⁵

²² Section 269 at *ibid*

²³ Section 277 at *ibid*

²⁴ The Environmental Conservation Act, S 2(1),12,16

²⁵ The Conservation of the Environment Rule,1997

3.5 DGHS-Manual for managing hospital waste, 2001

In September 2015, the Directorate General of Health Services announced an action plan to deal with problems with managing and getting rid of medical waste in Bangladeshi hospitals. In order to improve the health system in Bangladesh, the Ministry of Health and Family Welfare gave environmental problems caused by Medical Waste the most attention. This document had a detailed action plan with twelve important issues and who was responsible for doing what. A new checklist for environmental screening was also added to handle the environmental problems that come with civil works operations in the best way possible.²⁶The plan for this action plan was to end in 2016, but there was no public information about what happened after the DoE and the Directorate General of Health Services did their jobs.

3.6 The Bangladesh Labour Act, 2006

Section 54 of the Bangladesh Labour Act, 2006 provides that effective arrangements shall be made in every establishment for disposal of wastes and effluents due to manufacturing process carried on there in. But in our country we can't see waste disposal system in every establishment. Section 351 speaks prescribing those arrangements to be made in an establishment for disposal of its wastes and effluents or for requiring approval from prescribed authority for such arrangements.²⁷

3.7 Medical Waste Management and Processing Rules, 2008

Under Section 20 of the Bangladesh Environment Conservation Act of 1995, the government of Bangladesh is allowed to make more rules to protect the environment. Mismanagement of medical waste is very bad for the environment, so in 2008, the government of Bangladesh wrote a rule to set up an administrative structure in charge of managing and processing medical waste. The main job of this Rule from 2008 is to do with administration. Rule 3 sets up a "Authority" to give licenses to certain people for managing medical waste. This group of three people with authority is still in

²⁶ Ministry of Health and Family Welfare, Additional Environmental Action Plan under Health, Population and Nutrition Sector Development Programme (HPNSDP), (2015) accessed on 20 August 2022

²⁷ The Bangladesh Labour Act, S 54 and 351

charge of keeping an eye on how well licensees do. They are also in charge of collecting and spreading information about how medical wastes pollute the environment. Rule 16 also created a group called the "Advisory Committee." Its job is to look at effective ways to deal with waste and give the Government of Bangladesh advice on them. This paper not only tells how to handle medical waste well, but it also says what will happen if you don't follow the instructions. The worst punishment is simple jail time for two years or a BDT 10,000 fine.²⁸ As it was said in the last section, the 2008 Rule was made by following the general guidelines given by the WHO for writing laws about the medical waste system.

3.8 National occupational Safety and Health policy, 2013

This law was made because of the ongoing need caused by recent deaths on the job. The Policy spells out the moral and legal roles and responsibilities of the stakeholders, which include the government, employer's associations, employers and administration, worker's associations, trade unions, and laborers, among others. Again, the Policy has made it possible for a national action plan to be made so that the policy can be put into place²⁹. The Policy applies to both formal and unofficial work situations.

3.9 The National Environment Policy, 2018

When the first national environmental policy came out in 1992, it wasn't very clear how important it was to have a good system for managing medical waste. This problem has been fixed by the most recent policy. The federal government's 2018 environmental policy puts a lot of emphasis on public health and health services. It also fights to keep the environment and public health safe. The bad effects of using and doing things with radioactive materials are seen in x-rays and medical waste³⁰. It gives the Department of Family Welfare and the Department of Health the same power as the Ministry of Health.

²⁸ Rule 3 and 16 of the Medical Wastes (Management and Processing) Rules, 2008

²⁹ National occupational Safety and Health policy,2013

³⁰ National Environmental Policy, 2018, p.10

3.10 Infections and Decease Prevention Act, 2020

The act is called the Infectious Diseases (Prevention, Control and Eradication) Act. It explains what an infectious disease is and talks about what can be done to stop, control, and get rid of them in Bangladesh. There is a list of diseases that are covered by the Act in Section 4 of the Act. It says that infectious diseases include malaria, dengue fever, influenza, MERS-CoV, rabies, diarrhea, respiratory tract infections, HIV. The Act says the following about infectious diseases not exclusive. It says that this means the government can declare any new or issues that have come back, like infectious diseases, by putting a notice in the official gazette (Chapter 4).³¹ In section 18, An “adverse response to a vaccination” means any sign of illness or symptom that happens after a vaccination. In section 19 a “high-risk pathogen” is an infectious disease pathogen that the Ministry of Health and Welfare says is dangerous to public health if used for biological terrorism or accidentally released.

3.11 The National 3R Strategy for Getting Rid of Medical Waste

A national waste management policy in Bangladesh also talks about how to handle medical waste in a good way. The National 3R plan, which stands for Reduce, Reuse, and Recycle, was made by the Department of Environment to deal with the problems caused by the growing amount of waste and use of resources.³²The 3R plan has made the sector that deals with biomedical wastes, as well as municipal solid waste, industrial waste, commercial trash, and agricultural waste, a priority sector.³³In this policy, it is against the rules to recycle medical waste. This is to reduce health risks.

³¹ Infectious Diseases (Prevention, Control and Eradication) Act. 2018.< <http://bdlaws.minlaw.gov.bd/act-details1274.html?lang=en> > accessed on 28 July 2022

³² UNEP, Compendium of Technologies for Treatment/Destruction of Healthcare Waste (2012)

³³ Department of Environment, National 3R Strategy for Waste Management,<http://old.doe.gov.bd/publication_images/4_national_3r_strategy.pdf>accessed on 4 June 2022

3.12 Health, Population, and Nutrition Sector Development Programme (HPNSDP): Additional Environmental Action Plan

In September 2015, the Directorate General of Health Services announced an action plan to deal with problems with managing and getting rid of medical waste in Bangladeshi hospitals. The Ministry of Health and Family Welfare focused on the effects of the medical Waste system on the environment in order to improve health services, service delivery, and build Bangladesh's health system. This document had a detailed action plan with twelve important issues and who was responsible for doing what. A new set of criteria for environmental screening was also added so that environmental problems caused by civil works operations could be dealt with properly³⁴. The proposed schedule for this action plan was finished in 2016, but there was no public information about what happened next with the work done by the Department of Environment and the Directorate General of Health Services.

³⁴ UNEP, Compendium of Technologies for Treatment/Destruction of Healthcare Waste (2012)

Chapter-4:

Scenario of the Medical Waste Management throughout the Country

In Bangladesh, there are few laws which covers the management of the of the medical waste and its disposal. More importantly fewer of them talks about the labor who did the actual work and keeps the country clean and ensure our safety. This are one of the strongest loophole of our legislation, it's actually a suicidal if we don't have necessary rules and regulation to deal with this sensible topic. During the corona pandemic we have witnessed the importance of the rules and regulation for the workers of medical waste management and their right.

4.1 Situation of Bangladesh in terms of how medical waste was handled in Corona Pandemic

Bangladesh imposed a countrywide lockdown to curb the disease's spread. All economic activity save vital services must halt, and individuals can't travel between districts.³⁵Lack of information, experience, logistics (such separate bins, transportation facilities, or cleaner protective clothes), manpower, etc. Also laws aren't observed. This hinders Bangladesh's management and control of medical waste. Medical Waste Management was a concern in Bangladesh in Covid-19. We have witnessed that there were a few workers who does this deadly work of medical waste management as everyone was scared of their right. It was such a situation where no one was agreed to do such work at life risks. In newspaper, news article and everywhere we have seen that there was shortage of worker in every sector of the medical. No one was interested to do the vital and most important work of the waste management and disposal at that time. But some of the worker did this having the death risk and a lot of worker had died at that time doing that bravery work of waste management because when serve the nation bravest service at that particular moment. It was matter of sorrow and failure as well that our medical management doesn't have any modern equipment to dispose the waste. Even we don't have any safety measure to protect our soldier who manages

³⁵ Amin MA (2020) World environment day: medical waste prolonging Covid-19, threatening biodiversity. The DhakaTribune.Dhaka,Bangladesh.Retrievedfrom<<https://archive.dhakatribune.com/bangladesh/environment/2020/06/04/world-environment-day-friday-medical-waste-prolonging-covid-19-and-threatening-biodiversity> > accessed on 20 July 2022

the waste of medicals. Thus it costs us valuable life of the worker. At that time, the worker didn't have safety measures such as clothes, PPE, hand sanitizers, germicide spray to protect them from Corona Virus. Even, if a worker becomes corona positive they didn't get any financial or medical help from the medical authority though they did the most vital work.³⁶In addition to that, they have to clean the wastage of corona positive patients which was the most threatened part of that time. Because it will cause anyone corona positive. That time become corona positive was the scariest thing, it was like sure death.

4.2 Medical waste Management Situation in DSCC and DNCC

Waste management, especially how to deal with medical waste, is a big problem and a big worry in many places around the world, including Bangladesh. About 89,945 kg of medical waste are made every day in Bangladesh, and about 22,486 kg of this waste is very dangerous. At every level, there is a lack of awareness, concern, and knowledge about how to handle and get rid of medical waste properly. This lack of understanding can hurt everyone in many ways. Most people who work in healthcare don't know how to manage waste well. There are no waste-management facilities that are either good enough or effective. Also, there isn't a lot of money to make sure that safe hospital waste disposal works. In Dhaka City alone, there are more than 1200 hospitals, clinics, and diagnostic centers³⁷. A report from the Dhaka City Corporation (DCC) says that each person makes about 0.5 kilograms of trash every day. The same estimate says that Dhaka City makes 3,700 metric tons of trash every day, about 200 tons of which are medical waste and 40 tons of which are infectious waste.³⁸The number of medical facilities that don't handle waste properly is growing, and the amount of waste is growing every day. Because people don't really know how to separate hazardous waste from non-hazardous waste, it is hard to find accurate information about how much waste is really made each day.

³⁶ Sujan MA (2020) Untreated medical waste: a serious threat to public health. The Daily Star. Dhaka, Bangladesh. Retrieved from < <https://www.thedailystar.net/frontpage/news/untreated-medicalwaste-serious-threat-public-health-1819624> > accessed on 10 July 2022

³⁷ Secondary and Tertiary Health Care Facilities in Bangladesh 2010,(n.d)retrieve from:<<http://hospitaldghs.gov.bd/wp-content/uploads/2019/11/About-Hospital-Service-Delivery-Secondary-and-Tertiary-care-services.pdf> > accessed on 20 July 2022

³⁸ Rahman, A.K.M., (ed.), 2000, Situation Assessment and analysis of Hospital Waste Management (A Pilot Study), Line Director, Hospital Services, DGHS, Dhaka

4.3 Medical waste management situation in Khulna City Corporation

Khulna is one of the big cities in Bangladesh. Medical waste and the problems it causes are growing quickly, which is a direct result of the city's fast urbanization and population growth. Medical waste poses serious threats to the health of the environment and needs to be treated and managed in a special way before it can be thrown away. The problem is getting worse because there are more hospitals, clinics, and diagnostic laboratories in Khulna city. In 2000, the Environment and Development Associates (Prodipan) did a study in different clinics and hospitals in Khulna, Bangladesh. The goal was to come up with and show replicable models for managing hospital waste (WHO, 2000). The study's results showed that the way most clinics and hospitals got rid of waste was wrong and not good enough. The usual way to get rid of trash was to put it in the nearest Khulna City Corporation (KCC) bins or in low-lying areas nearby. Some hospitals burn dangerous waste in the open, with no way to control the air pollution or temperature. Wastes are picked up by the municipal waste collection service and taken to the place where they will be thrown away.³⁹ Most trash was thrown away in municipal dumps, along with other solid waste. The hospital staff didn't know much about how dangerous it is to handle and throw away hazardous wastes in the wrong way. Most hospital staff only knew the basics about health care and did not think it was dangerous to handle or get rid of medical waste. Hospital workers, medical professionals, and the general public did not know that hospital wastes were dangerous. None of the hospitals separated their waste. The medical staff either didn't know they needed to separate waste or didn't care about what would happen if they didn't. Because of this, mixing wastes led to contamination of parts of general waste that could be recycled and a high risk of workers being exposed at work.⁴⁰ In Khulna City, there were no hospitals with trained staff to handle and get rid of waste. Most of the people in charge didn't care about the waste disposal system. They think that putting waste in the trash cans or down the drains is enough. No hospital in the city had an environmental awareness program.

³⁹ BBS. 2003. Bangladesh Bureau of Statistics. Statistical pocket book of Bangladesh, Planning division, Ministry of Planning, Government of the People's Repub. of Bangladesh. Published at 2005. ISBN-984-508-543-1. pp.3.

⁴⁰ Alamgir, M., Chowdhury, K. H. and I-Hossain, Q. S., 2003. Management of Clinical Wastes in Khulna City. (In the Seminar on The Renewable and alternative energy sources for national development (SRRAESND 2003) 19-20 December-2003). Department of Mechanical engineering, Khulna University of Science and Technology, Bangladesh, page 146-155.

Chapter- 5:

5.1 Analysis of the Medical Waste Management Worker Rights

In 2005, WHO released a guidance handbook⁴¹ detailing the minimal requirements for MW controlling laws, including general law provisions, enforcement authorities, health-care waste producers and operators, management, treatment, and disposal methods, and fines. Later, WHO issued Core Principles⁴², which emphasizes safe and sustainable MW management. These principles urge everyone who finance and support health-care activities to cover the expenses of managing health-care waste. Manufacturers must consider waste management when developing and selling products and services under this handbook⁴³. Bangladesh must implement WHO's guidelines as a member. Despite the global push to prevent pollution, Bangladesh's environmental legal regime is fragmented due to a lack of chemical strategy and law.⁴⁴ Only one legal document meets most of the WHO's guidelines for limiting MW pollution.

Worker should be treated as a human but in practice we often see that they have to do inhuman works due to the pressure of the higher authority to which he is subordinate. As per Article 28 of our Constitution, 'It shall be a fundamental responsibility of the State to emancipate the toiling masses the peasants and workers and backward sections of the people from all forms of exploitation'⁴⁵. But the real scenario is there is discrimination on the ground of position in the office. Sometimes due to the cast or place of the birth the worker had to face a lot of discrimination. Such as they had to do out of their ranges work if a superior order them. Medical officers often use them for their personal purpose. Offices usually enjoy the full protection and safety measures but the worker didn't enjoy it in a hospital. Doctors and other stuffs enjoy free treatment but the MW worker didn't enjoy it. In addition to that socialism and freedom from exploitation are ensured by

⁴¹ WHO, Preparation of National Health-Care Waste Management Plans in Sub-Saharan Countries, available at: <https://www.who.int/water_sanitation_health/publications/healthcare-waste-guidance-manual/en/>

⁴² WHO Core Principles for achieving safe and sustainable management of health care waste, during the International Health Care Waste meeting in Geneva on June 20 - 22, 2007 <<https://apps.who.int/iris/bitstream/handle/10665/259491/WHO-FWC-WSH-17.05-eng.pdf>> accessed on 20 July 2022

⁴³ WHO and UNEP, National Health Care Waste Management Plan: Guidance Manual, <https://www.who.int/water_sanitation_health/medicalwaste...manual1.pdf> accessed on 20 July 2022

⁴⁴ Akter N, Kazi NM, Chowdhury MR, Medical Waste Disposal in Dhaka City: An Environmental Evaluation (1999) ICDDR, B

⁴⁵ Article 28 of The Constitution of Bangladesh

Article 10 of the Constitution.⁴⁶ Our main focus would be establishing a society where labour will freely enjoy their Rights and Human Rights and they will enjoy equal opportunity like others. But in our society the laborer who usually collect the MW are considered as lower class worker as well as lower class people. Their basic human rights are violated as doesn't get any pre cautionary measures before collecting the waste. A garments worker gets his safety but a MW worker doesn't get any safety measures though MW worker doing more difficult and risky job than the garments worker. In every sector, worker gets the opportunity of their Insurance or gets allowances from many sources but the MW workers doesn't get any. Moreover, emancipation of peasants and workers are ensured by Article 14 of the Constitution⁴⁷. Then, public health and morality are ensured by Article 18.⁴⁸In this point MW worker faces the most discrimination. Their work is so much risky and there is a life threat and possibilities of getting affected by various kinds of diseases but the authority doesn't ensure any safety measure for these workers. They often collect this garbage in free hand, without mask, without PPE and without face mask. Even after getting affected by disease these workers don't get any free treatment or medicine from the authority. Basically they didn't receive any better treatment. Article 19 gives the worker equality of opportunity.⁴⁹Work as a right and duty and a matter of honor under Article 20 ensured by the Constitution as Fundamental rights.⁵⁰

Principle of State policy clearly mentions that everyone shall be paid for his work based on the principle "from each according to his abilities, to each according to his work". The real scenario in our country is that workers didn't get the amount they deserve. Specially, if we look at Pandemic period the MW workers did a fantastic job but they were paid as they were paid before. Though there was a life risk and the authority didn't give them proper safety measures they have done their job. In some cases, we have seen that, workers weren't paid that. Moreover, Freedom of Association ensured by Article 38 and Freedom of Profession or Occupation established by Article 40. Prohibition of Forced Labour (Article 34) is guaranteed under the constitution.

⁴⁶ Article 10 at *ibid*

⁴⁷ Article 14 at *ibid*

⁴⁸ Article 18 at *ibid*

⁴⁹ Article 19 at *ibid*

⁵⁰ Article 20 at *ibid*

A worker is who works in any establishment or industry doing any skilled, unskilled, clerical, manual or any technical work.⁵¹ Act also mentioned that those who have decision making power or any administrative power are not under worker definition.⁵² No specific provision for the protection of MW workers is made in the Labour Act 2006. However, MW workers will be entitled to the benefits of this law because they meet the criteria for "worker" under the Labour Act. During the pandemic, MW workers did their jobs without question, but they also have some special rights. When everyone else was on vacation, only MW workers were working. Workers have the right of asking for leaves and holidays.⁵³ As the worker has casual leaves⁵⁴, sick leaves⁵⁵, Festival leaves⁵⁶ and Annual leaves⁵⁷. So, MW workers also have these kinds of leaves, but the situation was different during the pandemic. Workers have the right of weekly holiday of one and half days but the workers haven't enjoyed it on that time.⁵⁸ The health and cleanliness of people were the most valuable factors during this pandemic. Provisions of health and hygiene, safety and welfare respectively are provided in the chapter 5, 6, 7 and 8 of the Labour Act. When there is a pandemic, the person in the front line must get the most protection first. Because first the MW worker needs to be safe and healthy, and only then they can make sure the patients and other staff are safe and healthy. The most important thing for the MW worker to do was to get good health care. First, the MW worker needs to be given the PPE, the vaccine, and any other tools they need. But they didn't enjoy so. Anyone who works must get paid within the duty days. The time it takes to pay wages can't be more than one month.⁵⁹ So, according to these rules, the MW worker must also be paid. And it must be checked that the workers are getting the minimum wage. The National Minimum Wage Board sets the minimum wage, which will change every five years.⁶⁰ According to this board, a worker must make at least 1,500 taka per month, but this doesn't apply to the RMG sector.⁶¹ So, the labor act sets the wages of frontline MW workers. But there were so many cases

⁵¹ The Labour Act 2006, Article 2(65)

⁵² Managing Director, Rupali Bank Limited Vs. Md Nazrul Islam Patwary & Others (1996) [48 DLR AD 62]

⁵³ The Labour Act 2006, sections 10 and 11

⁵⁴ Ibid, section 115

⁵⁵ Ibid, section 116

⁵⁶ Ibid, section 116

⁵⁷ Ibid, section 117

⁵⁸ Ibid, section 103

⁵⁹ The Labour Act, section 122

⁶⁰ Minimum Wage Organization, International / Bangladesh

⁶¹ Ibid

of not getting wages properly or in proper time. Some reports of violence and harassment during the pandemic have surfaced relating to MW worker.

5.2 Existing Practice of Medical Waste Disposal and Violation of MW worker Rights

In hospital or clinic waste is collected using a small bowl or bin that is stored under each bed. This waste is then placed in either a huge plastic bag or a bucket made of either plastic or metal. After that, this wastage is pushed in a cart all the way to closest municipal bins where they are discarded. The bins provided by the municipality are located either on the ground of the hospital or outside the building. The waste from the operation theatre the laboratories and the kitchens of the hospital are all thrown in the same municipal bins. After that the waste is removed from the municipal bin by trucks and delivered to a location designated for landfill disposal for the final disposal step. A report called "Biomedical Waste amid Covid-19: perspectives from Bangladesh," which was published in The Lancet on August 13, 2020, says that Dhaka alone makes about 206 tons of medical waste every day.⁶² Thus the MW workers collect the wastage in hand to hand method thus there is a highest probability of getting infected into various kind of disease.

⁶² Living on medical wastes Shaheen Mollah, Md Shahnawaz, Khan Chandan The Daily Star. Dhaka, Bangladesh. Retrieved from < <https://www.thedailystar.net/supplements/news/living-medical-wastes-2120229> > accessed on 25 August 2022

Chapter-6:

Findings and Recommendations

Based on the above analysis of different laws, policies, and rules, it is clear that Bangladesh does not have a single law that covers all aspects of how to properly dispose of medical waste. Safety at work is a global concern right now. ILO set some standards regarding OSH. And some standards, policies, programs, and conventions are binding for the right countries. Bangladesh is also a witness to some agreements and has to follow the rules about safety at work. ILO standards are also put into place on a national level, and the government has done a lot to improve safety. For example, in 2013, the government of Bangladesh made 87 changes to its 2006 Labor Act. These changes were directly related to the safety standards at work. There are also a lot of legal instruments, policies, and agreements in place for the MWM industry to prevent occupational hazards of medical waste workers, which I've already talked about in my paper.

6.1 Findings

Medical waste is always a serious issue in Bangladesh and in our country there is no exact system to reduce MW waste. The research topic is based on the fact that the law is enough to protect the OSH rights of MW workers during present scenario, pandemic situation and among the city corporations in Bangladesh. In ILO, there is no exact definition of MW worker. Under WHO those who work related to the healthcare services those under the definition of MW worker. After analyzing the whole fact, there is no exact definition of MW worker in Bangladeshi law and there is no specific provision which deals with the MW disposal system. As there isn't any specific law regarding the occupational safety and health of the MW workers in our country, their rights are being violating in every sector of their workplace .MW disposal system and safety measures are not ensured by any provision of existing laws. Wages of the MW workers are not good enough as their risky task. MW worker are mostly unaware about their health and people's safety. They collect the MW and household waste altogether some of the time and that causes serious health issues. They often collect this garbage in free hand, without mask, without PPE and without face mask. Even after getting affected by disease these workers don't get any free treatment or medicine from the authority. Basically they didn't receive any better treatment. The MW worker has suffered

not only physical problems, they suffered a lot of mental pressure. Even if social stigma is one of the threatened problems of their life. Improper and inefficient waste collection of practices is liable for this existing condition. There is lack of proper body of law to take care of medical waste. They have lack of knowledge and insufficient resources of MWM. No penalty or compensation for the irregularity of the MW management are given by the authority. Lack of knowledge of the MW worker regarding the environmental issues while disposing it without any safety equipment. Law of the land has not adopted any training related provisions still now. Above all finding we can see that, still there are lots of deficiency in the MW management of Bangladesh which should be improved by dint of mentioned methods.

6.2 Recommendations

- There must be a codified law which will deal with MW workers Right, where the definition of the workers will implement and most importantly disposal of the MW will be specified.
- The Safety measures of the worker must be ensured by the medical authority.
- If a worker gets infected into disease, the treatment and the medicine of the worker must be free of cost.
- The system of the disposal of MW should be codified in that law.
- Workers family should get compensation if he sacrifices his life while doing his duty to dispose the waste.
- MW worker must be trained under Govt. medical authority.
- MW worker should work under municipal authority or city corporation rather than hospital authority.
- They should be aware of the safety measure and should know about the consequences of the lack of awareness.
- Authority should provide safety equipment's towards the workers in daily basis.
- Modern equipment should be added in present disposal system.
- Workers health insurance must be provided by the Medical Authority.
- Forceful labor should be banned from the MWM.

Conclusion

In conclusion, the MW management and processing system is like a double-edged sword. Without it, human rights are routinely violated especially when it's enforced poorly. It still leads to the fall of public health and the environment. An improper medical waste management system is dangerous not just to those who immediately involved with the disposal work as worker, but to those are in the surrounding area as well. More and more people require medical care, therefore the demand for medical institutions and nursing homes also rises. The proper authorities must act immediately to address the deficiency of MW management. The authority should have addressed the inadequacy to protect OSH rights of MW workers. With the novel coronavirus's rapid spread, it's crucial that we take precautions against contracting the virus through droplet exposure. The rapid classification of such facemasks worn by suspected coronavirus patients as medical wastes is necessary for controlling the spread of the pandemic. The mw workers OSH rights were not even fully recognized. As it must be specified that the labor law will only apply to workers in the private sector. Thus, workers need safety to do the difficult and as well as necessary work. Workers are human too. They also have their fundamental rights as a citizen of Bangladesh provided by the Constitution. Their OSH rights at work are being violated as they didn't receive any safety measure for doing such heroic work. Govt. should recognize their work and must take necessary steps to protect their right by establishing a particular Act for them.

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