ISSN 2582-0311 (Print)
ISSN 2582-0303 (Online)

Volume 2
Issue I

August 2020

VIPS STUDENT LAW REVIEW

VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES

ISO 9001:2015 Certified Institution
(Affiliated to GGSIP University & Approved by BCI & AICTE)
The Institute is NAAC Accredited 'A' Grade, recognized by UGC under section 2(f)
& NBA Accredited for MCA Programme

TABLE OF CONTENTS

S. No Title of the Paper/Author **Page No.**

1. Position of Colour Trademarks, Acceptability And Related Issues: A Comparative Analysis..... 1
Anuja Misra and Chitra Ahluwalia

2. Comparative Analysis of Corporate Governance in India and USA 18
Nikita Mittu

3. Right to Marry of Muslim Women on Divorce: An Analysis..... 39
Dr. Raghuvinder Singh and Arti Sharma

4. Syrian Refugee Crisis and its Impact on International Humanitarian Law..... 28
Jayanta Boruah

STUDENT SECTION

5. India's Call on Scientific Criminal Investigations 54
B.Yamuna Saraswathy and R.B. Rishabh

6. Copyrights in ebooks: A Tussle between DRM Technology and Principles of Copyright Law 62
Ananya Jain

7. Assimilating Intermediary Liability Regimes In India..... 74
Akanksha Badika and Pragya Mishra

8. Squinting at the Narco-Analysis and the Brain Mapping tests through 'Fluid" consent 86
Kanak Mishra

9. Changing Dimensions of Fantasy Games in India and its Legality..... 98
Akshit Bhardwaj

10. Little Red Riding Lawsuit: An Analysis into the Legality and Application of Single-Colour Trademarks in India, Highlighting the Dire Need for their Adoption with reference to Christian Louboutin S.A.S v. Abubaker and Ors. 112
Manan Katyal

11. A Shift to Inquisitorial Model: Assessing the Challenges to India's Criminal Justice System..... 132
Merrin Muhammed Ashraf

12. Analyzing the Enforceability of Force Majeure Clause in light of COVID-19 … 146
Rishabh Soni

13. Lockdown in India- A Major Setback? 156
Ananya Sanjiv Saraogi and Vallabhi Rastogi

14. Due Diligence Exercise: Demystifying the Duty of Merchant Bankers in Indian Securities Law Regime 171
Mansi Mishra

15. The Use and Misuse of Mercy Petitions: Its Growth as a Defence 186
Rupesh Sunil Dhengre and Omeshwari Pancham

16. A Surge in Domestic Violence: Manifestations of the Virus 198
Adiba Khan and Gunjan Kanoongo

17. Honour Killing: Preserving Honour or attracting Ignominy 213
Nidhi Chhillar and Ritika Sharma

18. The Biological Weapons Convention: Legal Lacunae and the way forward in light of COVID-19 223
Samavi Srivastava and Rounak Doshi

19. Marital Rape: Need for its Criminalisation in India 242
Manasvita Tejsi and Mridull Thaplu

CASE COMMENTS

20. Buyers' Cartels- Two Differing Opinions by the Competition Commission of India 258
Hartej Singh Kochher

21. Rathnayke Tharanga Lakmali v. Niroshan Abeykoon: Sri Lanka Supreme Court Recognises Custodial Death as a Violation of Right to Life..... 263
Raj Krishna and Kumar Mukul Choudhary

22. Dissecting the 100% Reservation Case: Case Analysis of Chebrolu Leela Prasad Rao v. State of A.P. 271
Jaideep Singh Lalli

THE BIOLOGICAL WEAPONS CONVENTION: LEGAL LACUNAE AND THE WAY FORWARD IN LIGHT OF COVID-19

Samavi Srivastava* and Rounak Doshi**

Abstract

Biological Weapons are weapons of mass destruction that may cause various forms of damages. The use of Biological Weapons substantially impacts a considerable population all over the world. With the advancement of technology, the need of development of a Convention which prevents the development and usage of such weapons has become an agenda of paramount importance. Efforts have been made all over the world to curb the menace of use of biological weapons, and so far, one of the most successful steps taken in this regard has been the excogitation of the Biological Weapon Convention which prohibits the production, use, and proliferation of Biological Weapons. This paper provides an insight into the recent allegations against China for manufacturing the virus that led to the COVID-19 pandemic; which constitutes a violation of the BWC. The authors will discuss in detail the salient features, working, implementation, as well as shortcomings of the Convention, and will critically assess and analyse the present global position on the said issue while stressing upon the need of certain amendments to ensure the proper functioning of the BWC.

INTRODUCTION

In today's time and age, biomedical advances have made it possible to control features of living organisms in helpful manners, prompting breakthroughs in health, the economy, farming, the life sciences, and other sectors. Research in biology and the opening of biological laboratories across the world has provided a platform for the development of vaccines and solutions to even the deadliest viruses and diseases that humankind has ever faced. Nevertheless, in times such as these, its negative repercussions cannot be overlooked. Such technological advancement is also the path to the development of biological weapons

* Student, National Law Institute University, Bhopal.
** Student, National Law Institute University, Bhopal.

that threaten international peace and human security.[1] Rapid advances in biotechnology and the proliferation of biological weapons capabilities have already posed serious threats to society by enabling the production of biological weapons with unique and unpredictable characteristics.[2] They have unprecedented rates of proliferation and are hard to trace, therefore being able to pass off as natural occurrences, making them the perfect weapons for hostility. In fact, biological weapons are considered to fall under the umbrella of "Weapons of Mass Destruction"[3] and even in *Nuclear Weapons* Advisory Opinion, the International Court of Justice has specified that the use of weapons of mass destruction tense to be a prohibited activity.[4]

The fundamental question that arises is; how do we distinguish between biology being used for peaceful purposes and harmful ends. To provide some clarity, WHO has defined biological weapons as microorganisms or toxins that are delivered and discharged intentionally to cause disease and death in people, animals, or plants.[5] Toxins refer to those poisonous products of organisms that are lifeless and incapable of reproducing themselves.[6] Further, Biological Weapons consist of two inalienable parts – a weaponized agent and a delivery mechanism.[7] The harmful or negligent use of these biological weapons can cause serious harm at the national and international levels.[8] They may cause socio-political-economic harms that are terrifying.[9]

The Biological Weapons Convention (hereinafter "BWC") is the first multilateral treaty that prohibits the development, production, stockpiling, and use[10] of biological weapons.

1 S.C. Res. 1540 (April 28, 2004).

2 Erik Frinking Et Al., *The Increasing Threat Of Biological Weapons Handle With Sufficient And Proportionate Care* 20-21 (The Hague Centre for Strategic Studies, 2017).

3 Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Reports p.226, ¶228.

4 Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. Reports p.226, ¶264.

5 *Biological Weapons,* World Health Organization, (June 18, 2019, 10:00AM) https://www.who.int/health-topics/biological-weapons#tab=tab_1.

6 Jozef Goldblat, *The Biological Weapons Convention-An Overview,* International Committee of the Red Cross, (June 18, 2019, 10:00AM) https://www.icrc.org/en/doc/resources/documents/article/other/57jnpa.htm.

7 *What are Biological and Toxin Weapon?,* Biological Weapons Convention, (June 18, 2019, 10:00AM), https://bwc1972.org/home/the-biological-weapons-convention/about-biological-weapons/.

8 Michael P. Scharf, *Clear and Present Danger: Enforcing the International Ban on Biological and Chemical Weapons Through Sanctions, Use of Force, and Criminalization,* 478 Mich. J. Int'l L. Vol. 20:447 Spring (1999).

9 Joseph P. Dudley & Michael H. Woodford, *Bioweapons, Biodiversity, and Ecocide: Potential Effects of Biological Weapons on Biological Diversity: Bioweapon disease outbreaks could cause the extinction of endangered wildlife species, the erosion of genetic diversity in domesticated plants and animals, the destruction of traditional human livelihoods, and the extirpation of indigenous cultures,* Bio Science Vol. 2 Issue 7 583 (2002).

10 U.N. BWC, 4th Review Conference, U.N. Doc. BWC/CONF.IV/9 (Dec. 6, 1996).

It bans an entire category of weapons of mass destruction (hereinafter "WMD"). After all the preparatory sessions in the United Nations' Office of Disarmament Affairs forum starting in 1969, the BWC opened for signature on April 10, 1972, and entered into force on March 26, 1975.[11] It currently has 183 states-parties.[12] Its conception was based on the acknowledgment of the dangerous nature of biological weapons.

In recent times, this discussion on biological weapons and the BWC has specifically gained a lot of relevance and importance because of COVID-19, also known as the coronavirus, a deadly disease spread by a virus through rampant human to human transmission that has brought the world to a standstill. Emanating from China,[13] it has wreaked havoc on the lives of many people. It has displaced and disrupted humankind and their activities globally. As of June 14, 2020, coronavirus has killed more than 430139 people and infected nearly 7787271 persons across the globe.[14] The virus has caused world trade to fall by around 30% and also seriously impacted cultural and sports events all around the world.[15] and[16] A lot of speculation has been made regarding the emergence of Covid-19. Various media outlets[17] have claimed that Covid-19 is a Biological Weapon artificially developed by the People's Republic of China in its high-security biochemical Wuhan lab to cause a substantial amount of harm to other nations and severely impair the global economy.

Recently on April 3 2020,[18] a complaint against the People's Republic of China before the United Nations Human Rights Council (hereinafter UNHRC) was jointly filed by

11 *Biological Weapons,* United Nations Office for Disarmament Affairs, (June 18, 2019, 10:00AM), https://www.un.org/disarmament/wmd/bio/.

12 *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, United Nations Office for Disarmament Affairs, (June 1, 2019,11:00 AM), http://disarmament.un.org/treaties/t/bwc.

13 *Rolling Updates on Coronavirus Disease (COVID-19)*, World Health Organization, (June 1, 2019, 11:00AM), https:// www.who.int /emergencies/diseases/novel-coronavirus-2019/events-as-they-happen.

14 *Covid-19 Dashboard by the Centre for Systems Science and Engineering at Johns Hopkins University,* Coronavirus Resource Centre, (May 14, 2020, 09:00AM), https://coronavirus.jhu.edu/map.html.

15 Stephen Hall, *This is how COVID-19 is affecting the world of sports,* World Economic Forum (April 9, 2020,09:00AM), https://www.weforum.org/agenda/2020/04/sports-covid19-coronavirus-excersise-specators-media-coverage/.

16 *Trade set to plunge as COVID-19 pandemic upends global economy,* World Trade Organization (April 8, 2020, 09:00PM), https://www.wto.org/english/news_e/pres20_e/pr855_e.htm.

17 Sandhya Sharma, *Coronavirus is a bio-weapon experiment gone wrong, suspect global experts,* ET Prime (February 11, 2020,09:00PM), https://prime.economictimes.indiatimes.com/news/74068009/economy-and-policy/coronavirus-is-a-bio-weapon-experiment-gone-wrong-suspect-global-experts%20dated%20February%2011,%202020;%20https://www.news18.com/news/opinion/biological-weapons-and-biosecurity-lessons-from-the-covid-19-war-2615103.html; *$20 trillion lawsuit in US against.*

18 Dr. Adish C Aggarwala, *Complaint to the United Nations Human Rights Council, Geneva* (April 3, 2020,09:00AM), https://www.livelaw.in/pdf_upload/pdf_upload-372096.pdf.

the International Council of Jurists and All India Bar Association for the violations of International Human Rights and Serious Violations of International Humanitarian Laws. The complaint places its focus on the conjecture that COVID-19 is a carefully assembled biological weapon, aimed at crippling major countries in the world leaving only China as the beneficiary.[19] Moreover, on April 21 2020, a petition against the People's Republic of China for using the biological weapon was filed by the Attorney-General of the State of Missouri in the United States District Court for the Eastern District of Missouri Southeastern Division.[20]

Further analysis of this accusation and the relevance of the BWC forms the crux of this paper. It has been broadly divided into four parts- the history and status quo of the BWC, the legal lacunae and loopholes that persist within the BWC, past-allegations of non-compliance, and suggested solutions and changes which could be incorporated by the BWC.

History and Status of the Biological Weapons Convention

The usage of biology for the advancement of weapons made for hostile purposes or armed conflict was discovered by mankind many years ago, as early as the 12th century AD. Biological toxins have historically been used as destructive forces against armies as can be seen in instances such as of the year 1155 when the Roman Empire used human bodies to poison water wells in Italy during the battle of Tortona, 1495 when the Spaniards mixed wine with the blood of patients suffering from leprosy to sell to their French enemies, or more recently in 1863 when Confederates, or British forces, sold clothes of patients suffering from yellow fever and smallpox to troops in the United States.[21] In modern times, during the first World War, many countries initiated the development of biological weapons on a military scale, and allegations were made that Germany infected horses that were being shipped to the Allied powers with anthrax or glanders, thereby making use of biological toxins.[22]

19 Dr. Adish C Aggarwala, *Complaint to the United Nations Human Rights Council, Geneva* para 5, p. 25 (April 3, 2020,11:00 AM), https://www.livelaw.in/pdf_upload/pdf_upload-372096.pdf.

20 The State of Missouri v. The People's Republic of China, 1:20-cv-00099-SNLJ, (Jun. 19, 2020, 09:00AM), https://www.courthousenews.com/wp-content/uploads/2020/04/missouri-china.pdf.

21 Stefan Riedal, *Biological Warfare and Bioterrorism: A Historical View*, National Center for Biotechnology Information, (Jun. 19, 2020, 09:00 AM), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200679/.

22 Jamie Bisher, *Anthrax sabotage in Finland or Baron Von Rosen's sugar-coated anthrax weapon,* Military History, (Jun. 19, 2020, 09:00 AM), http://www.geocities.ws/jamie_bisher/anthrax.htm.

Subsequently, the dangers of using biological weapons became abundantly clear to the international community. In order to ameliorate the situation, the League of Nations drew up a protocol that prohibited the use of chemical and biological weapons in warfare, and it was signed by member States at a conference held in Geneva in 1925. Being brought into force in 1928, it came to be called the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare[23], or more commonly, the Geneva Protocol. However, the shortcomings of the Protocol were inescapable as many countries, especially the major powers such as the United Kingdom, France, and the Soviet Union, reserved the right to legally use such weapons in retaliation.[24] Further, there was no mention of the production or storage of such weapons in the Protocol, thereby allowing countries to accumulate large quantities of biological and chemical agents.

The adoption of the Geneva Protocol did not prevent the usage of biological weapons, examples being the second World War and the Vietnam war. There was a need for a more definitive convention that had to be adopted and implemented, and in hopes of the same, the United Nations started working towards the disarmament of biological weapons. Initially, most nations were unwelcoming of this suggestion, but this position was drastically altered once the then President of the United States, Richard Nixon, announced his support for renunciation of biological weapons.[25]

At the very onset, the BWC specifies in its preamble that it finds its foundation in the Geneva Protocol and adheres to all its principle and objectives. The essence of the convention is the prohibition of the storage, development, or usage of any biological weapons or toxins for hostile purposes or armed conflict.[26] It places a positive obligation of due diligence on each member State to prohibit and prevent the development of such weapons in their territory or area of jurisdiction[27], further iterating that no member State shall in any way assist or induce another State to acquire any biological toxins, weapons or the equipment thereof.[28] The BWC envisages a world free of biological weapons and therefore stipulates that all

23 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 94 L.N.T.S. 65.

24 Julian Perry Robinson, Public Health Response to Biological and Chemical Weapons 110, World Health Organization (2d ed. 2004).

25 Jonathan B. Tucker and Erin R. Mahan, President Nixon's Decision to Renounce the U.S. Offensive Biological Weapons Program (National Defence University Press, 2009).

26 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 1 (1972), 1015 U.N.T.S. 163.

27 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 4 (1972), 1015 U.N.T.S. 163.

28 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 3 (1972), 1015 U.N.T.S. 163.

existing biological weapons, toxins, or equipment must be destroyed or diverted to peaceful purposes within nine months of it being brought to force.[29] There is also an undertaking of cooperation that exists among the states to ensure the application of the stipulations of the convention.[30]

It must be acknowledged with due care that this prohibition on the usage of biological weapons is not absolute; it is only for purposes that are not prophylactic, peaceful, or protective.[31] In fact, the convention urges all Member States to participate in the fullest exchange of research and knowledge to develop themselves in the field of biology. It clarifies that there is no intention to hamper any technological or economic developments arising from research in this field.[32]

Finally, it asserts that any complaint one member State has with another regarding breach of obligations of the convention can be addressed to the Security Council of the United Nations. Upon consideration, it may investigate the matter further.[33]

This convention, like most international treaties, relies hugely on State cooperation and confidence-building. In order to pursue the successful implementation of the convention, the member States hold review conferences every five years to discuss developments in the implementation of the stipulations as well as future plans and endeavours of the countries. Implementation Support Units (hereinafter ISUs) were established in the sixth review conference for administrative support and assistance as well as the national implementation of the BWC.[34] There have been eight review conferences so far, the most recent one being held in 2016,[35] the results of which found most state parties disappointed as there was minimal consensus amongst the members. Therefore, despite the presence of a Final Document that commanded agreement of all members, the text of the same was barely different from the same of the seventh review conference.

29 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 2 (1972), 1015 U.N.T.S. 163.

30 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 5 (1972), 1015 U.N.T.S. 163.

31 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, art. 1 (1972), 1015 U.N.T.S. 163.

32 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, art. 10 (1972), 1015 U.N.T.S. 163.

33 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, art. 6 (1972), 1015 U.N.T.S. 163.

34 *ISU,* Biological Weapons Convention, (Jun. 19, 2020, 09:00AM), https://bwc1972.org/home/the-biological-weapons-convention/isu/.

35 U.N. BWC, 8th Review Conference*,* U.N. Doc. BWC/CONF.VIII/4 (Jan. 11, 2017).

Despite the seemingly bleak future of the BWC, it has suddenly emerged as a convention of immense relevance and deliberation following the allegations of its violation by China. The conjecture that the coronavirus was manufactured by laboratories in China intentionally is a clear violation of the very essence of this convention. However, it has been maintained by China consistently, as by all other countries faced with similar allegations in the past, that its laboratories dedicated to biological research are only for peaceful developmental purposes.[36] Whether or not the allegations against China have any veracity is beyond the scope of this article, however, the extent of the legal lacunae that plagues the BWC has been explored extensively and is discussed in the next part.

Legal Lacunae and Loopholes of the BWC

The BWC is undeniably a crucial step that the international community has taken towards disarmament. It is a specialization of the text of the Geneva Convention and highlights that chemical and biological weapons ought to be differentiated in order to truly achieve complete weapons reduction. However, there are certain shortcomings of the Convention which act as barriers in allowing it to reach its full potential.

The first major impediment in the BWC is incontrovertibly evident in the very first article itself. The article states that "*each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain microbial or other biological agents, toxins, weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict*".[37] It seems to be a forthright article, however, there is no clear definition of "weapons, equipments or means of delivery" that has been agreed upon by the State parties.[38] Biological weapons had been defined as those the design of which indicated that they could have no other use than for hostile purposes, or that they were specifically intended to be used for such purposes.[39] Initially, Switzerland, stating that since there is no clear definition provided by the convention, held the right to determine for itself what would constitute a biological weapon.[40] The explanation offered by Switzerland was that since there are hardly any

36 *Biotechnology in China,* National Center for Biotechnology Information, (Jun. 19, 2020, 09:00AM), https://www.ncbi.nlm.nih.gov/books/NBK236101/

37 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 1 (1972), 1015 U.N.T.S. 163.

38 Julian Perry Robinson, Public Health Response to Biological and Chemical Weapons 110, World Health Organization (2d ed. 2004).

39 *Documents on Disarmament*, United States Arms Control and Disarmament Agency (1970).

40 *Switzerand: Ratification of Biological Weapons Convention,* United Nations Office for Disarmament Affairs, (Jun. 19, 2020, 09:00AM), http://disarmament.un.org/treaties/a/bwc/switzerland/rat/washington.

weapons which are peculiar to being used only for hostile purposes, it ought to decide for it what auxiliary means fall within that definition.[41] The United States of America, albeit agreeing to the limitation of this definition, objected to this reservation and maintained that a country must not unilaterally reserve with itself the right to determine what constitutes a weapon as that undermines the very essence and authority of the BWC.[42] In today's rapidly developing world where new advancements in science and technology take place regularly, such a clear distinction between a weapon and machinery is difficult to observe. This has commonly been recognised as the 'dual-use dilemma', where the results of well-intentioned scientific research can be used for both good and harmful purposes. There is no black and white differentiation, and the BWC has no clear definition of what constitutes 'weapons, equipment, or means of delivery' to navigate this grey area. Hence, its stipulations are always at risk of being subverted.

Secondly, another glaring limitation present in the first article is the specification of the prohibition of only those biological weapons which use toxins or agents for hostile purposes or armed conflict. The convention explicitly allows the use of biological toxins or agents for peaceful, prophylactic, and protective purposes.[43] While ipso facto this seems to be a straightforward stipulation, it is perhaps the most controversial article of the Convention. In research facilities, in the initial stages of research and development, and perhaps even later, it is difficult to stratify the research into hostile and peaceful slots. Just as to manufacture an antidote one must deal with the toxin that would develop the antibodies required for such a cure[44], for developing vaccines, protective equipment, and other prophylactic research, a laboratory will have to host the biological toxin in question. Thus, the difficulty here arises in ascertaining the intention of the member State while handling these biological toxins and agents. This could have been solved by appropriate measures of verification of such intentions coupled with accountability for the same, however, attempts towards the same have so far been unsuccessful.

The third Review Conference of the BWC had tasked a group of experts called VEREX (verification experts) to discuss potential measures of verification to determine the purpose of research as well as the adherence to the Convention by the State Parties.[45] Based on the

41 *Switzerand: Ratification of Biological Weapons Convention,* United Nations Office for Disarmament Affairs, (Jun. 19, 2020, 09:00 AM, http://disarmament.un.org/treaties/a/bwc/switzerland/rat/washington.

42 *Documents on Disarmament*, United States Arms Control and Disarmament Agency (1970).

43 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 1 (1972), 1015 U.N.T.S. 163.

44 *International Programme on Chemical Safety,* World Health Organization, (March 13, 2020, 11:00 AM), https://www.who.int/ipcs/publications/training_poisons/guidelines_poison_control/en/index7.html

45 U.N. BWC, 3rd Review Conference, U.N. Doc. BWC/CONF.III/23 (Sept. 27, 1991).

report of this group, an Ad-Hoc group was established to create a legally binding protocol regarding verification to strengthen the Convention.[46] However, the recommendations of this ad-hoc group were never adopted due to differences between the member States.[47] Currently, no binding verification mechanism exists to ensure compliance with the Convention.

An Accountability Framework for the BWC reporting on national compliance to the Review Conferences was initiated in the First Review Conference itself, however, government reports remained unsystematic and lacked uniformity and compliance. In 2006, there were only 22 national reports to the Sixth Review Conference from among 155 States Parties.[48] The BWC has no stipulation which obliges the Member States to declare the possession of such banned weapons, the laboratories engaged in research and development surrounding biological agents which could be used for hostile purposes, or the usage of biological agents in non-prohibited activities. There is no limitation to the quantity or type of toxins that are permissible as per the Convention. Further, no external organisation outside the framework of the BWC has the legal authority to implement any verification mechanism. This essentially serves the member States with a carte blanche with no accountability, where submitting themselves to the inspection of the BWC is merely voluntary.

Thirdly, the nebulous line that divides research for peaceful and hostile purposes also infests as a problem while reading Article 3 of the BWC in consonance with Article 10. Article 3 states that each State Party to this Convention undertakes not in any way to assist any State in manufacturing or otherwise acquiring any of the agents, toxins, weapons, equipment or means of delivery specified in Article I of the Convention.[49] Further, Article 10 states that the States Parties to this Convention undertake to facilitate and have the right to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the use of biological agents and toxins for peaceful purposes in order to avoid hampering the economic or technological development of States Parties to the Convention.[50] Firstly, without a clear and uniform understanding of what constitutes a 'hostile purpose', these articles regrettably act as contrary forces. Most machines and equipment using biological toxins, or even otherwise, are not exclusive in their usage; as

46 *Press Release DC/2688*, United Nations Media Coverage and Press Releases (March 13, 2020, 11:00AM), https://www.un.org/press/en/2000/20000313.dc2688.doc.html.

47 The Biological Weapons Convention: An Introduction, United Nations Publication 22-23 (2017).

48 Nicholas A. Sims Et Al., An Accountability Framework of the BWC 4 (2010).

49 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, art. 3 (1972), 1015 U.N.T.S. 163.

50 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, art. 10 (1972), 1015 U.N.T.S. 163.

such, they can be weaponised. Since the BWC's *raison d'être* is disarmament, co-operation in the exchange of biological agents is hard to accommodate without leaving room for misuse. Secondly, Article 10 promotes co-operation in exchange for technology which has led to a significant technological gap between the developed and developing countries as most developed countries exchange information without accommodating other countries which are behind in technological developments, as was acknowledged by the Member States in the Fourth Review Conference of the BWC.[51] This has hampered economic growth in developing countries, contrary to its intention.

The fourth shortcoming presents itself in the observation that countries are often reluctant to disclose information regarding their military facilities. Their own plans and actions are 'information' and those of another state is 'propaganda'.[52] This resistance in co-operation might stem from international politics, but it creates a perplexity with regard to the BWC as it is dependent on confidence and meaningful co-operation amongst the member States for successful implementation. The secrecy surrounding biological research could create suspicions and lead to allegations of breaches. Further, in order to get ahead in the arms race, countries might act on those suspicions, true or not, and embark on their defensive, or offensive, weapons programmes.

The fifth problem is the complaint mechanism as stipulated in the Convention. The BWC provides for a complaint mechanism in case the aforementioned allegations do arise. Article 5 of the BWC provides that the state parties may consult each other to solve any problem in relation to the objective of the BWC.[53] Article 6 of the BWC states that any State Party to this Convention which finds that another State Party is acting in breach of obligations may lodge a complaint with the Security Council or the Secretary-General[54] of the United Nations, which, based on the evidence provided by the complainant, it may take into consideration for further investigation.[55] However, due to the secrecy surrounding such research discussed above, it is very difficult for a member State to gather such information which has enough force for the UNSC to initiate investigations. Nonetheless, there is no instance when parties have used the procedure prescribed under Article 6 of the BWC. This

51 U.N. BWC, 4th Review Conference, U.N. Doc. BWC/CONF.IV/9 (Dec. 6, 1996).

52 Jeff Gerth, *Military's Information War is Vast and Often Secretive,* The New York Times (Jun.11, 2020,11:00AM), https://www.nytimes.com/2005/12/11/politics/militarys-information-war-is-vast-and-often-secretive.html.

53 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 5 (1972), 1015 U.N.T.S. 163.

54 U.N. BWC, 3rd Review Conference, U.N. Doc. BWC/CONF.III/23 (Sept. 27, 1991).

55 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Art. 6 (1972), 1015 U.N.T.S. 163.

may be because of its highly political nature of formally accusing another State Party of non-compliance. Further, if any allegations are against the permanent members of the Council, which is a probable condition considering they are leading powers in technological and military advancements, they can veto any investigation which may have been conducted.[56] Additionally, there has been no punishment specified in the stipulations of the BWC which may be accorded to defaulting parties. Another forum for addressing such complaints can be the International Court of Justice.[57] However, member states often have reservations to their declarations to the ICJ limiting its authority and jurisdiction on certain matters[58], thereby often rendering this topic of investigation out of bounds.

The sixth and final issue that cripples the BWC has been the lack of available funds for its functioning and the negligence and lack of assistance of Member States in this regard. In the 2018 Meeting of the State Parties, it was affirmed that "the financial problems encountered by the BWC result from: (a) Structural non-payment, which is a persistent pattern of non-payment of contributions within the calendar year, creating a consistent deficit in the revenues available for the work of the intersessional programme as well as accumulated debts currently in excess of $130,000; (b) Delayed payment, which is a payment within the budget year, but later than the thirty days expected upon receipt of the invoice, such that funds may not be available at the time they are required; (c) Inadequacy in applying the Financial Regulations and Rules of the United Nations to the agreed programme of work of the BWC, in light of the requirement that full funding is on hand before staff contracts are signed or meetings are held and thus have led to difficulties in extending ISU contracts, as well as to cancelling (or reducing) meetings agreed in the intersessional programme"[59]. Further, in 2016, the Implementation Support Unit of the BWC distributed a document prepared by the Financial Resources Management Service (FRMS) of the United Nations which states that 62% of the State Parties owed a total of US$ 96,519 to the Convention between 2001-16 only.[60] This has significantly hampered the effective implementation of the BWC, as well as the smooth functioning of the ISU and convening of meetings in the future.

56 UN Charter, Art. 27 (1945), 557 U.N.T.S. 143.

57 ICJ Statute, Art. 36 & 40 (1945), 33 U.N.T.S. 993.

58 ICJ Statute, Art. 36 (1945), 33 U.N.T.S. 993.

59 U.N. BWC, Elements of a Decision on Measures to address the Financial Predictability and Sustainability of the Convention, U.N. Doc. BWC/MSP/2018/CRP. 1 (Dec. 4, 2018).

60 Kathryn Millett, Financial Woes Spell Trouble for the Biological Weapons Convention, in Health Security Vol. 15 (2017).

Allegations of Non-Compliance

Ever since its implementation, there have been many instances of allegations of non-compliance with the BWC. At several review conferences, States Parties have openly accused others of violating the provisions of the BWC. For instance, during the Third Review Conference, in 1991, Australia, the United Kingdom, and the United States blamed the Soviet Union for manufacturing biological weapons,[61] and at the principal meeting of the Fifth Review Conference,[62] in 2001, the United States made claims against four States Parties, namely Iraq, Iran, North Korea, and Libya for violating the BWC. Discussed further are those cases which have received the most attention amongst such allegations.

The Sverdlovsk Case

In the year 1980, an accusation against the Soviet Union for maintaining an offensive biological weapons programme which included production, weaponization, and stockpiling of biological warfare agents was made by the United States of America.[63] An airborne release of anthrax spores from a Soviet biological facility, which caused an outbreak of anthrax in the city of Sverdlovsk in 1979,[64] was considered to be the basis of this accusation. The Soviet Union attributed the breakout of this infection to the sale of anthrax-contaminated meat in violation of veterinary regulations.[65] Interestingly, this incident is eerily similar to the current case of the spread of the coronavirus. Subsequently, various meetings of scientists from all over the world were held to evaluate the Soviet account of the incident, but to no avail.[66] Finally, in 1992, after the internal disintegration of the Union of Soviet Socialist Republic,[67] the Russian authorities admitted that a breach of the BWC had been committed.[68]

61 U.N. BWC, 3rd Review Conference, U.N. Doc. BWC/CONF.III/23 (Sept. 27, 1991).

62 U.N. BWC, 5th Review Conference, U.N. Doc. BWC/CONF.V/17 (Nov. 22, 2002).

63 *Keeping an eye on Russia,* The New York Times Magazine, (Jun. 09,2020,09:00AM), https://www.nytimes.com/1981/11/29/magazine/keeping-an-eye-on-russia.html.

64 *Soviet City exposed to Lethal Germs*, The Kansas City Times p. A2 (March 19, 1980).

65 *Anthrax in Humans and Animals,* World Health Organization (4d ed. 2008); U.N. BWC, 1st Review Conference, U.N. Doc. BWC/CONF.I/SR.12 (Mar. 25, 1980).

66 Robert Lee Hotz, *Anthrax Deaths Tied to Soviet Lab: Biological warfare: Finding by U.S., Russian researchers raises possibility that international treaty was broken in 1979 outbreak that killed 68 people,* The Los Angeles Times, (Jun. 09,2020,09:00AM), https://www.latimes.com/archives/la-xpm-1994-11-18-mn-64333-story.html.

67 *The Collapse of the Soviet Union,* Office of the Historian, (Jun. 09,2020,09:00AM), https://history.state.gov/milestones/1989-1992/collapse-soviet-union.

68 Jozef Goldblat, *The Biological Weapons Convention-An Overview,* International Committee of the Red Cross (Jun. 09,2020,09:00AM), https://www.icrc.org/en/doc/resources/documents/article/other/57jnpa.htm.

The "Yellow Rain" Case

In 1981, the Soviet Union was again accused of violating both the Geneva Protocol and the BWC by the US government.[69] The accusation was based on the production, transfer, and use of Trichothecene Mycotoxins (a group of toxins).[70] The Soviet Union unequivocally rejected the allegation. US charges were based on observers who reported that an adversary airplane had been showering a toxic yellow material on fields. The USA used several reports from chemical laboratories to substantiate their case. However, the veracity of the proof was increasingly questioned[71] as broad systematic endeavours in a few labs neglected to affirm the initial positive reports of Trichothecenes.[72]

The Cuban Allegation

In 1997, the United States of America was accused by Cuba for committing biological aggression.[73] Cuba alleged that an American crop-spraying plane was witnessed releasing an unknown mist into the air.[74] A few months later, the Cuban National Pest Control Center discovered Thrips palmi, a bug that feeds on many agriculturally important crops, for the first time in Cuba.[75] The Cuban government requested an investigation under Article 5 of the BWC. After inspecting the proof from the two nations, States Parties submitted reports to the Chairman of their meeting. Of the 12 States Parties that made entries, 9 commented that the data didn't bolster the Cuban charges and 2 (China and Vietnam) said that no concrete conclusion could be drawn.[76]

Iraq Accusation

In the year 2002, the USA and the UK accused Iraq of non-compliance of the BWC.[77] Iraq

69 US Department of State, Press Release (Sept. 13, 1981)

70 US Department of State, Press Release (Sept. 13, 1981)

71 U.N. GAOR, 37th Sess., UN Doc. A/37/259 (Dec. 1, 1982); U.N. GAOR, 36th Sess., UN Doc. A 36 613 (Nov. 20, 1981).

72 J.P. Robinson Et Al, Yellow Rain in Southeast Asia: The Story Collapses, MIT Press, Cambridge Mass. (1990).

73 Jenni Rissanen, *The Biological Weapons Convention,* Nuclear Threat Initiative (Mar. 1, 2020, 09:00AM), https://www.nti.org/analysis/articles/biological-weapons-convention/.

74 Jenni Rissanen, *The Biological Weapons Convention,* Nuclear Threat Initiative (Mar. 1, 2020, 09:00AM), https://www.nti.org/analysis/articles/biological-weapons-convention/.

75 Jenni Rissanen, *The Biological Weapons Convention,* Nuclear Threat Initiative (Mar. 1, 2020,09:30AM), https://www.nti.org/analysis/articles/biological-weapons-convention/.

76 Raymond Zilinskas, Cuban Allegations of Biological Warfare by the United States: Assessing the Evidence, in Critical Reviews in Microbiology 173-227 (2008).

77 Erhard Geissler, Chemical and Biological Warfare and Arms Control Developments, in SIPRI Yearbook: World Armaments and Disarmament (Oxford University Press, 1992)

became a member of BWC in the year 1991[78] when it also agreed to disclose information of all of its weapons of mass destruction and undertook to destroy them.[79] The UNSC created a body called UNSCOM[80] to review Iraq's chemical, biological, and missile abilities and accommodate their annihilation. It was revealed that Iraq's biological weapons program produced anthrax bacteria, ricin, botulinum toxin, aflatoxin, and wheat cover smut fungus.[81] Iraq professes to have finished its natural weapons program in 1991, but it is generally accepted that Iraq kept up the program all through the 1990s. These convictions are substantiated by Iraqi attempts to hide its program from UNSCOM overseers. In 1998, Iraq suspended collaboration with UNSCOM leaving numerous issues unanswered.[82] The gathering was disbanded and supplanted with the UN Monitoring, Verification, and Inspection Commission (UNMOVIC).[83] On November 8, 2002, the UNSC adopted Resolution 1441 expecting Iraq to allow unlimited access to UNMOVIC controllers. However, Iraq has neglected to reveal numerous subtleties of its biological weapons program to UNMOVIC.[84]

These cases further go on to prove that despite actions and evidence pointing to violation of the Convention, it has proved difficult for State Parties to actively use the Convention to prohibit such acts. This is substantiated by the fact that the complaint mechanism of the BWC has never been invoked so far.[85] This is indicative of the assertion that the BWC ought to incorporate a few changes and solutions in order to further its goal of complete disarmament.

Improving The BWC

In pursuance of the previously discussed shortcomings of the BWC, certain alterations and additions to the Convention may go a long way in improving its implementation and efficiency.

78 *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, United Nations Office for Disarmament Affairs.

79 S.C. Res. 687 (April 8, 1991).

80 S.C. Res. 687 (April 8, 1991).

81 John Pike, *Biological Weapons Program: History,* Webmaster (Nov. 3, 1998), https://fas.org/nuke/guide/iraq/bw/program.htm.

82 *Collapse of Iraq-UNSCOM Relations*, Disarmament Diplomacy, (Mar. 21, 2020, 09:00AM), http://www.acronym.org.uk/old/archive/20iraq.htm.

83 S.C. Res. 1284 (Dec. 17, 1999).

84 *Press Release SC/7664,* United Nations Meetings Coverage and Press Releases (Feb. 14, 2020, 11:00PM), https://www.un.org/press/en/2003/sc7664.doc.htm.

85 Wanda Archy, *The Biological Weapons Convention (BWC) at a Glance,* Arms Control Association (Mar. 13, 2020, 09:00AM), https://www.armscontrol.org/factsheets/bwc.

> "*Endogenous reinforcement can be intelligently steered, in such a way as to put flesh on the bare bones of the BWC, and to do so with a care for internal balance so that all its sectors move forward together. Its sectors include a regime of compliance, a regime of development, a regime of permanence, and a prospective regime of research.*"[86]

The most limiting barrier in the effective execution of the stipulations of the BWC is the lack of a clear distinction between peaceful and hostile purposes of biological agents or toxins. This ambiguity is justified due to the nature of research that goes into the development of biology-related technology. Therefore, for the BWC to be successful in preventing the development and usage of toxins for hostile purposes, a verification mechanism can be established which confirms compliance with the Convention and monitors the nature of research taking place in member States. Inspiration may be taken from the establishment of the IAEA (International Atomic Energy Agency) that verifies whether a State is living up to its international commitments to not use nuclear programmes for nuclear-weapons purposes.[87] Treaties concerned with non-proliferation, such as the NPT (The Treaty on the Non-Proliferation of Nuclear Weapons), entrust the IAEA as their nuclear inspectorate.[88] It has been granted extensive powers and authority through the Additional Protocol to the safeguards agreement which enhances its abilities of verification.[89] A similar Agency or organization which ensures the implementation of the BWC by conducting safeguard activities such as verification of reports submitted by State Parties, scheduled and unscheduled on-site inspections of facilities, laboratories or other locations containing biological toxins and equipment, verification of biological material inventory, surveillance measures, etc. will significantly increase the compliance of State Parties to the Convention and eventually play a role in building confidence amongst them by lifting the veil of secrecy.

The problem of the lack of accountability can be approached keeping in mind the Canadian proposal of an Accountability Framework at the Sixth Review Conference of the BWC.[90] An annual meeting of the State Parties of the BWC can be conducted where the focus would be on a State's accountability of its biological research and development to other States. Each State Party would report its actions towards the fulfilment of the stipulations of the BWC, article by article. This would ensure that the structure of the Framework

86 Nicholas A. Sims Et Al., An Accountability Framework of the BWC 200 (2010).

87 Statute of the International Atomic Energy Agency, Art. 2 (1957), 276 U.N.T.S. 3.

88 *IAEA Safeguards Overview: Comprehensive Safeguards Agreements and Additional Protocols,* IAEA, (Feb. 14, 2020, 11:00PM), https://www.iaea.org/publications/factsheets/iaea-safeguards-overview.

89 *Additional Protocol,* IAEA, (Feb. 14, 2020, 11:00PM), https://www.iaea.org/topics/additional-protocol.

90 Nicholas A. Sims Et Al., An Accountability Framework of the BWC 200 (2010).

would already be known to the members. To enforce a sense of uniformity, a general list of questions and criteria may be provided based on which the members can proceed with their reports.

The difficulty in observing Articles 3 and 10 of the BWC conjointly can also be solved if, in a meeting such as this, any exchange of biological research, equipment, or agents and toxins of a significant decided quantity is declared. This declaration could be substantiated by a report of its nature and usage by the receiving country. This would ensure that such exchange is accounted for and is solely being used for peaceful purposes and economic and technological development. This meeting need not be annual, but the essence is regularity.

While a meeting such as the one discussed above may go a long way in increasing transparency, other forms of Confidence Building Measures (hereinafter CBMs) can be adopted to increase trust and allay insecurity amongst member States. CBMs are agreements between parties for the exchange of information regarding military and security activities along with verification.[91] Keeping the BWC in mind, these measures could include prenotifications of tests conducted for biological equipments, joint training programmes fostering biological research and development, exchange programmes for sharing such research, on-site visits by officials, etc. These measures will ensure that usual developmental activities aren't mistaken for being hostile and thereby reduce suspicions.

The complications in the complaint mechanism pose a menace to the foremost purpose of minimizing the use of Biological Weapons. A remedy to this predicament could be a modified version of the remedy used by the IAEA. In the IAEA, a separate organ deals with the investigation of complaints of non-compliance; when this organ finds some violation by a state party, then it may refer the matter to the UNSC.[92] The proposal here is that a new representative body of state parties should be established, like the one in IAEA rather than the United Nations, having the sole authority to deal with the investigation of matters of non-compliance. In adjudging complaints of violations of the BWC, the newly established representative body of the state parties should play the primary role in doing the investigation, when this body finds a violation then it must report it to the UNSC, which shall further take suggestions of the representative body whilst making a decision. Additionally, following an already proposed suggestion during initial negotiations,[93] the

91 Simon JA Mason & Matthias Siegfried, Confidence-Building Measures in Peace Processes, in Managing Peace Processes: A Handbook for AU Practitioners, Vol. 1 57-77 (African Union and the Centre for Humanitarian Dialogue, 2013).

92 Laura Rockwood, Legal Framework for IAEA Frameworks (IAEA Library, 2013).

93 The Biological Weapons Convention: An Introduction, United Nations Publication (2017).

permanent members of the UNSC should waive their right to veto with regards to matters or resolutions related to investigations of complaints.[94] This suggestion would also facilitate in upholding the principle of natural justice *nemo judex in causa sua*.[95] No specification of punishment for violation of provisions of BWC is also a major concern. As William Blackstone said, "*It is a settled and invariable principle of law, that every right when withheld must have a remedy*".[96] As we have already suggested the relegation of the UNSC from its status as the primary investigation authority in cases related to the BWC, thus we propose an alternative way for punishing the responsible state; reparations[97] in the form of restitution,[98] compensation,[99] and satisfaction[100] must be demanded from the responsible state under the Responsibility of States for Internationally Wrongfully Acts (ARSIWA).

Finally, every organization needs financial adequacy to manage its functions. The lack of funds[101] has been the least addressed issue in BWC's review conferences since its inception.[102] The measures to ameliorate the financial sustainability of the Convention ought to be urgently addressed. These could involve asking the UNODA to send invoices to the state parties at earliest and asking them to pay their past evaluated contributions without further delay. Additionally, creating a contingency fund of 10% to the cost estimates for a year would facilitate in meeting the unforeseeable requirements.[103] Moreover, a mechanism for enhancing liquidity within a budget year would succour; a reserve fund, financed by voluntary contributions should be created to serve this purpose. This reserve fund should focus on generating contribution amounting to at least 50% of the expected annual expenditure;[104] it shall be utilized as a method for financing costs of mandated exercises.

94 *Press Release GA/12091,* United Nations Meetings Coverage and Press Releases (Mar. 20, 2020,09:00AM), https://www.un.org/press/en/2018/ga12091.doc.htm; Gareth Evans, *Should the UN Security Veto be Limited?,* World Economic Forum (Feb. 5, 2020,08:00AM), https://www.weforum.org/agenda/2015/02/should-the-un-security-council-veto-be-limited/.

95 Adrian Vermeule, *Contra Nemo ludex in Sua Causa: The Limits of Impartiality*, 384 - 420 Yale L.J. (2012).

96 William Blackstone, *Commentaries on the Laws of England* 23 (1765).

97 Responsibility of States for Internationally Wrongful Acts, Art. 34 (2001).

98 Responsibility of States for Internationally Wrongful Acts, Art. 35 (2001).

99 Responsibility of States for Internationally Wrongful Acts, Art. 36 (2001).

100 Responsibility of States for Internationally Wrongful Acts, Art. 37 (2001).

101 Jenifer Mackby, *BWC Meeting Stumbles over Money, Politics,* Arms Control Association (Feb.11, 2019,11:00AM), https://www.armscontrol.org/act/2019-01/news/bwc-meeting-stumbles-over-money-politics.

102 Prevention, Response and Recovery, in Countering Bioterrorism: The Role of Science and Technology (Institute of Medicine and National Research Council, 2002).

103 U.N. BWC, Elements of a Decision on Measures to address the Financial Predictability and Sustainability of the Convention, U.N. Doc. BWC/MSP/2018/CRP. 1 (Dec. 4, 2018).

104 U.N. BWC, Elements of a Decision on Measures to address the Financial Predictability and Sustainability

In furtherance, a firm budget should be created. Proper accounting of financial documents should take place every year. Furthermore, it is proposed that careful consideration should be given to the arrears of a particular State Party before electing its citizen as an officeholder under the BWC. All the non-state parties that attend a BWC meeting should be asked to pay a certain amount of contribution in respect of the meeting attended. At the very least, the financial condition of the BWC should be an agenda in upcoming BWC meetings and conferences.

Conclusion

Conventions and Protocols play a large role in ensuring peace and stability globally. Each State voluntarily accepts a Convention and the text of the same is also decided based on the consent of the member States.[105] This requires cooperation and trust, both of which are severely hampered if feelings of suspicions infest within international relations. Additionally, wars have historically been a recurring hurdle that societies have had to face, and often they have had catastrophic results on civilians due to the usage of certain inhumane weapons. Biological weapons are a dangerous and intractable form of weapons and can destroy societies with ease if not eliminated. Therefore, a Convention such as the BWC potentially acts as a source of trust and cooperation and a barrier between humanity and a dystopian society; its goals of the elimination of biological weapons are essential for the survival of mankind. The suggestions contained in this paper are a glimpse of how the Convention can serve its purpose to its fullest.

As for the question of China and the allegations posed against it; if such allegations are true, then China would have violated the BWC. If China has manufactured the virus as a biological weapon[106], it is a direct violation of Article 1 of the Convention which prohibits the development and usage of biological toxins for hostile purposes. Further, even if China claims that in such a circumstance there was no government involvement, the mere presence of such a BW programme within their territory would constitute a violation of the duty of due diligence stipulated under Article 4 of the Convention. However, due to the shortcomings of the BWC, prima facie it cannot be conclusively held whether there was a violation of the BWC or not. China, like all accused countries, will maintain that any and all biological laboratories are only used for peaceful and developmental purposes. Due to

of the Convention, U.N. Doc. BWC/MSP/2018/CRP. 1 (Dec. 4, 2018).

105 Vienna Convention on the Law of Treaties, Art. 9 (1969), 1155 U.N.T.S. 331.

106 Dr. Adish C Aggarwala, *Complaint to the United Nations Human Rights Council, Geneva* para 5, p. 25 (April 3, 2020,08:00AM), https://www.livelaw.in/pdf_upload/pdf_upload-372096.pdf.

the barriers of secrecy, lack of evidence, lack of proper definition of what could constitute a biological weapon, no obligations to declare biological research and development, and no verification mechanisms, the veracity of either claim will be implausible to determine beyond doubt.

The BWC is in dire need of certain changes to improve its efficiency and validity, the most important of which is a verification mechanism that instills a sense of accountability in the State Parties. Each State ought to make collective efforts to build confidence and negate feelings of suspicion and secrecy which are the main reasons behind the escalation of an international crisis. They must also bear the onus of financing the BWC more responsibly as it is a Convention that will only become more and more essential with developing technology and intelligence.

To ensure that no country, organization, or group of people use the loopholes in the BWC to cause harm to the society, and to ensure that in case of pandemics such as today's coronavirus, the trust and security amongst countries are not shattered, it is imperative that these inconsistencies be addressed and rectified. This will be the international community's quantum jump towards mankind.