Is there a 'carrot' in the BWC?

An examination of the effectuality of Art. X of the BWC

A Master's Thesis

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List of Abbreviations

AG – Australia Group

AHG – Ad Hoc Group

BW - Bioweapons

BWC – Biological Weapons Convention

CBM – Confidence Building Measures

CCD - Conference on the Committee on Disarmament

CSP - Conference of States Parties

CWC – Chemical Weapons Convention

EG – Eastern Group

ENCD - Eighteen-Nation Committee on Disarmament

IAEA – International Atomic Energy Agency

ISP – Intersessional Process

ISU – Implementation Support Unit

LDC – least developed countries

NAM – Non-Aligned Movement

NPT – Non-Proliferation Treaty

NSG – Nuclear Suppliers Group

NNWS – Nonnuclear Weapon States

NWS – Nuclear Weapon States

ODA – Official Development Assistance

OPBW - Organisation for the Prohibition of Biological Weapons

OPCW - Organisation for the Prohibition of Chemical Weapons

RevCon – Review Conference

WG – Western Group

1. Introduction

In their general construction, arms control regimes (Non-Proliferation Treaty (NPT), The Biological and Toxin Weapons Convention (BWC) and Chemical Weapons Convention (CWC)) tend to follow the same tripod structure of principles in order to ensure optimal operation: Nonproliferation and prohibition, monitoring and verification, and cooperation and assistance in peaceful uses of the technologies. The interplay of these three pillars is vital for the success, effectivity and survival of the arms control regimes. Yet more often than not, we find the member states constantly butting heads on what the balance between the three should be. These differences in preference and interpretation of the costs and benefits that the member states expect upon joining the treaties[1], and what they consider as the 'essence' of a treaty has resulted in many heated debates and recurring complaints at Review Conferences and meetings of the member states of the treaties, and has prompted quite a large body of scientific literature on the matter[2][3]. These complaints (primarily the domain of developing countries[4]) if left unaddressed and unresolved threaten the effectivity, relevance and, in the worst case, the very existence of an arms control regime. Naturally, every regime has a different set of 'rich points', where conflict arises, but there is one point of conflict that the three regimes have in common: Cooperation and assistance for peaceful purposes[5]. The treaty texts of the NPT, BWC and CWC all include an article (Articles IV, X and XI, respectively) under which the member states are obligated to assist each other and

[1] cf. Bernauer, T.; Ruloff, D (1999). The Politics of Positive Incentives in Arms Control. Columbia, SC. University of South Carolina Press. 1-46.

[2] Sims, Nicholas A. (2001). The Evolution of Biological Disarmament. SIPRI Chemical & Biological Studies no. 19. Oxford. 120. As cited in Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

[3] cf. Becker-Jakob, Una (2011). Notions of Justice in the Biological Weapons Convention. PRIF Working Paper No.9. Frankfurt.

[4] cf. Becker-Jakob, Una (2013). Balanced minimalism: the Biological Weapons Convention after its 7th Review Conference. Hessische Stiftung Friedens- und Konfliktforschung (Ed.). Frankfurt am Main, 2013 (PRIF Reports 120).

[5] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

cooperate in the technological development for the peaceful use of nuclear, biological and chemical technologies[6].

This thesis will limit its scope to examining the effectuality of Article X (Art.X) of the BWC, through inspecting the to what extent it has served its purpose, what has impeded its proper implementation and what the main elements of the general discourse surrounding it have been.

1.1 Starting point: Problem Diagnosis

As mentioned in the introduction, arms control regimes need a tripod of elements to provide a stable basis for regime functionality. The reason these three elements came to be is because it was believed, during the initial conception and evolution of the regimes, that this mix will be provide an acceptable balance between costs and benefits for states and ensure that the majority of – or ideally, all of – the countries would sign the treaty. Universality of an arms control treaty is imperative for its success, since only then can it credibly pacify the security concerns of its members[7]. One of the approaches to convince states to sign the BWC – same applies for the NPT and the CWC - was the inclusion of an assistance and cooperation for peaceful use clause, which became Art.X. As has been stated above, the implementation of Art.X of the BWC has been a problematic issue for the member states of the convention. The Non-Aligned Movement (NAM) States have been voicing their dismay with what, in their view, is a far cry from full or proper implementation of Art.X. It is their view that other member states of the BWC, who possess the technology that could help some NAM states take their biotechnological game to the next level, have been withholding assistance and thus ignoring their obligation under Art.X[8].

But why are some countries so interested in seeing further implementation of Art.X recently? The current state of biotechnology is far more advanced than it was two

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[6] Texts of the NPT, the BWC and CWC can be found on http://www.un.org/en/conf/npt/2005/npttreaty.html, http://disarmament.un.org/treaties/t/bwc/text and http://www.opcw.org/index.php?eID=dam_frontend_push&docID=6357.

[7] cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

[8] cf. Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

decades ago and countries have started to see the economic benefits that can be reaped from investing in the biotech sector[9]. Countries such as the United States, the United Kingdom and India[10] have been able to build thriving biotechnological sectors in medical, agricultural and industrial biotechnology. Now the rest of the world also wants a piece of the pie.

Not only is biotechnology a lucrative, job creating economic sector, it can also help with environmental protection by using biological agents for purposes that used chemical agents in the past, such as paper bleaching, sewage treatment and biofuel, which are less harmful to the environment. In addition, biotechnology is also quite a prestigious sector, due to its reliance on highly skilled personnel and cutting-edge technology, making it yet more attractive for countries interested in putting themselves on the economic map or reclaiming past relevancy on the international stage.

This brings us to another point why full and proper implementation of Art.X is such an essential matter. In the absence of legal channels for the procurement of biological agents and technologies, states might resort to clandestine and perhaps even dangerous measures to ensure the availability of pathogens and technologies needed in their biotechnological sectors. Due to the manner of which they were obtained, use of the pathogens and technologies might not have the proper biosafety and biosecurity measures to ensure that they do not fall into the wrong hands or are mishandled in a way that endangers their national and the international security. Another bleak scenario might involve many countries walking out on the BWC, leading to the collapse of the regime, leaving this class of non-conventional weapons uncontrolled by a comprehensive and universal treaty.

This suboptimal implementation of Art.X has been attributed to several factors. Two of these factors can also be seen as flaws inherent in the BWC. The first of these two factors is the lack of a system to verify member states' compliance to the directives of the convention. Unlike some chemical agents and nuclear energy, all biological agents are considered as having dual-use potential and are extremely difficult to detect. A small bioweapons program can even be hosted at a brewery during the 'night shift' and the

[9] cf. Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[10] The choice of countries was not a random, but rather made to highlight the fact that some developing countires are also interested in biotechnology and have been successful in that sector. Another reason for choosing the US and the UK is that they are two of the three depository states of the BWC.

same strains of bacteria that are weakened to be used in vaccinations can just as easily be engineered to become super resistant and highly infectious. There has been an unsuccessful attempt to put a verification system into place, which this thesis will address in chapter 3.1.2.

The second factor is the lack of an institutional body that would have a mandate to monitor and regulate the transfer of biological agents and technologies. The high dual-use potential of pathogens and toxins has led to tighter international export control, making it even harder for countries to get their hands on some materials that they need to develop their biotechnological industries. Nevertheless, it is not only the dangerousness of these materials that has led to such strict export controls. As we have seen in the CWC, through the creation of the Organization for the Prohibition of Chemical Weapons (OPCW), and in the NPT, through the International Atomic Energy Agency (IAEA), institutions have been put in place to monitor and verify the uses and the safe handling of hazardous material. The BWC, on the other hand, has yet to undertake such a step toward institutionalization. Currently, the BWC boasts only a small 'unit' that has a limited mandate, which is called the Implementation Support Unit (ISU). More on the mandate and operations of the ISU will be addressed in chapter 3.1.3.

This brings us to another factor that could have hindered better implementation of Art.X. Not only does the BWC not have an institutional body worth mentioning that regulates and monitors exports, it is also held captive by an unofficial body of states (Australia Group) that has taken it upon itself to regulate the export of chemical and biological materials. All its members are also members of the BWC. None are NAM states.

Finally, it is also not too far-fetched to assume that the reason behind some countries' hesitance to supply biological agents and technologies can also be seen as nothing more than an attempt to preserve economic, scientific and technological superiority.

1.2 Political and Scholarly Relevance of the Work

The subject matter and focus of this thesis has been an enthusiastically discussed topic, both on a political and a scholarly level. On the political level, it has added fuel to the fire of accusations of double standards, unfair treatment and defaulting on treaty

obligations that have plagued all three non-conventional weapons control treaties[11]. In recent history, the BWC has taken a back seat to the two other arms control treaties, the CWC and NPT, and it seems at times that its review conferences and meetings come and go without anyone outside the regime taking much notice. This is a stark difference to the ado that accompanies the NPT review conferences. Perhaps it is the low threat perception that states have regarding the danger of biological weapons, given that biological have never been (officially) used in modern warfare. Nevertheless, this should in no way suggest that the BWC has lost its relevance and salience. If for no other reason, the collapse of the BWC due to withdrawal of states from the convention, whom might feel that it would be in their economic interest to leave it, would set an alarming precedence for other arms control regimes that are entangled in their own conflicts.

Furthermore, the matter of full and proper implementation of Art.X has been one of the central issues in meetings, review conferences and reform initiatives with the regime itself[12]. In 1991, the work of the VEREX group was brought to a halt, when the NAM states released a scathing statement, wherein they claimed that the VEREX group was not paying enough attention the developmental aspects of cooperation in the peaceful use of biological agents and technologies. The high hopes pinned on the work of the Ad Hoc group, which met between 1995 and 2001 in an attempt to construct a binding verification system for the BWC, were let down after the process came to a halt due to, among other reasons, differences of opinion between member states on the importance of the cooperation and assistance 'pillar' of the convention[13]. Additionally, the seventh review conference decided to make the strengthening of cooperation under Art.X a standing agenda item for the intersessional meetings of states and experts taking place between 2012 and 2015.

Embarking from liberalist theories of international relations, it is also worth noting that better cooperation between member states not only has a positive impact on the strengthening the convention, but also serves to improve the international relations between countries in general.

[11] See 3.2
[12] See 3.1.1
[13] See 3.1.2

On the scholarly and policy levels, the issue of cooperation and assistance for the peaceful use of nuclear, biological or chemical material has been of vital importance to the study of norm dynamics with arms control regimes and the positive incentives within them as a means to attract and retain membership of states to the convention.

1.3 Central/Guiding Questions, Research Goal, Hypotheses

As the title of this work makes clear, the main question that this thesis asks is whether Art.X is fulfilling its 'carrot' role in the BWC. Given that, as was previously mentioned, arms control regimes are based on a tripod of elements, suggesting that the absence of one will make the regime fail. Hence if the 'carrot', manifested in the BWC by the promise of cooperation and assistance of the peaceful use of biological agents and technologies, does not fulfill its purpose, the outlook for the survival and effectuality of the regime looks bleak. To arrive at a conclusion, this work will discuss the rationale behind the incorporation of such an article in the text of the BWC and its effect on member states that are developing countries and the ones that are developed states. Additionally, the work will include an inspection of the general discourse by different members and regional blocs within the BWC regarding Art.X. This inspection will also attempt to highlight the ambiguity of the demands of the NAM states and the issue of 'repackaging aid' to claim fulfillment of obligation under Art.X by some member states. The thesis will further discuss the various factors that have impeded the full and proper implementation of the article. Also, the work will take a look at how cooperation and assistance articles have fared in the NPT and CWC.

1.4 Methods of Inquiry and Structure of the Work

As a point of departure this thesis will start by looking at the raison d'être of cooperation and assistance clauses in arms control treaties in general and Art.X of the BWC in specific. As Bernauer and Ruloff had pointed out, "it is assumed that an appropriate balance of costs and benefits, which is acceptable to all participating actors, is a prerequisite of any successful cooperation in international relations"[14]. The costs for the participating actors in an arms control regime being the perceived security cost of disarmament in return for the benefit of having a certain class of weapons prohibited - meaning that they wouldn't have to worry about it being used against them, given that

[14] Bernauer, T.; Ruloff, D (1999). The Politics of Positive Incentives in Arms Control. Columbia, SC. University of South Carolina Press. 1-46.

the treaty gains universality, or at least membership of 'critical states'[15] – and that, as an added bonus, they gain access to materials and technologies from other participating actors, which they were previously denied. This reasoning holds true for participants from developing countries in a certain arms control regime. As for the participants from developed countries, the benefit is the security assurance that their wealth and prosperity is safe from an attack using a certain class of weapons, whereas the cost would be to have to share part of that 'wealth and prosperity' in the form of technological cooperation, which they might view as a threat to their developmental superiority. In any case, the situation is supposed to carry 'wins' for all involved. Conflicts will only arise if a participant tips the balance by defaulting on one of their obligations under the treaty.

Following this, the work will examine how the NPT, BWC, and the CWC regimes have dealt with the issue of preserving the balance of costs and benefits for their member states. The existing conflicts will be demonstrated through analyzing scientific literature that has dealt with the issues of cooperation and assistance within the different arms control regimes, in addition to the discourse within the regimes themselves in the form of statements presented during regime meetings and review conferences. Another aspect that will be inspected is the reason behind the comparative success of some regimes to hold the balance in comparison to the others.

The discussion of the salience of cooperation and assistance clauses, and the rationale of their incorporation into arms control treaties, in addition to the comparison of their effectuality across the NPT, BWC and the CWC will be presented in chapters 2.1 and 3.4 of this thesis.

In chapter 3, this work will begin by giving a brief historical background of the evolution of the BWC. It will include the motivation behind its conception and the initial process of its formulation. Later, it will move on to highlight the most important milestones of reform attempts of the convention, with special emphasis on those milestones that dealt with the issues of cooperation and assistance in peaceful use of biological agents and technologies. After this introduction, the thesis will then revisit in more detail the political and scholarly discourse relating to the implementation of Art.X.

[15] cf. Ibid.

The following subchapter will then attempt to list and discuss the main factors that have thus far impeded better and more satisfactory implementation of Art.X

In the final chapter, a summation of conclusions derived from the previous chapter will be compiled, upon which an answer to the central question of this thesis can then presented.

1.5 Theories and Methods

Although it was feared that arms control treaties would lose their relevance after the end of the Cold War and the collapse of the East-West blocs, it in fact breathed new life into them, with new players emerging on the scene[16],[17]. These new players brought along a new set of security challenges, and with the (relative) absence of "effective leadership of a major power"[18] keeping states in line, new strategies for how to reconcile preferences and enhance cooperation in this new multilateral world order had to be created: Positive incentives. Initially, it was presumed that positive incentives (manifested in the case of this thesis in Art.X of the BWC) would be of minor importance, given that the assumption is that the arms control treaties are primarily just about disarmament and non-proliferation[19,20,21]. Nevertheless, there has been a significant amount of literature that has pointed out that positive incentives, especially those of an economic nature are valuable tools to help states meet their post-Cold War challenges. Cortright finds that "[i]ncentives foster cooperation and goodwill[22]". In addition, it has been pointed out by several academics that "incentives can be a powerful instrument to help turn conflict into cooperation[23]".

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[16] cf. Bernauer, T.; Ruloff, D (1999). The Politics of Positive Incentives in Arms Control. Columbia, SC. University of South Carolina Press. 1-46.

[17] cf. Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

[18] Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

[19] cf. *Ibid.*

[20] Sims, Nicholas A. (2001). The Evolution of Biological Disarmament. SIPRI Chemical & Biological Studies no. 19. Oxford. 120. As cited in Littlewood, Jez (2011). Steering the debate in a practical direction. Civil society preparations for the 7th BWC Review Conference 2011. Retrieved from: http://www.bwpp.org/revcon-articlex.html on Apr 24, 2015.

[21] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.

[22] Cortright, D. (1997). The Price of Peace: Incentives and International Conflict Prevention. Lanham, MD. Rowman and Littlefield. As cited in Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

[23] Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

In the case of the BWC, positive incentive endogenous to the regime were enshrined in Art.X. Perhaps the initial supposition was that it would help attract more members and thus contribute to enhancing the universality of the convention and by doing so, strengthen it (see chapter 3.2.2). But as Long rightly argued, in order for positive incentives only work if the recipient is benefitting from them on the long term[24]. Another important factor that should be obvious is that the positive incentives need to be given and not just simply promised if they are going to yield the desired results[25]. This is where it gets tricky for the case of the BWC. If we assume that the Art.X was put into the treaty of the convention to lure in states, then it is fair to argue that this positive incentive has largely been effective. On the other hand, the payout of the incentive never came, with NAM states constantly criticizing the implementation of Art.X in every Review Conference of the BWC to date (see chapter 3.1.1). The issue of Art.X has evolved through the years to become one the major hurdles for reform and development within the BWC[26]. The problem with full and proper implementation of Art.X has been attributed to several reasons including differences in interpretation, lack of verification and export controls (see chapter 3.3). The latter has even evolved further to include claims of unjust treatment[27].

According to Sims, Art.X "has come to be the principal criterion, or one of the key criteria, by which many of its parties judge [the BWC's] success[28]". Perhaps it is quite a stretch to claim that States Parties will simply up and leave the convention if they don't feel that the promises they were made have not been fulfilled, but it could result in them blocking reform and development of the BWC as a coercion strategy to try to get their demands heard and by doing so, rendering the BWC crippled and weak.

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[24] Long, W.J. (1996). Economic Incentives and Bilateral Cooperation. Ann Arbor, MI. Michigan University Press. As cited in Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

[25] cf. Dorussen, H (2001). Mixing Carrots with Sticks: Evaluating the Effectiveness of Positive Incentives. Journal of Peace Research, 38:2, 251-262.

[26] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[27] cf. *Ibid.*

[28] Sims, Nicholas A. (2001). The Evolution of Biological Disarmament. SIPRI Chemical & Biological Studies no. 19. Oxford. 120. As cited in Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

In order to address the central question of this thesis, the work draws extensively on the work of Bernauer and Ruloff to explain the importance of positive incentives for the success of the BWC. Later on, the thesis will address how the importance and of Art.X increased and how it relates to other norms within the regime by drawing on the work of Müller, Becker-Jakob and Seideler-Diekmann.

In Chapter 3, the history of the BWC and the discourse and obstacles regarding the implementation of Art.X will be presented.

Finally, the conclusion will summarize all the arguments presented in chapters 2 and 3 to arrive at an answer for the central question of this work.

1.6 Sources and Literature/State of Current Research

In spite of its dominance of debates within arms control regimes, the issue of cooperation for peaceful use of nuclear, biological or chemical materials is underdeveloped within academia. Even the existing literature does not deal comprehensively with the reasons behind the status quo, its consequences or ideas on changing it. The majority of the literature takes a case-by-case approach for drawing conclusions regarding the effectivity and efficiency of cooperation clauses and positive incentives. The effects of cooperation as provided for in the treaties is an area that has not been adequately research.

On the theoretical side, a great deal is 'borrowed' from other fields, such as development and economics.

This work is based extensively on evaluation and analysis of official documents of the BWC. For the theoretical base, it draws mainly on the work of Bernauer and Ruloff, in addition to several other experts in the field.

2. Theoretical Background

All of the three non-conventional arms control treaties (NPT, BWC and CWC) include articles that deal with the matter of cooperation between their members in the field of peaceful use of the technologies within their scope (Articles IV, X and XI, respectively). To better address the central questions of this thesis, the following subchapters will examine the importance of cooperation articles in the NPT, BWC and CWC through the theoretical framework of Bernauer and Ruloff regarding positive incentives in arms control treaties, after which the development of the cooperation norm within the BWC (in addition to the NPT and CWC) and its relation to other norms within the regime will be presented through the work of Müller, Becker-Jakob and Seidler-Diekmann.

2.1 Positive Incentives in Arms Control Treaties[29]

In their scientific work, The Politics of Positive Incentives in Arms Control, Bernauer and Ruloff subscribe to the theory that in order for an international cooperation venture to work (in this case, a multi-lateral arms control treaty), there has to be an acceptable balance of costs and benefits for all parties involved. According to Bernauer and Ruloff, incentives are a type of benefit that are what is given to a certain party to influence its behavior in a certain field (e.g. disarmament and non-proliferation), by offering it something extra that falls outside the scope of the field in which the change of behavior is desired (e.g. aid). A distinction between endogenous and exogenous incentives is also made, wherein the endogenous incentives are provided for within the treaty regime and the exogenous incentives without.

If we consider that the objective of the BWC is to attract membership in order to promote the disarmament and non-proliferation norm relative to biological weapons (BW), then the promise of cooperation in peaceful use of biological agents and technologies lies outside the scope of disarmament and non-proliferation. This type of transaction is referred to as issue-linkage or contingent action, which can be divided into three types: exchange, extortion and explanation. Exchange occurs when a positive incentive is offered and accepted in return for giving up a certain class of weapons that it would otherwise need in order to fulfill its security needs. In this type, we see that both parties got something out of the bargain that made them better off. This is referred to as

[29] cf. Bernauer, T.; Ruloff, D (1999). The Politics of Positive Incentives in Arms Control. Columbia, SC. University of South Carolina Press. 1-46.

a Pareto-efficiency; "… where at least one of the actors involved [is] better off and no actor is worse off"[30]. In cases of extortion types of issue-linkage, we find the receiving party misrepresenting their intentions and preferences (e.g. claiming that they will seek to obtain a certain type of weapon) in order to extort positive incentives out of the giving party. Finally, in explanation, the issue-linkage is not constructed, but rather inherent to the receiving state. Here, the receiving state will explain to the giving state that it cannot fulfill certain disarmament obligations due to technical or financial factors. Whether a contingent action qualifies as exchange, extortion or explanation depends on the resulting relation between cost and benefit for both the giving and receiving state.

For the purposes of this thesis, it will be assumed that Art.X is an exchange type of issue-linkage.

Keeping in mind the contingent action theory, it becomes clear why having positive incentives endogenous to a regime such as the BWC is such a salient factor in attracting members. What it does not clarify is how these incentives contribute to the relevance and survival of an arms control regime in the long run, since the only definition that Bernauer and Ruloff offer for effectiveness of positive incentives is if they succeed in changing the behavior of the receiving party in the direction desired by the giving party. It does not take into account the eventuality of one party defaulting on previously promised incentives. At the very least, it helps shed some light on why such cooperation norms were established in arms control regimes in the first place.

2.2 Norm Dynamics in Arms Control Treaties[31]

In a very well-structured piece of work, Müller et al. provide a clear overview of the raison d'être of the NPT, BWC and CWC, their normative structure, regime conflicts and norm dynamics.

They point out that the five central norms of the BWC are the norms not to develop, produce, stockpile or acquire BW (Art.I), to destroy exiting BW (Art.II), not to transfer BW or means to produce them to anyone (Art.III), to assist each other in case of BW attack (Art.VII) and to cooperate on use for peaceful purposes (Art.X). They argue that

[30] Bernauer, T.; Ruloff, D (1999). The Politics of Positive Incentives in Arms Control. Columbia, SC. University of South Carolina Press. 1-46.

[31] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

the BWC has experiences a state of "simultaneous dynamism and statis[32]" when it comes to norm development. For example, despite several efforts to establish a verification system for compliance none have borne fruit. Attempts at strengthening transparency have also not been very effective due to subpar participation in CBMs. On the other hand, more significant progress could be made in areas such as biosafety and biosecurity. Another attempt to strengthen and/or develop norms has come in the form of intersessional meetings of States Parties and experts. But despite their contribution to enhanced understanding between States Parties, they offer only recommendations that are not legally binding. It is their understanding that the importance of Art.X has risen recently due to development in the biotechnological sector and the importance of public health issues. Nevertheless, they rightly point out that not all States Parties are pleased with this new found spotlight on the cooperation issue, arguably due to fears that it would tip the saliency scale away from 'classic' norms such as those enshrined in Art. I, II and III.

Müller *et al.* classify the dynamic between the non-proliferation norm and the technological exchange norm not only as the biggest regime conflict of the BWC, but as "one of the political problems in the regime". This great importance stems from the polarizing effect it has had within the regime and the hindrances that poses to progress and development within the BWC. A valid point that they present is that this conflict has also been instrumentalized and even used as a "proxy for other political disputes and objectives". After all the attention the issue has received, the Western Group (WG) realized that it must engage the NAM on this matter.

The implementation of Art.X is currently a standing item of the agenda of the third ISP in preparation for the eighth RevCon of 2016. It remains to be seen whether progress will materialize.

The second regime conflict that Müller *et al*. allude to is that of verification and compliance. It is in their view, as is the view of this work, that all conflicts within the BWC regime are connected to the lack of a verification system.

[32] Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

2.3 Summary

Due to the existence of cooperation and technology transfer clauses in all three major arms control treaties, the bulk of scientific literature on the subject either addressed the issue in all three or, if it does focus on only one of the treaties, is still applicable to the other two. In The Politics of Positive Incentives in Arms Control, Bernauer and Ruloff argue that an equitable distribution of costs and benefits is essential to the success of international cooperation. They understand that a part of the benefits manifests itself in arms control treaties in the form positive incentives, which are offered to a specific party in order to influence their behavior in certain field. Positive incentives are defined as 'goods or services' offered in a field different to that of the field in which the change of behavior is desired. This sort of transaction is called issue-linkage or contingent action, which is then divided into three subtypes: exchange, extortion and explanation. A further distinction that they make is once between endogenous positive incentives – those that are 'built-in' to the regime – and exogenous ones.

According to the definitions offered by Bernauer and Ruloff, Art.X of the BWC qualifies as an endogenous, exchange type of positive incentive, hence making clear its saliency for regime success.

The work by Müller et al. is not as theoretical as that of Bernauer and Ruloff, as it serves as more of a classification and mapping of the norm dynamic and regime conflict within the NPT, BWC, and CWC. For the BWC, they identify five central norms, one of which is the cooperation norm in Art.X. In their view, the BWC regime is in a state of "simultaneous dynamism and stasis[33]", given that some norms have developed, whereas some others have remained stagnant. An example of stasis is the cooperation norm, which they argue is one of the most divisive issues of the regime. Based on their work, this thesis has found grounds to further argue the salience of moving forward on the issue of cooperation within BWC and to question its effectuality.

[33] Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

3. Art. X of the BWC

3.1 The BWC: Historical Facts

Despite the prohibition of the use of bacteriological methods of warfare by the Geneva Protocol of 1925, the protocol made no mention of a ban on the development, production, stockpiling or acquisition and retention. It is for this reason that it was imperative to complement the Geneva Protocol with a more comprehensive treaty that would address aspects of prohibition that the Geneva Protocol didn't. It was not until fifty years later that this goal would be realized.

The BWC was the product of deliberations within the Eighteen-Nation Committee on Disarmament (ENCD) and the Conference on the Committee on Disarmament (CCD) between the years 1969 and 1971[34]. It is worth mentioning here that it was a paper submitted by the UK at a session of the ENCD that first[35] brought the matter to the attention of the Committee. The discussions culminated in the opening of the treaty for signature on Apr 10, 1972 and later entered into force, with 43 member states on March 26, 1975, making it the first treaty to ban an entire class of weapons[3637].

The BWC currently boasts 173 member states and 9 signatories, whereas only 14 remain non-signatories[38]. The member states have organized themselves into 3 regional blocs: the Eastern European Group (EG), the Group of the Non-Aligned Movement and Other States (NAM) and the Western Group (WG)[39]. As is mandated by Article XII (Art.XII) of the Convention, the first Review Conference (RevCon) took place in March of 1980

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[34] UNOG (n.d). History of the BWC. UNOG. Retrieved from: http://www.unog.ch/80256EE600585943/(httpPages)/BCFC1E62C47ED3EFC1257E520035344B?OpenDocument on Jun 26, 2015.

[35] Mention of a treaty for the prohibition and disarmament of biological weapons ca also be found in Article 2 of the Warsaw Pact.

[36] Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[37] BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

[38] UNOG (n.d.). Membership of the Biological Weapons Convention. UNOG. Retrieved from: http://www.unog.ch/80256EE600585943/(httpPages)/7BE6CBBEA0477B52C12571860035FD5C?OpenDocument on Jun 26, 2015.

[39] UNOG (n.d.). Regional Groups in the Biological Weapons Convention. UNOG. Retrieved from: http://www.unog.ch/80256EE600585943/(httpPages)/73C3C49BEA5621A0C12572DB00477B4A?OpenDocument on Jun 26, 2015.

and the BWC has held RevCons every five years since[40]. The following subchapters will look in more depth at the main results of each RevCon and emphasize those that are most pertinent to the subject matter of this thesis.

3.1.1 Review Conferences

As was mentioned above, Art.XII mandates the member states to the Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction – as its full name reads – to hold a review conference five years after its entry into force. The Article states: "Five years after the entry into force of this Convention, or earlier if it is requested by a majority of Parties to the Convention by submitting a proposal to this effect to the Depositary Governments, a conference of States Parties to the Convention shall be held at Geneva, Switzerland, to review the operation of the Convention, with a view to assuring that the purposes of the preamble and the provisions of the Convention, including the provisions concerning negotiations on chemical weapons, are being realized. Such review shall take into account any new scientific and technological developments relevant to the Convention.[41]"

3.1.1.1 The First Review Conference

The First RevCon was held on March 3-21, 1980 in Geneva. In its final document, the preamble "affirmed" that the convention should not only pose no hampering to economic and technological development, but should in fact foster it by ensuring full and effective cooperation between States Parties to the convention. The final document didn't stop there and went on to address the issue of cooperation and assistance for the peaceful use of biological agents and technologies, as provided for in Art.X, in the body of the document. The convention recognized the rising interest of developing countries party to the convention to reap the benefits of their ascension to the BWC. The final document called upon States Parties, especially the developed countries, to "increase, individually, or together with other States or international organizations, their scientific and technological co-operation, particularly with developing countries, in the peaceful

[40] Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.
[41] Full text of the convention can be found on: http://www.opbw.org/convention/conv.html

uses of bacteriological (biological) agents and toxins" [42]. The final document also detailed what is meant by 'scientific and technological co-operation' by stating that it "should include, inter alia, the transfer and exchange of information, training of personnel and transfer of materials and equipment on a more systematic and long-term basis."[43] Since then, it has been the issue of the 'transfer of materials and equipment' that has been most problematic in terms of the provisions of Art.X. Chapter 3.3 will look at this issue more closely.

Additionally, the First RevCon decided to hold a Second RevCon that was to be held no sooner than 1985, but no later than 1990. Furthermore, the First RevCon's final document requested the United Nations Secretariat to include information on national implementation measures of Art.X in the background materials prepared for the Second RevCon.[44]

3.1.1.2 The Second Review Conference

During the Second RevCon, Art.X received quite a lot of attention, with 11 States Parties submitting proposals regarding its implementation. Also, the RevCon's final document made a great deal of reference to it. Regarding Article III (Art.III) of the convention, which deals with the ban on "transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of [the] Convention"[45], the conference decided that the formulation is comprehensive enough that it also includes non-state actors and thus brought the matter of bioterrorism into the scope of the BWC. The final document went on to ensure that Art.III should in no way be interpreted in a way to interfere with the provision of Art.X. The RevCon also introduced the idea of the States Parties partaking in Confidence Building Measures (CBMs). The idea was that by (voluntarily) submitting annual reports regarding information on national high-containment facilities, information on outbreaks of

[42] BWC/CONF.I/10 (1980). Final Declaration of the First Review Conference. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015.
[43] BWC/CONF.I/10 (1980). Final Declaration of the First Review Conference. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015.
[44] cf. *Ibid.*
[45] BWC/CONF.II/13/II (1986). Second Review Conference Final Declaration. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015

infectious disease would decrease ambiguities and foster trust through transparency. The second RevCon linked CBMs to building trust among States parties, which would result in better implementation of Art.X. Also, It was decided upon that an ad hoc meeting of experts would be held in 1987 to finalize how the CBMs system will operate. It is important to note that there is no penalty for failure to submit CBMs. Although "a total of 116 States have submitted CBMs at least once [,] [o]nly 8 States have submitted CBMs every year since 1987[,] 26 States submitted CBMs every year between the Fourth and Fifth Review Conferences, whilst 25 States have submitted CBMs every year since the Fifth Review Conference. 43 States have submitted CBMs every year between the Sixth and the Seventh Review Conferences"[46], which hardly makes it a comprehensive process, when it comes to clearing up ambiguities and easing concerns about non-compliance.

The formulation of the text tied the issue of ambiguity regarding compliance to strengthening the implementation of Art.X. Later in the final document, the gap in economic and technological development between the developed and developing States Parties was highlighted, and developed member states were 'urged' to increase their cooperation with other member states, especially developing states, on matters provided for under Art.X.

Finally, the RevCon also decided that a third RevCon would be held no later than 1991.[47,48]

3.1.1.3 The Third Review Conference

It was in the final document of the third RevCon, which was held on Sept 9-27, 1991, that the convention decided that future RevCons will always be held every five years. But this was not its most notable feat. Recognizing the importance of verification for the effectiveness of the convention, the final document of the RevCon included provisions for the creation of an ad hoc group of experts that would look into possible compliance verification measures for the BWC from a technical and scientific perspective. This

[46] BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

[47] cf. *Ibid.*

[48] cf. BWC/CONF.II/13/II (1986). Second Review Conference Final Declaration. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015

group of 'verification experts', which came to be known as VEREX, was to meet between March 30 and April 10, 1992. VEREX met four times between 1992 and 1994 and was successful in submitting a final consensus report to the BWC, which included 21 measures, divided into on-site and off-site measures that the group had identified. In September 1994, the States Parties to the BWC held a Special Conference in order to discuss the VEREX's findings and decide on what steps will be taken to move forward. The conference decided that a group of experts would be created "to consider appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention[49]", which came to be known as the Ad Hoc Group (AHG). The AHG held five meetings in 1994 and 1995, but it failed to produce a final report before the Fourth RevCon. More detailed information on the work of VEREX and the AHG is provided in chapter 3.1.2.

As for developments regarding Art.X during the third RevCon, very little changed in the tone and measures advised by the conference regarding strengthening its implementation since the final document of the second RevCon. Once again, the importance of cooperation for peaceful uses of biological agents and technologies was reiterated in the preamble and the text of the final document. The conference did, however, recognize the benefit of having an institutional body to regulate the transfer of knowledge and materials.[50,51]

3.1.1.4 The Fourth Review Conference

Art.X was one of the central issues during the fourth RevCon, alongside Articles I and V. The RevCon took place between Nov 25 and Dec 6, 1996 and made several recommendation regarding better implementation of Art.X. It is clear from the formulation of the items under Art.X in the final document of the fourth RevCon that the issue of institutionalization is salient to strengthening cooperation under Art.X, with 5 out of the 17 items making reference to it. As mentioned above, the AHG wasn't able to

[49] Tucker, Jonathan B (1995). Strengthening the Biological Weapons Convention. Arms Control Today, vol.25, no.3, April 1995. 10. As cited in Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[50] cf. Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[51] cf. BWC/CONF.III/23 (1991). Third Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction: Final Document. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015.

produce a final document before the beginning of the fourth RevCon and thus had its mandate extended until the fifth RevCon in 2001. A further development during the fourth RevCon was a recommendation by Iran to add the prohibition of the 'use' BW to Article I (Art.1). The BWC text only implicitly prohibits the use of BWs.[525354]

3.1.1.5 The Fifth Review Conference

In the lead up to the fifth RevCon, it was clear that work of the AHG was going to be a point of conflict. During the meetings of the AHG between Apr 23 and May 11, 2001 rumors were already in circulation that the US would reject the Protocol of the AHG. In the following meeting of the AHG in July 2001, which was its final meeting, Feakes and Littlewood have reported that the US made its long-awaited position very clear in its statement that "United States has concluded that the current approach to a Protocol ... is not, in our view, capable of achieving the mandate set forth for the Ad Hoc Group of strengthening ... the Biological Weapons Convention ... We will therefore be unable to support the current text - even with changes - as an appropriate outcome of the Ad Hoc Group efforts."[55] Naturally, this statement by the US was detrimental to the AHG process and obliterated its chances for continuation. Nevertheless, the US went on in its statement to ensure the conference that it was committed to the essence of the mandate of the AHG's work and to strengthening the BWC. It went to say that the following steps to be taken should involve "thinking outside the box". No such measures were suggested by the US at any later point.

The fifth RevCon was held between Nov 19 and Dec 7, 2001. On its final day the conference was suspended after conflicting views among the States Parties made it impossible to reach consensus on a final document. The main reason attributed to this suspension was a proposal made by the US delegation to terminate the work of the AHG and replace it with a different process. This was no small matter given all the hard work

[52] cf. Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[53] cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

[54] cf. BWC/CONF.IV/9 Part II (1996). Fourth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction: Final Document. Geneva. Retrieved from: http://www.opbw.org/ on Jun 27, 2015.

[55] Feakes, Daniel; Littlewood, Jez (2002). Hope and ambition turn to dismay and neglect: The biological and toxin weapons convention in 2001. Medicine, Conflict and Survival, 18:2, 161-174.

and time that the remaining States Parties had invested in the work of VEREX and the AHG and was tantamount to what can be described as rendering the efforts undertaken between 1991 and 2001 as a "lost decade for biological disarmament"[5657].

The fifth RevCon was resumed in November, 2002, during which a "rescue plan" to revive the processes towards achieving the goals of the AHG was proposed by its former Chairman, Amb. Tibor Tóth of Hungary. The proposal called for holding two annual meetings of States Parties and experts that had clear, defined topics, which would later report to the Sixth RevCon. These meetings came to be known as the intersessional process (ISP).[58]

The suspended session of the fifth RevCon was the first time a final document couldn't be agreed upon within the allotted 3-week timeframe.

3.1.1.6 The Sixth Review Conference

After the debacle of the fifth RevCon, the outcomes of the sixth RevCon, which was held between November 20 and December 8, 2006, were hailed as a great success. It endorsed the outcomes of the first intersessional meetings and decided to hold a second round of the intersessional process in the period 2007-2010. In regards to Art.X, the conference, more or less, reiterated what the second, third and fourth conferences had stated.

In what was touted by some, including the President of the sixth RevCon. Amb. Masood Khan, as being a great success, the conference decided to establish an institutional body to support the conference. The resulting body was, aptly named, the Implementation Support Unit (ISU).[59,60,61]

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[56] *Ibid.*
[57] cf. *Ibid.*
[58] cf. Sims, Nicholas A. (2007). The Future of Biological Disarmament. The Nonproliferation Review, 14:2, 351-372.
[59] cf. Sims, Nicholas A. (2007). The Future of Biological Disarmament. The Nonproliferation Review, 14:2, 351-372.
[60] [60] cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.
[61] cf. UNOG (n.d.). Role of the Implementation Support Unit. UNOG. Retrieved from: http://www.unog.ch/80256EE600585943/(httpPages)/F8521A510F455706C12573A6003F49F2?OpenDocument on Jun 28, 2015.

Apart from the establishment of ISU, which in itself is a laughable attempt at institutionalization, the sixth RevCon can be viewed as a little more than an effort at 'healing' the BWC after the events of the fifth RevCon.

3.1.1.7 The Seventh Review Conference

Despite the mild language of the final document of the seventh RevCon, some argue that the mood at the conference was remarkably positive, and that although the progress can only be described as minimal, it still qualifies as quite a feat given the shortcomings of the fifth and sixth RevCons. One of the central topics discussed at the conference was the implementation of Art.X. At the conclusion of the RevCon, the States Parties were able to agree on offering sponsorship for developing countries in order for them to be able to attend BWC meetings, to set up a global database that would match offers with requests in regards to assistance and cooperation under the provisions of Art.X and, last but not least, Art.X was added as a standing agenda item of the third intersessional process (ISP) of 2012-2015.

Another issue that grabbed the spotlight was how much weight would the outcomes of the ISP carry? The ISP meetings have thus far had no decision making authority, but States Parties were cautious in their approach to this question, probably due to fear of agreeing to something that they cannot control the outcome of. [62,63]

The seventh RevCon struck a "balanced minimalism[64]" and its 'success' was easily upstaged by the attendance of then US Secretary of State, Hillary Clinton.

3.1.2 VEREX and the Ad Hoc Group

As was previously mentioned in chapter 3.1.1.3, the third RevCon established VEREX, which is a group of experts that were tasked with examining technical and scientific measures to verify the compliance of States Parties to the BWC with the provisions of Art.I. The group, which met 4 times: twice in 1992 and twice in 1993, identified 21 different measures, which were divided into on-site and off-site measures. "Surveillance of scientific publications, data declarations, notifications of activities, remote sensing,

[62] cf. Moodie, Amanda (2011). Lucky Number Seven? The 2011 Biological Weapons Convention Review Conference. CNS Feature Stories. Retrieved from: http://cns.miis.edu/stories/111223_bwc_revcon_2011.htm on Jun 27, 2015.

[63] cf. Becker-Jakob, Una (2013). Balanced minimalism: the Biological Weapons Convention after its 7th Review Conference. Hessische Stiftung Friedens- und Konfliktforschung (Ed.). Frankfurt am Main, 2013 (PRIF Reports 120).

[64] *Ibid.*

and environment sampling and analysis were included as possible "off-site" measures, while possible "on-site" measures included scientific exchanges, visual inspection, interviews, identification of relevant equipment, sampling and analysis and continuous monitoring with cameras or other sensors[65]". The VEREX group concluded that due to the highly dual-use nature of biological agents no verification method could conclusively and comprehensively be able to assure compliance with Art.I, but that the identified measures, when used in combinations, could contribute largely to strengthening the convention by helping to distinguish between legal and illegal activities.

Despite coming under harsh criticism from the NAM states for its Art.I centric approach and lack of attention toward developmental aspects, the BWC held a Special Conference in 1994 to discuss the VEREX report and the steps that would follow. In the Special Conference, the member states decided to establish the AHG. The AHG was tasked with the "consider[ation of] appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention, to be included, as appropriate, in a legally binding instrument to be submitted for the consideration of the States Parties[66]". As the excerpt suggests, the mandate of the AHG was not limited to the matter of verification, but also included other aspects. Those included the creation of lists of biological agents, their threshold quantities and relevant technical equipment that are relevant to the scope of the BWC, examining measures to enhance the CBM process and, most pertinently for the purposes of this thesis, ways to strengthen cooperation under Art.X. Nevertheless, the issue of including Art.X in the mandate of the AHG was still a controversial decision, with some regarding it as a pacifier for the NAM states. A major breakthrough for Art.X came in 2000, when the proposal by NAM states regarding the establishment of a Cooperation Committee as part of the envisioned Organization for the Prohibition of Biological Weapons (OPBW) gained general acceptance within the AHG.

[65] Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.

[66] BWC/SPCONF/1. Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction: Final Report. Geneva. Retrieved from: http://www.unog.ch/bwcdocuments/1994-09-SPEC/BWC_SPCONF_01.pdf (PDF-Version) on Jun 27, 2015.

Up until 2000 the negotiations had been going quite well, but then started to stall and pressure began to mount on the Chairman of AHG, Amb. Tibor Tóth of Hungary, to issue a new text and replace the existing draft of the Protocol that was called the "rolling text". This new text was to move away from the existing issue-by-issue approach and toward a more holistic and 'watered-down' tone. This move was met with resistance by some countries, but they later got behind the redraft of the AHG Protocol that was presented by Tóth.[67,68]

The hopes pinned on the AHG process came crashing down after the US announced that it rejected the final report in the final meeting of the AHG and later called for the termination of its operation during the fifth RevCon.

3.1.3 The Implementation Support Unit

As mentioned in 3.1.1.6, the Implementation Support Unit (ISU) was established by the sixth RevCon. The second, third and fourth RevCons had already touched upon the issue of institutionalization[69] and realized that the establishment of such a body was vital, so that it can help strengthen the work of the convention. Its mandate was limited to the following:

> *"A. Administrative support:*
>
> *(i) Providing administrative support to and preparing documentation for meetings agreed by the Review Conference;*
>
> *(ii) Facilitating communication among States Parties and, upon request, with international organizations;*
>
> *(iii) Facilitating, upon request, States Parties' contacts with scientific and academic institutions, as well as non-governmental organizations;*
>
> *(iv) Serving as a focal point for submission of information by and to States Parties related to the Convention;*

[67] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.
[68] cf. Feakes, Daniel; Littlewood, Jez (2002). Hope and ambition turn to dismay and neglect: The biological and toxin weapons convention in 2001. Medicine, Conflict and Survival, 18:2, 161-174.
[69] See 3.1.1.2, 3.1.1.3 and 3.1.1.4.

(v) Supporting, as appropriate, the implementation by the States Parties of the decisions and recommendations of this Review Conference.

B. Confidence Building Measures:

(i) Receiving and distributing confidence-building measures (CBMs) to/from States Parties;

(ii) Sending information notices to States Parties regarding their annual submissions;

(iii) Compiling and distributing data on CBMs and informing on participation at each Meeting of States Parties;

(iv) Developing and maintaining a secure website on CBMs to be accessible only to States Parties;

(v) Serving as an information exchange point for assistance related to preparation of CBMs;

(vi) Facilitating activities to promote participation in the CBM process, as agreed by the States Parties."[70]

When we closely examine the wording of mandate, it is quickly clear that the ISU work is primarily secretarial, with no enforcement capabilities whatsoever. The seventh RevCon added to its mandate the set up and oversight over a cooperation database, on which States Parties could post offers and requests for cooperation, in an effort to strengthen implementation of Art.X. The access to request listings is restricted to States Parties, but the offers, on the other hand, are public.

Since its setup in 2012, there has been a total of 29 offers[71] made by 5 States Parties and one group of States (Canada, France, Germany, UK, US and the AG). All offers center on public health, capacity building, educational opportunities and help with CBM

[70] BWC/CONF.VI/6 (2006). Fourth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction: Final Document. Geneva. Retrieved from: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G07/600/30/PDF/G0760030.pdf?OpenElement on Jun 28, 2015.

[71] Updated offers have not been counted.

complication[72]. Naturally, it is not possible to gauge with certainty how much affect this database has had for two reasons. Firstly, there is no open-access information available about whether some States Parties have made use of the offers made and secondly, there has been no concrete mention of whether the NAM states find these offers satisfactory. The NAM has rather chosen to recycle the same rhetoric it has so far on the issue, with the addition of the high hopes it attaches to the operation of the new database[73,74]. However, in its statement at the meeting of States Parties in 2012, Iran did refer to its desire to see further cooperation in the field of 'technology transfers', in which it signals an interest in more tangible cooperation, as opposed to the 'softer' aid that has been offered by developed states so far[75]. It is, however, worth questioning the reasons behind the small number of requests posted. Given that this has been such a major issue within the regime and for NAM states in specific, one would imagine that the ISU database would be flooded with requests. This raises two questions: were the demands purely political theatre with no real need behind them, and is it only a handful of countries that is being left out of bilateral cooperation and are forced to go through the ISU channels?

The ISU is a rather an insignificant 'supporting institutional body' when compared with its counterparts, such as the NPT's IAEA and the CWC's OPCW, in regards to mandate

[72] See ISU's list of offers on: http://www.unog.ch/80256EDD006B8954/(httpAssets)/267791D1D5FFFF46C1257E4C0054B901/$file/Table+-+offers+to+provide+assistance+-+Feb2015+-+public+area.pdf. Retrieved on Jul 13, 2015.

[73] cf. Permanent Mission of the Islamic Republic of Iran to the UN institutions in Geneva (Dec 2, 2014). Statement On behalf of the Non-Aligned Movement and Other States Parties to the BWC on International cooperation with a focus on the full, effective and nondiscriminatory implementation of Article X. Meeting of States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Geneva, 1-5 Dec, 2014. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/7C051C345BD0C564C1257E2D00524427/$file/NAM+statement+on+Article+X-+MSPs+2014.pdf on Jul 13, 2015.

[74] cf. Statement by Iraq (Aug 12, 2013). International assistance and cooperation and their role in convention implementation. Meeting of States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, Geneva, 13-19 Dec, 2013. Retrieved from: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G13/624/31/PDF/G1362431.pdf?OpenElement on Jul 13, 2015.

[75] Counselor of the Permanent Mission of the Islamic Republic of Iran to the UN institutions in Geneva (Jul 17, 2012). Statement on S&T Developments. Before the Meeting of Experts of the BWC. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/686067724DCFFC03C1257A400050B589/$file/Iran++statement+on+science+and+technology+17+july+2012.pdf on Jul 13, 2015.

and size. The ISU consists of three members of staff and is housed in the UNODA in Geneva. Whether the size, mandate or funding of the ISU will increase is unclear.[76,77]

3.2 Discourse regarding Art.X within the regime and in academia

As was already discussed in previous chapters, all arms control treaties are based, more or less, on the same tripod of elements: Disarmament and prohibition, monitoring and verification, and cooperation and assistance in peaceful uses of the technologies and in all these treaties we find that states parties are at odds in trying to reconcile their disarmament obligations with the obligation to engage in cooperation and exchange with regards to the technologies covered by the treaties. The 'usual suspects' in this conflict of priorities seem to always be the developed states versus the developing states. Within the BWC, the conflict arises from the seeming contradiction between Art.III, which states that "[e]ach State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of this Convention"[78], and Art.X, under which States Parties to the BWC are obliged 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 bacteriological (biological) agents and toxins for peaceful purposes[79]", with members from developed states saying that fulfillment of their obligation under Art.III supersedes their obligations under Art.X. This stems, in part, from their view that the BWC is first and foremost a non-proliferation treaty. Another factor that further complicates this conflict of norms is the high dual-use potential of biological agents and technologies. This is made even worse by the fact that the BWC has no verification system whatsoever.

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[76] cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

[77] cf. Sims, Nicholas A. (2007). The Future of Biological Disarmament. The Nonproliferation Review, 14:2, 351-372.

[78] Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (1972).

[79] *Ibid.*

Nevertheless, the developed member states still recognize the saliency of Art.X as a positive incentive for states to join the convention. This was certainly true in the case of many developing states, who ascended to the BWC with high hopes of gaining access to technology that was off limits to them before, and with rapid growth within the biotechnological sector from 1980 onward, the focus on Art.X grew stronger[80,81], as is evident upon examination of the final documents of RevCons[82].

Within the regime, the problematic relating to the implementation of Art.X was only vaguely discussed up until 1990. This changed when the final document of the third RevCon in 1991 included a decision to have reports regarding implementation of Art.X submitted to the UN Secretariat. Another factor that made the debate more prominent was the harsh critique by NAM states of VEREX – another decision made during the third RevCon – due to its lack of focus on developmental aspects. Although the WG insisted that the work of VEREX would not hamper cooperation under Art.X, NAM states saw in it another layer of export controls. This reaction of the NAM was somewhat pacified when the Special Conference of 1994 included the examination of measures to strengthen cooperation under Art.X to the mandate of the AHG, which was established to develop a legally binding protocol based on the finding of VEREX. The AHG made significant strides when it came to ways of strengthening Art.X, most notably through the establishment of a so-called Cooperation Committee within the envisioned OPBW. By early 2000, most states were in general agreement in regards to the 'rolling text' of the AHG until the whole process fell apart when the US withdraw its support of it.

During the sixth RevCon, the NAM submitted a proposal for an 'Action Plan' for Art.X, which requested, inter alia, that States Parties review their national regulations concerning export control and limitation of technological and scientific exchange; that concrete action is taken to promote cooperation, especially with developing countries; that States Parties contribute financially and technologically to capacity building and share research results that relate to the scope of the Convention. This proposal didn't

[80] cf. Becker-Jakob, Una (2011). Notions of Justice in the Biological Weapons Convention. PRIF Working Paper No.9. Frankfurt.

[81] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.

[82] See 3.1.1

gain enough momentum during the sixth RevCon, which was primarily about 'rescuing' the BWC after the event of the fifth RevCon and felt that such an issue wasn't important at the time. In its statement on behalf of the NAM in the seventh RevCon, Iran once more addressed the 'Action Plan', adding yet more items to it. Whether there will be any developments in regards to this is unclear.

The prominence of Art.X within regime debates was cemented once more when it was added as a standing item to the 3rd ISP. Despite the volume of the debate surrounding Art.X, it lacks substance. As Iris Hunger put it: the States Parties are sticking to 'rhetorical behavior' and preforming an "empty ritual of predictable arguments[83]" instead of realistically dealing with the issue's particulars and engaging in a constructive 'arguing mode'. There is little, if any, disagreement on the importance of Art.X among States Parties, yet when it comes to finding practical solutions, it seems that none have any ideas. This is evident when one takes into consideration that only three working papers concerning Art.X were submitted to the seventh RevCon (by South Africa, NAM and Iran). [84,85,86]

It is worth mentioning that it is the view of some academics that cooperation on peaceful uses of biological agents and technologies might be better dealt with outside the BWC regime.[87]

Following is an overview of the debate regarding specific issues relating to Art.X.

3.2.1 The debate regarding export controls

After having been a central grievance within the BWC, the issue of export controls seems to have lost its notoriety and given rise to the problematic of Art.X. This change can attributed to two aspects: (a) export controls have come to be seen as a non-

[83] Sims, Nicholas A. (2015). What future for biological disarmament?. Presentation at the civil society event commemorating the 40th anniversary of the entry into force of the Biological and Toxin Weapons Convention, 30 March 2015. Geneva. Retrieved from: http://www.the-trench.org/future-biological-disarmament/ on Jun 28, 2015.

[84] See footnotes 42 and 43.

[85] cf. Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

[86] Littlewood, Jez (2011). Steering the debate in a practical direction. Civil society preparations for the 7th BWC Review Conference 2011. Retrieved from: http://www.bwpp.org/revcon-articlex.html on Apr 24, 2015.

[87] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.

proliferation tool, as opposed to a good that the soviet bloc is denied and (b) the developed state of the biotechnological sector in some developing countries, which have themselves become 'givers'. Nevertheless, Iran remains vocal on the issue, although not so much due to the existence of export controls, but rather because it claims they are discriminatory. It is not difficult to understand Iran's claim given that the main body regulating transfer of biological agents and technologies is an unofficial body of 42 states, most of which are western state and none of which are NAM states, known as the Australia Group (AG). Since 1991, the AG has taken upon itself to "use licensing measures to ensure that exports of certain chemicals, biological agents, and dual-use chemical and biological manufacturing facilities and equipment, do not contribute to the spread of CBW" and it does this "by harmonising participating countries' national export licensing measures"[88]. NAM states have heavily criticized not only the decisions of, but the very existence of the AG. It is the view of the NAM that given their membership in the BWC, they shouldn't be subjected to such controls. To complicate the situation further, the NAM has no overview of or any power in decisions made by the AG. Members of the AG have constantly rejected calls to abolish it and continue to view it as part of the fulfillment of their Art.III obligations and citing concerns regarding the compliance of some States Parties to Art.I, disregarding that the convention already contains provisions to deal with issues of non-compliance concerns. It is the view of some that the AG is a tool to protect the economic interests and technological superiority of its members.[89,90,91]

Additionally, the US has even argued that export controls are in fact beneficial to better implementation of Art.X, stating that its export control and licensing system is efficient and helps exports run in a faster and more effective manner[92].

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[88] Both quotes: Objectives of the Group. The Australia Group. Retrieved from: http://australiagroup.net/en/objectives.html on Jun 30, 2015.

[89] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.

[90] cf. Becker-Jakob, Una (2011). Notions of Justice in the Biological Weapons Convention. PRIF Working Paper No.9. Frankfurt.

[91] cf. Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

[92] cf. Report on USA Implementation of Article X of the Convention (Jul 13, 2012). Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of

3.2.2 The debate regarding universalization

Although academics agree on the value of positive incentives in enticing countries to join an arms control treaty, that being Art.X in the BWC, it is the view of some that, in its current state of implementation, the BWC provides little incentive for new members. On the other hand, some argue that the matter of the universalization of the convention isn't as important as it used to be, arguably due to a low threat perception regarding the use of BW.[93,94,95]

3.2.3 The debate regarding the 'weight' of Art.X

Sims has argued that the developmental aspects were only of secondary importance when the treaty of the BWC was initially conceived and that "Article X has been re-interpreted beyond what the drafters of the Convention envisaged[96]". It has, however, become one of the most intensely debated aspects of the BWC, so much so, that it "has come to be the principal criterion, or one of the key criteria, by which many of its parties judge its success[97]". The NAM, on the other hand, sees all articles of the BWC as equally important and they have given Art.X yet more importance by linking it with the 'justness' of the convention. According to Una Becker-Jakob, the 'justicization' of Art.X by the NAM suggests that the discourse within the BWC is a part of a 'bigger picture' and that Art.X is being used as a proxy for existing anti-West sentiments and

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Bacteriological and Toxin Weapons and Their Destruction. Meeting of Experts, July 16-20, 2012. Geneva. Retrieved from: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G12/615/60/PDF/G1261560.pdf?OpenElement on Jul 13, 2015.

93 cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

94 cf. Gould, Chandré (2011). Making Article X work: practical considerations for implementation of Article X beyond 2011. Civil society preparations for the 7th BWC Review Conference 2011. Retrieved from: http://www.bwpp.org/revcon-articlex.html on Apr 24, 2015.

95 cf. BWC ISU (n.d.). Biological Weapons Convention: Background information. BWC ISU. Retrieved from: http://www.unog.ch/80256EDD006B8954/(httpAssets)/8A890D8E4841D06CC1257D01005281E9/$file/BWC-Background_Inf_Nov%202012.pdf (PDF version) on Jun 26, 2015.

96 Sims, Nicholas A. (2001). The Evolution of Biological Disarmament. SIPRI Chemical & Biological Studies no. 19. Oxford. 120. As cited in Littlewood, Jez (2011). Steering the debate in a practical direction. Civil society preparations for the 7th BWC Review Conference 2011. Retrieved from: http://www.bwpp.org/revcon-articlex.html on Apr 24, 2015.

97 *Ibid.* As cited in Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

tensions. Zmorzynska and Jeremias have also identified 'justicization' as one of two emerging trends in the Art.X debate.[9899100]

3.2.4 The debate regarding Official Development Assistance (ODA)

As mentioned in 3.2.3, Zmorzynska and Jeremias had identified two emerging trends in the Art.X debate. The second is the focus on public health. In their view, this might be due to the nature of public health as being an issue that all can agree on, although remaining a much more 'securitized' issue for the West. This has resulted in the West preferring to 'repackage' its existing aid towards public health issues under ODAs as fulfillment of Art.X obligations. Naturally, the NAM appreciates this initiative from the West, but it would still rather receive cooperation of a more technical nature. Hunger has also argued that the West asses its cooperation under ODAs as sufficient cooperation of Art.X and is not likely to increase it.[101,102]

This 'repackaging' maneuver is not a secret. It is referenced in reports by States Parties on their implementation of Art.X[103]

3.3 Obstacles to full and proper implementation of Art. X

After all that has been mentioned so far in this chapter, it is not difficult to come to the conclusion that the implementation of Art.X has been a problematic and divisive issue within the BWC regime. Given the high dual-use potential of biological agents and

[98] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.
[99] cf. Becker-Jakob, Una (2011). Notions of Justice in the Biological Weapons Convention. PRIF Working Paper No.9. Frankfurt.
[100] cf. Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.
[101] cf. Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.
[102] cf. Hunger I. (2014). Regulating transfers of biological dual-use technology: the importance of a serious debate in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 137-140.
[103] See Official statements by Australia (2012), Japan (2012) and India (2013). Retrieved from: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G12/616/72/PDF/G1261672.pdf?OpenElement, http://www.unog.ch/80256EDD006B8954/(httpAssets)/2970D56334A72492C1257C3D00305CFA/$file/ADVANCE+-+BWC_MSP_2013_WP-Japan+Art+X+WP+combined.pdf and http://www.unog.ch/80256EDD006B8954/(httpAssets)/F51E04E513260EDBC1257D9E005DC268/$file/India_advance+copy+WP+for+the+website.pdf on Jul 13, 2015.

technologies[104] it will always be a concern of States Parties to transfer such materials as part of their implementation of Art.X if they have no way of knowing what happens to these materials after they have reached their importer, especially since there is mistrust some some States Parties, an issue that Sims has dubbed the BWC's "main weakness"[105]. Although the convention has worked on strengthening biosecurity and biosafety, it has thus far failed to develop a verification system akin to that of the NPT or the CWC. It did make meaningful steps towards this in the past, but did not follow through[106], thus leaving the BWC to become "an unverifiable nuisance[107]" for its States Parties. The inability of States Parties to verify the compliance of other States Parties to the convention with its provisions has made it even more difficult to make progress on the proper and full implementation of Art.X. The lack of a verification system and the lack of trust also affect another factor that impedes cooperation under Art.X, which is the issue of export controls. As was previously mentioned in 3.2.1, the AG is the only international body that has been regulating the movement of biological agents and technologies. The problem with having a body like the AG creating export controls is that not only is it not an official organ of the BWC, but it also does not include all, or even most, of the States Parties of the BWC as member. Moreover, complicating the issue is that membership has so far included a majority of Western countries, further aggravating the feeling of exclusion and injustice among the NAM states and leaving them with the feeling that the AG is tailoring its export controls according to the whims of its members. At this point it is worth mentioning that the members of the AG view it as a tool to promote non-proliferation and a fulfillment of their obligations under Art.III. [108] Whether or not this is the case is not relevant to the subject matter of this thesis. But the problematic nature of export controls is not only tied to the AG and its 'member's only' modus operandi. It is, in fact, part of a much larger issue negatively affecting the

[104] cf. Chittaranjan, Kalpana (2001). The BWC: A status report. Strategic Analysis, 25:2, 215-225.
[105] cf. Sims, Nicholas A. (2015). What future for biological disarmament?. Presentation at the civil society event commemorating the 40th anniversary of the entry into force of the Biological and Toxin Weapons Convention, 30 March 2015. Geneva. Retrieved from: http://www.the-trench.org/future-biological-disarmament/ on Jun 28, 2015.
[106] See 3.1.2
[107] Balmer, Brian; McLeish, Caitriona (n.d.). Understanding Biological Disarmament: The Historical Context of the Biological Weapons Convention. Retrieved from: https://www.ucl.ac.uk/sts/staff/balmer/AHRC_Final_Proposal_For_Web on Jun 27, 2015.
[108] See 3.2.1 and 3.2.3

process to strengthen Art.X, which is an imbalance in perceived costs and benefits of better implementation of Art.X for some States Parties. In the case of export control and the AG, developed states don't see the benefit of sharing their economic wealth and technological superiority with 'the others'. So, in the case of export controls, although Art.X might serve as a 'carrot' for developing states, it has become a 'stick' for the developed ones.

Another issue that falls under the category of imbalances of costs and benefits in the implementation of Art.X is the normative concept of universalization of the convention. As was mentioned in 3.2.2, the matter of universalization has become lackluster, perhaps due to a low threat perception. This has resulted in Art.X, which used to be thought of as an important tool to achieve the goal of universality, losing its salience. [109]

Additionally, as was mentioned in 3.2, the debate about the implementation has suffered from a lack of seriousness in addressing the issues in a practical and constructive manner. It has been reduced to a crossfire of empty rhetoric that lacks precision. Adding to the complexity of the debate is the difference of interpretation of what activities fall under 'cooperation' under Art.X. The article has been said to be "so loosely constructed as to mean almost anything that a government or individual invoking it wants it to mean[110]", making it easy for States Parties to deflect their obligations under it. Here it is once more worth asking ourselves: What might the cost of better defining or reforming the implementation of Art.X for some States Parties be?

3.4 Cooperation articles in the NPT and the CWC

As Jean Pascal Zanders put it, "[t]he rights and obligations flowing from non-security clauses in arms control and disarmament treaties has been a bone of contention between developed and developing countries for many decades"[111]. The following subchapters

[109] cf. Gould, Chandré (2011). Making Article X work: practical considerations for implementation of Article X beyond 2011. Civil society preparations for the 7th BWC Review Conference 2011. Retrieved from: http://www.bwpp.org/revcon-articlex.html on Apr 24, 2015.

[110] Sims, Nicholas A. (2001). The Evolution of Biological Disarmament. SIPRI Chemical & Biological Studies no. 19. Oxford. 120. As cited in Zmorzynska, Anna; Jeremias, Gunnar (2012). Managing Technology Transfers under the Biological and Toxin Weapons Convention. Non-Proliferation Paper No.21. EU Non-Proliferation Consortium. Retrieved from: http://www.sipri.org/research/disarmament/eu-consortium/publications/Nonproliferation-paper-21 on Jun 29, 2015.

[111] Zanders, J.P. (2014). Chemical Weapons Convention (CWC) Article XI and the future of the CWC in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 176-203.

will discuss the issues arising within the NPT and CWC regarding the implementation of cooperation clauses.

3.4.1 The Non-Proliferation Treaty

The NPT, the oldest of the arms control treaties, was opened for signature in 1969 and entered into force in 1970. It currently boasts 191 members divided into two main groups: The Nuclear Weapon States (NWS), a designation limited to States that have developed and tested a nuclear explosive device before the end of 1966 (United States, Russia, the United Kingdom, France, and China) and the Nonnuclear Weapon States (NNWS). It is this inherent inequality in rights and obligations under the regime that makes it different from the BWC and CWC, which universally ban their respective class of weapons[112,113]. Similarly to the BWC's predicament with the AG, the NPT has two supplier groups: the Zangger Committee and the Nuclear Suppliers Group (NSG). The IAEA, which precedes the NPT, "plays a central role under the Treaty in areas of technology transfer for peaceful purposes" and established the "safeguards", which make up the verification system of the NPT[114]. Nevertheless, it is important to point out here that one should be under no illusion that the IAEA safeguards aren't without their flaws. Most pertinently for the scope of this thesis is that the safeguards do not really extend to NWS. The IAEA can choose whether to conduct on-site inspections in NWS, but they are usually done on a small scale and in a limited number of facilities[115].

Not all members of the IAEA are also members of the NPT which poses some challenges. Although the NPT was supposed to be able to provide its members with preferential treatment when it comes to technology transfers and cooperation, the IAEA can also provide the same for non-members of the NPT, putting the use of membership in the NPT into question. This issue is particularly important for the NAM, since they feel that preferential treatment in cooperation was the reason they joined the NPT in the first place. Furthermore, the IAEA focus on developing countries as preferred partners

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[112] United Nations Office for Disarmament Affairs. Treaty on the Non-Proliferation of Nuclear Weapons, Status of the Treaty. Retrieved from: http://disarmament.un.org/treaties/t/npt on Jul 8, 2015.

[113] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[114] Quote/cf. International Atomic Energy Agency. Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Retrieved from: https://www.iaea.org/publications/documents/treaties/npt on Jul 9, 2015.

[115] cf. Carlson, J (n.d.). Expanding Safeguards in Nuclear-Weapon States. NTI. Retrieved from: http://www.nti.org/media/pdfs/NWS_safeguards_carlson_fin.pdf?_=1337718775 on Jul 13, 2015.

for cooperation has also been brought into question, as claims were made that it wasn't the least developed countries (LDCs) that were benefitting, but rather the more technologically advanced developing countries[116].

Another issue arises from the body responsible for export controls on nuclear materials and technologies, the NSG. As is the case in the BWC with regards to the AG, members of the NSG claim that it operates to strengthen the nonproliferation norm and complementary to the NPT. This "awakened distrust" among the NAM, which viewed the mode d'emploi of the NSG as cartel-esque. To add insult to injury, there are only three members from developing states in the NSG (South Africa, Brazil and Singapore)[117,118].

In the case of the NPT, it seems that over-institutionalization has caused further conflict. A dynamic similar to that of one between Art.III and Art.X of the BWC is also apparent in the NPT, with the conflict between the nonproliferation obligation and cooperation being manifested in Art.I and Art.IV. This conflict stems from the difference in the 'weight' given to Art.IV as opposed to that of Art.1. The issue is further intensified with what is viewed by some as inexplicable export and discriminatory controls by the NSG.

Another regime conflict that should be mentioned is the issue of disarmament. Initially, NNWS weren't too happy with the inequality regarding prohibition, but a compromise was reach by adding provisions to the treaty text that ensured the right of countries to have a peaceful nuclear program, benefit from cooperation and technological transfers and a loosely formulated promise on behalf of NWS to eventually disarm. The stagnation of action on the disarmament obligation has been the cause of heated debate within the NPT, and coupled with export controls and insufficient cooperation under Art.IV has angered many NNWS states. As a result, many states have chosen to block

[116] Franceschini, G. (2014). Keeping the nuclear cooperation peaceful: the Technical Cooperation program and the safeguards mandate of the International Atomic Energy Agency in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 99-115.

[117] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[118] Meier, O. (2014). India, the Nuclear Suppliers Group and the legitimacy of the nuclear non-proliferation regime in in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 116-133.

progress within the regime by refusing to accept further "addition to the nonproliferation toolbox"[119].

3.4.2 The Chemical Weapons Convention

The CWC bears more similarities to the BWC than the NPT. It is also a multilateral treaty that bans an entire class of weapons, unlike the NPT which allows for some states to retain their nuclear weapon capabilities. Entering into force after more 20 years of negotiations the CWC is the youngest of the three non-conventional arms control treaties[120]. Currently, the CWC has 191[121] member states, who are all automatically members of the OPCW, which is the organizational body that oversees implementation and adherence to the provisions of the CWC. Similarly to the ISU of the BWC, the OPCW, which has its headquarters in The Hague, "receives states-parties' declarations detailing chemical weapons-related activities or materials and relevant industrial activities". Unlike the ISU, the OPCW's mandate also include verification and monitoring activities, and can even perform on-site inspection in case of doubts about non-compliance as provided for in Article IX of the convention[122]. Akin to the 'loophole' in the NPT, the OPCW conducts no verification in the US or Russia, given that their stockpiles have not yet been fully destructed. Keeping this in mind, we see the stark difference to the BWC regime, which lacks any sort of verification mechanism let alone an organizational body with a mandate and capabilities to perform it[123].

As in the BWC, the preamble of the CWC also makes reference to the role of the convention in fostering cooperation between States Parties in the peaceful use of chemical materials and technologies. This is once again reiterated and provided for more bindingly in Art.XI of the treaty text. Unlike the vague language – albeit not precise enough - used in Art.X of the BWC, Art.XI also calls on States Parties "to review their

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[119] Quote/cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[120] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[121] United Nations Treaty Collection. Retrieved from: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-3&chapter=26&lang=en on Jul 8, 2015.

[122] Quote/cf. The Chemical Weapons Convention (CWC) at a Glance, Fact Sheets & Briefs. Retrieved from: http://www.armscontrol.org/factsheets/cwcglance on Jul 8, 2015.

[123] cf. Zanders, J.P. (2014). Chemical Weapons Convention (CWC) Article XI and the future of the CWC in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 176-203.

existing national regulations in the field of trade in chemicals in order to render them consistent with the object and purpose of this Convention[124]". Additionally, Art.VIII, para. 21(g), calls on the Conference of States Parties (CSP), which is the highest decision-making body within the OPCW, with "[f]oster[ing] international cooperation for peaceful purposes in the field of chemical activities[125]". The cooperation norm (Art.XI) within the CWC finds itself at odds with the non-proliferation norm (Art.1), a regime conflict which is similar to that between Art.III and Art.X of the BWC. However, the CWC's Art.VI provides lists of materials according to their practical uses, called Schedules, which regulates their transfers. This eases, to some extent, the problematic situation arising from the conflict between the obligation not to transfer controlled chemical substances and cooperation for peaceful purposes. In addition, if doubts arise, States can still ask for an on-site inspection to take place within no later than 10 days as provided for by Art.IX. Both the schedules and the verification apparatus provide reassurances for the exporting states that the materials they transferred will not be used for illicit activity.

Furthermore, the OPCW helps strengthen the implementation of Art.XI through several programs such as the Laboratory Assistance Program and the Equipment Exchange Program, which highlights the benefit of a well-funded institutional body that enjoys a wide mandate to the promotion of cooperation and exchange within an arms control regime.

Nevertheless, this should not suggest that the CWC hasn't seen its fair share of tensions due to divergent views on Art.XI, just as the NPT has with Art.IV and the BWC with Art.X. In the case of the CWC, the NAM's grievances center almost entirely on the issue of export controls imposed by the AG. An issue which almost brought down the whole negotiation process of the CWC in 1992 if it weren't for last minute assurance by the AG that it will gradually phase out its influence as compliance with the CWC reaches a satisfactory level. It is worth pointing out that it was not clarified what the AG regards as satisfactory and now, more than 20 years later, no progress has been made in regards to dismantling the AG. The problematic situation has become such a divisive issue that

[124] Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. Article XI, para. 2(e).

[125] Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. Article VIII, para. 21(g).

some have argued "that the entire credibility and universality of the CWC depends on the fulfillment of the assurances that were given to the developing States on behalf of the Australia Group in 1992" [126,127,128].

It is the opinion of experts in the field that only with more effective implementation of Art.XI will it provide "an important incentive for many states to remain engaged with the convention[129]" and that "[t]he responsibility for eliminating distrust and creating confidence lies in fulfilling the promises and assurances on international cooperation that brought about the conclusion of the CWC in the first place[130]".

3.4 Summary

The BWC came as complementary measure to the Geneva Protocol, which didn't offer comprehensive enough coverage of the BW taboo. Since its entry into force it has gained 173 members and is considered the core of the BW non-proliferation regime.

In order to ensure the dynamism, relevancy and development of the regime, the convention treaty provided for a review conference to be held no later than five years after its entry into force. This decision was repeated in the first RevCon and the second until the third review conference made RevCons a permanent affair.

As early as the first RevCon, the issue of the Art.X has been present, with every RevCon, in varying degrees of intensity, addressing it.

Given that the BWC regime had no verification or monitoring mechanism, the need for developing such measures and to bolster transparency and trust, the second RevCon introduced CBMs. The success of the CBMs has, so far, has left something to be desired. Also, it was in the second RevCon that the conflict between Art.III and Art.X first gained prominence. Serious steps towards creating a verification system for the BWC emerged out of the third RevCon, where the final document provided for the creation of experts who would research scientific and technological methods for compliance

[126] Quote/cf. Shah, Prakash (2001). International cooperation in Chemical Trade: Has the Chemical Weapons Convention Helped?. OPCW Synthesis, April. 10-12.

[127] cf. Müller, H.; Becker-Jakob, U.; Seidler-Diekmann, T. (2013). Regime Conflicts and Norm Dynamics in Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice. Müller, Harald, and Carmen Wunderlich (Eds.). Athens, GA. University of Georgia Press. 51-81.

[128] cf. Zanders, J.P. (2014). Chemical Weapons Convention (CWC) Article XI and the future of the CWC in Meier. O: Technology Transfers and Non-proliferation (Ed.). Great Britain. Routledge. 176-203.

[129] *Ibid.*

[130] Shah, Prakash (2001). International cooperation in Chemical Trade: Has the Chemical Weapons Convention Helped?. OPCW Synthesis, April. 10-12.

verification with the BWC. This group came to be known as VEREX. After VEREX submitted a final report of its work, a Special Conference of the States Parties to the BWC was convened to decide on the steps that would follow the VEREX findings. The NAM expressed in blunt terms its concern that VEREX was ignoring the developmental aspects of the regime. As a result, the AHG's mandate, which was created with the main focus of developing a legally binding tool based on the VEREX report, also included looking into ways of strengthening the implementation of Art.X.

Initially, the AHG was supposed to submit their report before the fourth RevCon, but as it failed to do so, it was given until the fifth RevCon to finalize its work. This did not come to pass either after a highly controversial statement by the US shut down the AHG and led to the suspension of the fifth RevCon. The sessions resumed the following year, but the continuation of the work of the AHG wasn't on the table anymore. Nevertheless, it was the fifth RevCon that created the ISP, which has proven to be a valuable forum for development within the BWC regime.

Apart from the vague language that has been repeated in all the preceding RevCons, the sixth and seventh RevCons had little to offer in terms of progress on the issue of cooperation under Art.X. It is noteworthy, though, that the sixth RevCon created the ISU and the seventh set Art.X as a standing agenda item of the third ISP.

The problematic nature of Art.X has been the subject of much debate within the BWC regime and without. The debate can, to some extent, be divided into four main perspectives on the issue: export controls, universality, priorities and importance and existing aid projects. Each of these perspectives is also linked to an obstacle that impeded better implementation of Art.X. Export controls, with the AG at their core, have been viewed as discriminatory and have angered NAM states. The universality of the convention, despite its erstwhile importance, does not carry the same weight at present, and cannot be used as a positive incentive anymore. Furthermore, the debate within the regime in relation to Art.X remains immature and lacks precision, hindering practical steps forward. Finally, developed states seem to view their public health and development related aid as sufficient cooperation under Art.X.

Similar to the conflict between Art.III and Art.X, he NPT and the CWC also suffer from regime conflict arising from the juxtaposition of nonproliferation obligations on the one hand and cooperation obligations on the other. Still, the NPT and CWC enjoy a higher

level of institutionalization and a working verification system that helps better regulate and strengthen cooperation for peaceful uses.

4. Conclusions

Despite all the parties involved proclaiming their conviction about the importance of cooperation and technological transfer clauses in arms control treaties, transforming rhetoric into action has been unsatisfactory for some states. As a result, the issue has led to intense and extensive debate concerning the issue within the regimes and among experts. It has been a divisive issue that has taken center stage, but has witnessed very few positive changes. This is particularly true in the case of the BWC. Not only has it been an issue that has been addressed as early as the first RevCon and in every RevCon since, but it has virtually overshadowed all other issues.

The discourse on Art.X, as well as the obstacles impeding better implementation of it are multi-faceted and convergent. The waning importance of convention universality, which took away motivation for adopting measures to attract new members, combined with (what seems to some as arbitrary) export controls and their accompanying discrimination accusations have led to perhaps the most frustrating problem concedrning the Article X debate: the utter opacity and lack of precision when it comes to definitions, preferences and degree of seriousness.

One of the obstacles mentioned in previous chapters is the 'repackaging' of ODAs by developed countries, who argue that it qualifies as implementation of Art.X; however, just how far can this be regarded as successful cooperation if the receiving side doesn't see it that way or has not asked for it? On the other hand, the NAM states, the ones complaining about the lack of cooperation, have not put their demands in concrete terms. In the NPT and the CWC, both regimes have shown the benefits of having an institutional body regulating implementation of cooperation and technological transfer classes and an operative verification system. The BWC has resisted verification so far and has only a 3-person 'unit' to help organize its operations. As is the case in the NPT and the CWC, the BWC also contains the conflicting norms of nonproliferation and cooperation for peaceful uses, with the developed states championing the priority of the first and the developing states claiming it is the latter that should carry more 'weight'. For the developing states this confrontation has become part of larger and older grievances regarding arguments of injustice and colonial woes. How serious either

claims are will be virtually impossible to discern with all parties involved holding their cards close to their chests and sticking to vague language.

The objective of this work was to determine whether Art.X of the BWC has had any effect. If we were to consider its effectiveness as being limited to its role in the initial attraction of new members, then it definitely has proven its effectiveness. On the other hand, it was quickly obvious that it was nothing but an empty promise or perhaps an underestimation of its effects.

On the other hand, if we see Art.X for the catalyst of development within the regime and the factor that will keep its States Parties engaged in it that it is, it is not possible to say that Art.X has even scratched the surface of effectuality.

The continuation of this status quo will surely have a negative effect on the regime. Perhaps it won't be something as dramatic and loud as a collective walkout of disgruntled states, but something slower and quieter like its descent into irrelevancy as a result of reform being held back while better implementation of Art.X is used as a bargaining chip.

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Honor Statement

I pledge that this Master's thesis, entitled *Is there a 'carrot' in the BWC?* Has not been submitted for academic credit in any other capacity and that this Master's Thesis has not yet been published.

I further pledge that I wrote this Master's Thesis myself, without help from others. I did not use any sources or aids other than those listed. I appropriately identified and acknowledged all words and ideas taken from other works.

Hamburg, July 15, 2015

Tomisha Bino

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