



Mitigating the Potential for Chemical Weapons Use by Terrorists

Chemical Weapons Convention and Beyond

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ABSTRACT

The threat of terrorist organizations' use of chemical weapons is recognized as an important global challenge for the disarmament and non-proliferation regimes. As the threat differs fundamentally from the military threat and is essentially driven by the accessibility to dual-use chemicals, current tools need further development. This paper presents possibilities to develop the existing chemical weapons control framework within and beyond the Chemical Weapons Convention to better answer this new threat.

This paper proposes that Schedules of the Chemicals of the CWC are updated regularly and comprehensively to ensure that the CWC does not become obsolete. Further, to control a wider range of chemicals without hampering their peaceful uses, this paper suggests that a common trade control system based on case-by-case assessments was created within the CWC, and that for its effective monitoring a new three-level monitoring system was created in a close and inclusive cooperation with the private sector.

Beyond the CWC regime, this paper calls for effective and comprehensive multidisciplinary cooperation and recommends further deliberation on a new chemical (and biological) terrorism treaty to effectively answer the threat of chemical terrorism. This paper suggests that if created, the treaty would be built from the multidisciplinary and comprehensive premises, and its compatibility with the obligations and monitoring system of the CWC was guaranteed.

KEYWORDS: Chemical weapons, chemical terrorism, Chemical Weapons Convention, export control, trade control, dual-use chemicals, non-proliferation

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1. Introduction

During the Syria Civil War, the world has witnessed – in addition to all other horrors – continued use of chemical weapons, at least by the State forces and terrorist group ISIL.¹ Due to the pressing interest of the international community to make the Syria Arab Republic comply with its international obligations, the discussion about the use of chemical weapons during the past years has mainly focused on the identification of perpetrators and on securing the accountability of these atrocities. The threat of terrorists using chemical weapons in individual attacks or as a method of warfare also in the future is, however, real, and question how to prevent it needs to be addressed.

The use of chemical weapons is widely prohibited in customary and treaty law, and the advanced obligations and verification mechanisms of *The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction* (the CWC) have been praised on many occasions, for a good reason. With its 193 State Parties, the CWC is the most widely accepted weapons control treaty, and by March 2021, the work of the *Organization for the Prohibition of Chemical Weapons* (the OPCW) had led to the destruction of 98,5% of the world's declared chemical weapons stockpiles.² However, although the progressiveness of the CWC cannot be denied, the convention and its mechanisms are not perfect, the threat of chemical weapons use remains, and new approaches to growing issues still need to be further considered.

One of these growing issues recognized as an important global challenge for the disarmament and non-proliferation regimes and a challenge for the international community³ is the threat that terrorist organizations might use chemical weapons. The threat is also not merely a threat, as the use of chemical weapons by Aum Shinrikyo⁴, Al-Qaeda⁵, and most recently, ISIL⁶ has shown. Even though some might say that this threat is only a marginal problem and that the possible chemical terrorism attacks could only be limited scale, while the other cases have been rather a small scale, ISIL showed that terrorist organizations might even be able to have their own chemical weapons programs and that they might be able to gain the industrial capacity to develop chemical weapons and use them not only in individual attacks but also as a method of warfare.⁷

¹ Organization for the Prohibition of Chemical Weapons 2018

² Organization for the Prohibition of Chemical Weapons 2021, OPCW by the Numbers

³ Trapp 2006, 35

⁴ Tu AT 2014 and Senate Government Affairs Permanent Subcommittee on Investigations 1995

⁵ Spiers 2010, 141-142 and Thakur 2006, 4

⁶ United Nations 7 November 2017

⁷ Warrick 2021

The CWC requires States Parties engage not “never under any circumstances: To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone,” or to use them.⁸ The States Parties must also declare and destroy their chemical weapons and chemical weapons production facilities under set timelines and subject themselves to the verification inspections.⁹ Further, the States Parties need to prohibit activities prohibited from them also from natural or legal persons under their jurisdiction.¹⁰

Although these obligations are comprehensive, the threat of chemical terrorism is primarily driven by accessibility to dual-use chemicals and the possibility of acquiring materials to make chemical weapons through legal markets or illicit trade channels, not only from state stockpiles.¹¹ The threat is increased because quantities of chemicals needed for terroristic purposes are much lower than those of military relevance, even for more wide-scale attacks, larger doses and some level of specialization are required.¹² The past cases also show that complex or sophisticated delivery systems are not necessary, but they can be anything from missile warheads or grenades to plastic bags, trucks, or barrel bombs.¹³ Accordingly, the development of chemical weapons is less expensive and demanding than other weapons of mass destruction (WMD),¹⁴ at least the basic use of chemical weapons is possible for many terrorist organizations¹⁵, and the threat differs fundamentally from the military threat.¹⁶

While the issues of non-compliance of State Parties to the CWC relate to the truthfulness of declarations, delays of destruction, the effectiveness of verification systems, and to the mechanism to ensure compliance with the treaty, slightly different – although in many ways overlapping – questions arise when the discussion focuses on the threat of the use of chemical weapons by non-state actors.

When the source – in one way or another – of the chemical weapons used by terrorist organizations is the existing stockpile of a state, it is clear that the fewer chemical weapons the State has, the less likely it is for terrorist organizations to get them. Therefore, it is of crucial importance that the general obligations of the CWC are carefully followed. However, possibilities to strengthen the CWC from this

⁸ The Chemical Weapons Convention Article I (a) and 1 (b)

⁹ The Chemical Weapons Convention Article IV, V and Verification Annex

¹⁰ The Chemical Weapons Convention Article VII

¹¹ Trapp 2006, 30

¹² EU Non-Proliferation and Disarmament Consortium 2020

¹³ *Ibid.*

¹⁴ Dokos 2006, 77

¹⁵ EU Non-Proliferation and Disarmament Consortium 2020

¹⁶ Trapp 2006, 30

point of view are not considered in this paper because, in most cases, the terrorist cannot get their hands on the state stockpiles.

When discussing the accessibility of chemicals from different sources, it is noteworthy that the CWC is not an antiproliferation treaty in the first place but primarily a disarmament measure, and it does not comprehensively deal with acquisition possibilities nor with terrorism prevention. However, the easiest way for terrorist organizations to acquire chemicals used as weapons is through legitimate markets. Therefore, as it is, the CWC – despite its sophistication in its own field – is not effective enough to tackle the issue of the possible use of chemical weapons by terrorist organizations.

The central goal of this paper is to consider how the regulatory framework of chemical weapons could be strengthened so that it would more effectively answer to the threat terrorist organizations acquiring and using chemical weapons. Because it is clear that the preferable way to answer this threat is to prevent it instead of leaning on accountability,¹⁷ this paper focuses on possible measures to prevent terrorist organizations even from acquiring chemical weapons.

Issues considered in this paper relate especially to monitoring the trade and sale of chemicals, and ideas and suggestions for improvements of the current regulatory framework are presented within and outside of the CWC. Although the CWC is not a counter-terrorism tool, it contains several articles relevant to the subject.¹⁸ Ideas to strengthen the current CWC from the described point of view are presented in chapter 2, and in chapter 3, possibilities to strengthen the monitoring mechanisms within the CWC regime are further considered. To offer a more comprehensive approach, in chapter 4, measures to prevent the mentioned threat are searched from outside the CWC regime first by briefly introducing existing measures and mechanisms and then by considering the possible usefulness of a treaty focusing on chemical terrorism.

2. Possibilities to Develop the CWC

As the most comprehensive and potent existing mechanism for curtailing chemical weapons use, the CWC is a natural starting point when considering strengthening the regulatory framework of chemical weapons. Although the CWC as it is, is not the best possible tool for tackling the issue of potential chemical terrorism, it is, however, strong and widely accepted and includes established and

¹⁷ Although accountability becomes crucial if preventive measures fail, and although effective accountability mechanism can also have preventive effects through deterrence.

¹⁸ Organization for the Prohibition of Chemical Weapons 2021, Preventing the Re-Emergence of Chemical Weapons

progressive destruction, verification, and monitoring obligations. Therefore, because of the broad reach and developed mechanisms of the CWC, it is relevant to research how it could be strengthened to better answer the threat posed by terrorist organizations acquiring chemical weapons.

Because the threat of chemical terrorism stems importantly from the accessibility to the chemicals, this chapter focuses on the possibilities of the CWC to affect their accessibility. First, the importance of the regular update of the Schedules of Chemicals of the CWC is discussed, and secondly, the idea of creating a new trade control system within the CWC framework to enable control of a broader range of different chemicals is presented.

2.1 Schedules of the Chemicals

One possibility for further development within the current CWC regime is the regular update and extensions of the three Schedules of Chemicals annexed to the treaty. Ensuring that the schedules are updated is crucial because currently, they offer only clear and effective monitoring mechanism for the transfers of chemicals within the CWC. In this chapter, the role of the Schedules as well as some issues and the importance of their updating are discussed.

In its article VI and its Verification Annex, the CWC creates an expanded verification regime and trade restrictions for listed chemicals.¹⁹ The chemicals listed in Schedules are considered of specific interest to the goals, verification, and restriction measures of the CWC, and they are categorized according to their considered sensitivity. Schedule 1 contains the most sensitive chemicals, which have primarily military uses. These chemicals can only be transferred under tight conditions, their production is limited to specific peaceful purposes, and their possession amounts are limited.²⁰ Both, Schedule 1 and 2 chemicals are prohibited from being transferred to states not parties to the CWC,²¹ and Schedule 3 chemicals – which are considered to be a modest risk²² and are used and produced for peaceful purposes with high quantities – can be transferred to non-States Parties only if an end-use certificate is obtained and they are not transferred onwards.²³ Also, State Parties must declare all the transfers of scheduled chemicals to the OPCW²⁴ in addition to some further declaration requirements.

¹⁹ Boehme 2008 and The Chemical Weapons Convention Article VI and Verification Annex

²⁰ Trapp 1993, 8

²¹ Anthony 2014, 3

²² Trapp 1993, 9

²³ Kimball 2020, Anthony 2014, 3 and The Chemical Weapons Convention Verification Annex

²⁴ Organization for the Prohibition of Chemical Weapons 2021, Preventing the Re-Emergence of Chemical Weapons

The definition of “*chemical weapon*” is described in the CWC through General-Purpose-Criterion,²⁵ and the schedules are only meant for verification and monitoring. To keep the schedules up-to-date even when new chemicals are developed and to easily modify possible impracticalities,²⁶ the CWC contains a simplified changing procedure for annexes related only to administrative or technical matters and for the Annex on Chemicals.²⁷ The schedules were indeed changed after the Novichok agent incident in the UK in 2018²⁸ when new agents were added to Schedule 1. Still, besides the argument that this change should have been more expansive to avoid loopholes, some dangerous families of chemicals are still missing from the schedules.²⁹ Moreover, it would be preferable to amend the schedules *before* the non-listed chemicals are actually used for prohibited purposes.

Although the current schedules were the result of complex negotiations³⁰ and the first change to the schedules was not easy,³¹ the possible unwillingness of State Parties to add new chemicals to the schedules can jeopardize the objectives of the CWC. Although the schedules are not intended to define what is considered as a “*chemical weapon*,” in practice, they offer only precise verification and trade control requirements of the current CWC – although transfer, acquiring, and other activities with all the chemicals for non-peaceful purposes is prohibited.

The schedules are not even meant to be comprehensive,³² but keeping them up-to-date and as extensive as practically possible is vital to enforce and monitor the CWC more effectively.³³ However, while adding new chemicals to the schedules, it needs to be considered that overextending them would cut the ground off from their intended use as facilitators of verification. Because of the high number of different and potentially dangerous chemicals and the large scale of their production and trade, effectively controlling every single chemical is not possible, and therefore the schedules must remain as an important prioritization tool.

This chapter discussed the importance of the up-to-dateness of Schedules of the CWC, which offer an important monitoring and verification prioritization tool for the treaty obligations. While updating the Schedules is essential, their usefulness considering the threat of chemical terrorism is not a

²⁵ The criteria means that all toxic or precursor chemicals are defined as chemical weapons, if they are not used, developed, stockpiled, or produced for peaceful purposes, i.e., purposes that are not prohibited by the CWC.

²⁶ Trapp 2006, 24

²⁷ de Guttry 1998, 148

²⁸ Read more for example from the website of the Organization for the Prohibition of Chemical Weapons: <https://www.opcw.org/media-centre/featured-topics/incident-salisbury>

²⁹ Costanzi and Koblenz 2020

³⁰ Trapp 1993, 7

³¹ Costanzi and Koblenz 2020

³² Anthony 2014, 8

³³ Costanzi and Koblenz 2020

straightforward matter. While Schedule 1 chemicals are strictly controlled, more widely used Schedule 2 and 3 chemicals lack an effective monitoring system. Moreover, the problem of the lack of mechanisms relating to non-scheduled chemicals is pressing. Because some level of control on non-scheduled chemicals is essential to answer existing threats effectively, possibilities to do this alongside – and together – with the schedule mechanisms are considered in the next chapter and possibilities to strengthen the monitor mechanisms in chapter 3.

2.2 Export controls

The Schedule-based obligations of the CWC only cover a limited range of chemicals, and control requirements for schedules 2 and 3 are not especially comprehensive. Therefore, the terrorist organizations are left with relatively easy routes to acquire chemicals they may use as weapons if they so wish. In addition, the CWC is lacking precise requirements for required regulation in relating to private actors. On that account, developing a more flexible and effective control and monitoring system for a broader range of chemicals is needed. This chapter presents an idea for the possible structure of a more comprehensive trade control system which would be based on case-by-case assessment and build inside to the current CWC regime.

In addition to requirements and established mechanisms relating to scheduled chemicals, Article VI (2) of the CWC requires State Parties to adopt “*necessary measures to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred, or used for purposes not prohibited*” and the Article VII (1) requires State Parties to adopt “*necessary measures*” to implement their treaty obligations, such as prohibiting “*natural and legal persons [– –] from undertaking any activity prohibited to a State Party.*” These articles do not refer only to scheduled chemicals, but they require State Parties to control all chemicals possibly used for prohibited purposes,³⁴ and by their wording, they raise difficult questions about required national implementation measures.³⁵ Unlike some clearly stated verification measures related to scheduled chemicals, the content of the “*necessary measures*” is not described. However, it is possible to assume that “*necessary measures*” refer to legislative and administrative measures. Relating to article VI, it is possible to argue that if a state meets articles requirements related to scheduled chemicals, it would have taken the “*necessary measures.*”³⁶

³⁴ Organization for the Prohibition of Chemical Weapons 2021, Preventing the Re-Emergence of Chemical Weapons

³⁵ Bothe 1998, 543

³⁶ Krutzsch and Trapp 1994, 100

In general, the CWC, however, establishes only a limited regime for controlling transfers of chemicals, and while the trade restrictions of scheduled chemicals in the CWC relate to trade *between states*, the requirements to control private activities are somewhat unclear, although most of the chemicals are indeed in private hands. From the CWC, it is only clear that States have to – through their national legislation – prohibit private actors committing acts prohibited from states, penalize this conduct, and not permit prohibited transfers. However, in practice, this does not necessarily mean strict export controls but rather some kind of effective control measures relating to sensitive chemicals.³⁷

Due to varying national implementation measures depending on circumstances of different states³⁸ and varying reach of national legislations,³⁹ the effectiveness of the trade control system of the CWC can be justifiably questioned. Unclear requirements for the implementation of articles VI and VII are one of the weaknesses of the CWC,⁴⁰ and the issue is even more pressing because restricting and controlling the trade of chemicals possibly used as weapons is a critical element considering possibilities to prevent terrorist organizations from acquiring chemical weapons.

The fundamental contradiction emerges between the threat of using chemical weapons by terrorist organizations and the need for measures to counter this threat, and between the clear interest and importance to secure possibilities for peaceful uses of chemicals. Because many possibly weaponized chemicals also have important civilians uses,⁴¹ Article XI of the CWC is especially meant for securing that peaceful activities and, for example, trade or scientific or technological developments are not restricted or impeded.⁴² Because the trade of chemicals for peaceful purposes is a likely avenue for a terrorist to acquire them, it is crucial to pay more attention to the trade control mechanisms. However, a comprehensive monitoring system for all possible chemicals or all possible transfers is not likely possible because of the high quantities of chemicals traded, including thousands of companies.⁴³ For the same reason, it is clear that legal trade has to be somehow controlled and monitored.⁴⁴

Currently, the existing controls relating to Schedule 1 chemicals include the requirement that transfers of these chemicals between State Parties need to be informed to the OPCW at least 30 days

³⁷ Marauhn 1998, 492, 496

³⁸ Krutzsch and Trapp 1994, 116

³⁹ Marauhn 1998, 497

⁴⁰ *Ibid.*, 494

⁴¹ Martin, Salisbury and Takacs 2013

⁴² The Chemical Weapons Convention Article XI

⁴³ Anthony 2014, 7, 12

⁴⁴ Üzümcü 2016

beforehand by both parties.⁴⁵ Also, State Parties have to offer to the OPCW annual detailed declarations of transfers of these chemicals. Relating to Schedule 2 and 3, the States must give “initial and annual declarations” containing specified information about quantities relating, for example, to exports of these chemicals.⁴⁶ However, the measures relating to Schedules 2 and 3 are subsequent and do not take into account possible circumstances requiring more effective controls. Moreover, the CWC does not require any declarations of non-scheduled chemicals.⁴⁷

Even with the described restrictions, the need for common export control requirements remains so that the effective, harmonized, and advanced monitoring of Schedule 2 and 3 chemicals, and especially non-scheduled chemicals, was possible. Due to varying national legal systems and the size and composition of chemical industries in different countries, harmonizing national export controls is difficult.⁴⁸ Therefore the question of what, then, could the multinational trade control system within the CWC regime look like is a tricky one to answer.

However, because a common export control system is needed, flexibility has to be the starting point so that different situations can be considered and that the possibilities for peaceful uses of chemicals are not hampered. Because of this, while the declaration system of the CWC, as well as limitations to trade between State Parties and non-State Parties, are based on Schedules, the system of common trade controls could be based on case-by-case assessment with clear standard guidelines.

One way to arrange the case-by-case assessment is that the OPCW would create – and continuously update – the list of sensitive destinations where transfers would always be monitored more closely or entirely banned. The sensitivity level of destination could also be tied to the type and quantity of chemicals transferred; with scheduled chemicals, the level could be lower than in the case of a transfer of non-scheduled chemicals, and higher quantities could be restricted with a lower threshold than the smaller ones.

Another – or parallel – system could be a general list of circumstances under which the tighter monitoring requirements or ban of the transfer would be implemented. The circumstances could, for example, include ongoing war, previous use of chemical weapons in the country, or other severe

⁴⁵ Relating to Saxitoxin when used for medical purposes and the quantity is less than 5 milligrams, the notification has to be made by the time of the transfer. Organization for the Prohibition of Chemical Weapons 2021, Declaration Requirements for Scheduled Chemicals

⁴⁶ Organization for the Prohibition of Chemical Weapons 2021, Declaration Requirements for Scheduled Chemicals

⁴⁷ There are two exceptions relating to plant sites that produce certain amounts of unscheduled discrete organic chemicals by synthesis. Organization for the Prohibition of Chemical Weapons 2021, Declaration Requirements for Scheduled Chemicals

⁴⁸ Anthony 2014, 2

conditions which give a reason to believe that transferred chemicals could be used for prohibited purposes. The list of circumstances would be created by the OPCW – in close cooperation and transparency with the chemical industry⁴⁹ – and case-by-case assessment done by the national actors, although the unclear cases could always be delegated to the OPCW for further evaluation. Also, here, slightly different requirements could apply to scheduled and non-scheduled chemicals, and also, the quantity of transfer could be added as a defining factor. For the sake of comprehensiveness, there would also be a possibility to interrupt the transfers until further clarification if it were noticed that chemicals are acquired from different sources in a way that acquisitions would together – or in the case of possible recovering of chemicals, individually – be prohibited.⁵⁰

What then would the referred tighter monitoring requirements look like when the case-by-case risk assessment had led to the conclusion that they are needed to put in place? A flexible way, which could also enable peaceful uses in the case of false suspicion, would be to require a declaration of intended use from the purchaser as a precondition for the license and its subsequent verification. If the truthfulness of the declaration could not be verified, the further transfers would be put under particular scrutiny – or banned altogether. Importantly, not only trade between states but between private actors as well would be monitored according to the same standard guidelines, and current requirements relating to scheduled chemicals would remain.

The suggested common trade control system would be flexible enough to take into account different situations. Also, through the case-by-case assessment hampering the trade for peaceful purposes could be prevented if the criteria for tighter monitoring requirements were made in close cooperation with all the relevant actors and set down so that the assessment could be done within the usual procedures of chemical transfers.

However, the suggested system would likely raise political controversies, especially relating to the possible list of sensitive destinations. To decrease this controversy, the assessment would be based on explicit and written criteria interpreted by national actors, case-by-case, when the review would only be based strictly on facts, not, for example, on political considerations.

This chapter has discussed issues relating to the current lack of precise trade control requirements on the CWC and suggested a new, case-by-case assessment-based system for common trade controls within its framework. The proposed system would enable flexible monitoring of trade of a broader

⁴⁹ Anthony 2014, 12

⁵⁰ *Ibid.*, 6

range of chemicals by implementing clear guidelines, requiring tighter verification when needed, and involving the private sector in the monitoring framework. Because monitoring a high number of transfers, carrying out the case-by-case assessments, and verifying possible tighter trade control requirements is not a straightforward issue, possibilities for a practical monitoring system are further considered in the next chapter.

3. Monitoring at Local, National, and International Level

Strengthening and harmonizing national trade controls within the CWC framework offers a possibility to more effectively block some avenues for terrorist organizations to acquire chemical weapons. However, the issue is not only about international trade but also about the sale of chemicals inside one country. Therefore, it is essential that the monitoring effectively reaches the private sector and the local level. This could be done by widening the monitoring system offered by the CWC.

Currently, the CWC requires State Parties to designate a National Authority responsible, for example, for submitting declarations, acting as a link to the OPCW, cooperating with other State Parties, and monitoring and enforcing national compliance. However, due to different situations of State Parties, no specific requirements for the National Authorities are given, and each State Party can decide elements such as the structure, mandate, and size of the National Authority by themselves.⁵¹

While the current provisions about National Authority are pretty loose, the system structured more precise manner could help states effectively ensure that also private actors follow the obligations of the CWC. While there is no need to change the flexible and national needs-based structure of national actors, further requirements relating to their monitoring tasks could be put in place, and a new level to the current monitoring system could be added. This chapter describes the idea for a new monitoring structure, including local, national, and international levels,⁵² and finally considers its possible benefits and challenges.

3.1 New Local Authorities and Private Sector Cooperation

Here an entirely new layer to the OPCW monitoring structure, the Local Authorities, is presented. The new layer is needed to share responsibilities and burden of monitoring previously suggested common

⁵¹ Organization for the Prohibition of Chemical Weapons 2021, Supporting National Implementation of the Convention Delivering on the Convention's Promise

⁵² About three-level Biological Research Security System see the proposition made by Elisa Harris and John Steinbruner (University of Maryland), for example from: Levi and O'Hanlon 2005, 82

trade controls monitoring and verification activities and cooperate more effectively with the private sector and integrate it into the monitoring processes.

To respect the flexible structure of the current system, the Local Authorities could also be established in State Parties based on each States' individual circumstances; there might be several if the chemical industry is broad or none if chemical industry actors are not present in the country in question. In the latter case, the National Authority would remain to take care of the required tasks. For the sake of harmony, the need for the establishment of Local Authorities would be based on set guidelines by the OPCW in which also circumstances requiring this kind of actor would be clearly stated.

Local Authorities would act on the local level as a link to the private sector and help and support private parties to follow and implement given requirements effectively. To cope with possibly high amounts of chemical transfers that need to be case-by-case assessed and possible cases monitored more strictly, the Local Authorities would work in close cooperation with the private actors, and the suggested case-by-case analysis would be incorporated into their basic customer screening activities.⁵³ This would mean that when the question was about transfers or sale of chemicals between private actors – locally or internationally – private parties themselves would make the case-by-case assessment based on clear guidelines. Situations difficult to assess could be furthered to Local Authorities for further consideration, or still to the National Authority or to the OPCW.

To ensure that private actors follow the guidelines, for example, quarterly yearly reports were to be given to Local Authorities containing all the made assessments. If the amounts of transfers were too high to assess one by one, the Local Authorities could do spot checks on reports and pay special attention to them if there were suspicions of non-compliance.

Each State Party could decide if also the possible monitoring measures following the case-by-case assessments were made by the private actors themselves or by the Local Authorities. If the evaluations conclude that further monitoring is required, these measures would include asking for the declarations of intended use and subsequent verification of their truthfulness. When the truthfulness could not be verified, the notice about the need for particular scrutiny or complete ban of the future transfers would be sent to the shared register maintained by the OPCW.

Even though the new system would put an extra burden on private actors, effective monitoring requires cooperation with local industry, suppliers, and buyers. The rationale behind the Local Authority is that

⁵³ Anthony 2014, 12

the burden to monitor, to some extent even legal activities, would not accumulate to one actor. Notably, the case-by-case analysis could be easily done within the usual chemical transfer procedures if technically so designed. In addition, the system would also offer a possibility for private actors to have their interests heard and different circumstances considered. Adding industry clearly to the monitoring activities would also effectively help them share the information about developments in the chemical field. This could, for example, help with identifying chemicals of a proliferation risk, which is not always an easy task,⁵⁴ so that this information could, for example, be taken into account in updating processes of the Schedules of chemicals of the CWC.

3.2 National Authorities

At the national level, an authority corresponding to current National Authorities established in every CWC State Party would continue the current tasks of the National Authorities, for example, as a contact point to the OPCW and other State Parties,⁵⁵ and as a submitter of declarations. Also, the National Authorities would be responsible for suggested new trade control activities when another party of the transfer was a State.

When the question was about transfers involving a State, the National Authority would be the primary actor to make the case-by-case assessment, undertake further monitoring and trade declining activities if needed, and follow up the truthfulness of declarations of intended use if they were required. In uncertain risk assessment cases, the case could be referred to the OPCW for further clarification. Also, the National Authority would submit, for example, quarterly yearly reports of all the made assessments to the OPCW to enable their inspections in the form of possible spot checks. National Authorities would also help Local Authorities with their case-by-case assessments in uncertain situations and either comprehensively check their reports of completed assessments or do spot checks on them in a case of large amounts of cases.

Because not even the current CWC sets down requirements for the composition of National Authorities, their structure could remain flexible and be organized practically. For example, suppose the State-owned chemical industry is present in a country. In that case, one department of the National Authority could be placed in the State's chemical facility where the case-by-case assessments and possible further monitoring activities could be administratively lighter to make as part of the other trade processes. Depending on the State's chemical industry structure and its national legislation, the

⁵⁴ Anthony 2014, 12

⁵⁵ Bothe 1998, 552

responsibility sharing between Local and National Authorities could also be organized differently to ensure a flexible system where the required monitoring activities could be conducted practically.

3.3 International level – The OPCW

At the international level, the OPCW would continue its current tasks but increase its resources to monitor and verify reports and declarations relating to scheduled chemicals and new requirements suggested in chapter 2.2. Also, some additional tasks relating to the proposed new trade controls mechanism would be given to the organization.

First, the OPCW would create a set of common and binding guidelines as suggested in chapter 2.2. and continuously update them, especially the list of sensitive destinations if one was made. Secondly, the OPCW would help National Authorities with case-by-case assessments in uncertain situations and do spot checks on their reports containing all of their assessments.

Thirdly, the OPCW would maintain a database where Local and National Authorities – or private actors – could report issues, for example relating to acquiring verifications of declarations of intended use. Also, further information of all transfers – at least of certain chemicals – could be added to the same database. Based on the data, the OPCW would further monitor the trade at the general level and contribute, for example, to identify large-scale procurements of suspicious chemicals from different sources. This effort would be meaningful because when there is a general tendency to concentrate monitoring on large-scale transactions of sensitive chemicals,⁵⁶ there is a possibility that some actors acquire chemicals which, if bought together – or in the case of recovering chemicals if bought individually – would require licenses or more strict controls.⁵⁷ If the OPCW more effectively monitored the transfers, the further transfers could be interrupted until further clarification if suspicious activities were noticed.

3.4 Benefits and Challenges of the Suggested System

This chapter proposed a monitoring system for the suggested new trade control requirements and other obligations. The recommended system would be based on three levels: local, national, and international, and lean importantly, on the cooperation with the private sector and effective responsibility and information sharing between different actors. The most significant benefit of the

⁵⁶ Anthony 2014, 12

⁵⁷ *Ibid.*, 6-7

suggested system is that it would enable more effective and case-by-case-based monitoring. Although the current CWC does not aim to follow chemicals through their whole life cycle, clear distribution of responsibilities, with the flexibility to make the system best suitable for each States' circumstances, would reduce the burden of individual actors and make it possible to follow a broader range of chemicals possibly used for prohibited purposes.

There is also a clear need for the verification system that is effectively monitored because no matter what kinds of declarations, licenses, or certificates are required, false declarations and certifications can be given, front companies can be used, and actual prohibited use or destination can be hidden with the help of multifaceted chains of supply.⁵⁸ Also, confidence-building results are usually better if they are also somehow reviewed.⁵⁹ However, due to the large number of chemicals traded, the misuses can never be entirely prevented. Still, within the new system, at least some of the acquisitions of chemicals for prohibited purposes and possibilities to acquire them from different sources to mix them for prohibited purposes could at least be made more difficult.

Also, more close and better-structured cooperation with the private sector would make information change easier and offer a possibility to take private party interests better into account and utilize their resources and knowledge from the field. If the private sector were built into the CWC mechanisms, it would enable further outreach and proper integration instead of sole monitoring from up to down. Through co-development and integration of monitoring activities inside the industry development, the information would eventually smoothly travel to both directions: from local and industry level to the national level and the OPCW, and vice versa.

Because the requirements for the structure of National Authorities within the current CWC are flexible and the definition of “*necessary measures*”⁶⁰ leaves room for interpretation, there would be no need to fundamentally change the mandate, actions, or structure of the OPCW. Only some additions to its functions and changes to how the organization cooperates and interacts with other actors and how the monitoring responsibilities are shared would need to be made. Even though changing stabilized structures may be complicated, it is crucial to ensure that the system is practically adapted to evolving conditions.⁶¹ At the same time, stabilization and the strong position of the OPCW are factors to help effectively building new levels into its existing structures.

⁵⁸ Martin, Salisbury and Takacs 2013

⁵⁹ Bothe 1998, 549

⁶⁰ See chapter 2.2.

⁶¹ Trapp 2006, 38

Of course, already the current system of National Authorities requires not only legislation but also administrative and budgetary resources.⁶² Moreover, national actors might not be willing to let international regulation get involved in how their national monitoring activities are structured, as we have already seen relating to the difficulties to negotiate common export control systems. Also, there are no guarantees that National Authorities would effectively implement the new requirements in case of lack of national will. Thus, strong support from the OPCW and actual follow-up of national implementation activities and involvement when the required implementation is lacking are needed.

Additionally, in implementing the new requirements, it needs to be taken care, that it would not turn to damage for the beneficial applications of chemicals.⁶³ As suggested, this could be done if the industry and different relevant market actors are deeply involved in implementing the requirements, monitoring systems are built into already existing basic chemical trade processes, and the responsibility is shared in a balanced manner.

4. Possibilities to Strengthen the Regulation Framework Outside of the CWC

Although the CWC is the primary tool of today's chemical weapons control regime, several voluntary chemical weapons control mechanisms and more general regulations and tools also contribute to preventing chemical weapons acquisition. While many of these mechanisms are voluntary, some legally binding instruments are also relevant to the subject. In general, the regulatory framework of chemical weapons is linked to several fields, and the multilateral cooperation needs to be further enhanced.

This chapter focuses on tools and possibilities outside the CWC framework and their suitability and development possibilities relating to the threat of acquiring chemical weapons by terrorist organizations. First, the chemical weapons control regime is connected to other relevant regimes, and tools such as the Security Council resolution 1540 and international criminal law mechanisms are briefly introduced. Next, existing voluntary mechanisms and their relations to the CWC are discussed. Finally, an idea about the new chemical terrorism treaty is brought to the discussion, and its possible benefits are considered.

⁶² Bothe 1998, 557

⁶³ Robinson 1996, 80

4.1 Chemical Weapons Control Regime as Part of the Bigger Picture

In addition to a strictly chemical weapons-based approach, several international mechanisms have been created to combat terrorism in general, such as UN counter-terrorism strategies, tools, and regulations.⁶⁴ Countering chemical terrorism is also closely connected to a wide range of different activities, actors, and fields of international cooperation. In this chapter, these relations are briefly introduced to illustrate the multilateral nature of the regulatory framework.

The first mechanism to explore – and one of particular importance – is the Security Council Resolution 1540 (2004), which requires states not to support non-State actors that “*attempt to develop, acquire, manufacture, possess, transport, transfer or use*” WMDs. Also, “*other effective measures*” need to be taken to prevent non-State actors from proliferating these weapons, especially for terroristic purposes.⁶⁵ The resolution is binding on UN member states, and they must report their national legislation to the 1540 Committee although there are no formal verification provisions.⁶⁶ However, full implementation of the resolution is a long-term task, and gaps in its implementation remain.⁶⁷ Although the resolution has even been called “insufficient” in answering today’s threats,⁶⁸ its importance cannot be denied. Resolution 1540 is the most comprehensive, legally binding WMD-terrorism tool, and its effective implementation needs to be further encouraged, for example, by cooperating more closely with the OPCW and its inspection capacities.⁶⁹

Second, broader investigative powers of the OPCW and enhanced accountability mechanisms offered, for example, by the international criminal law, could be important features to strengthen the framework because they might also have a preventive effect through deterrence. Therefore, the importance of the universal jurisdiction and securing operational preconditions of organs such as the International Criminal Court, for example, should not be overlooked. There have also been efforts to strengthen this area, such as the *International Partnership Against Impunity for the Use of Chemical Weapons*,⁷⁰ and further cooperation should be enhanced.

⁶⁴ See for example United Nations Office of Counter-Terrorism – Chemical biological, radiological and nuclear terrorism: <https://www.un.org/counterterrorism/cct/chemical-biological-radiological-and-nuclear-terrorism>

⁶⁵ United Nations Office for Disarmament Affairs

⁶⁶ EU Non-Proliferation and Disarmament Consortium 2020

⁶⁷ United Nations 2020

⁶⁸ United Nations 28 June 2017

⁶⁹ Thakur 2006, 14

⁷⁰ Read more from the website of the International Partnership Against Impunity for the Use of Chemical Weapons: <https://www.noimpunitychemicalweapons.org/-en-.html>

Third, strengthening existing actors to combat illicit trade, such as border security actors, World Customs Organizations,⁷¹ and INTERPOL,⁷² is crucial to tackling the possible acquisition of chemical weapons by terrorist organizations. Including these actors in the current system is vital because the CWC is not effective in tackling the illicit trade routes, not even if changed as suggested. Illicit trade channels are, however, a considerable channel for terrorist organizations to acquire chemical weapons. Therefore, to answer complex threats such as chemical terrorism, effective cooperation with different areas is required for effective action.

Fourth, also different types of sanctions, such as financial sanctions and restrictions on travel, and other specific measures to prevent terrorist acts, are all essential elements also for preventing chemical weapons proliferation⁷³ by terrorist organizations. So are also many other even more general measures and possible actions, such as contributions to conflict management and resolution. Here these aspects are only shortly mentioned to remind that the international system has several possibilities to tackle even complex issues, but the real challenge is putting them together to create a comprehensive and effective framework to answer common threats.

This chapter has briefly introduced different chemical weapons control regime connections to the other areas of international cooperation. The goal has been to offer a perspective to the chemical weapons control regime as a part of a broader context and emphasize the importance of multidisciplinary collaboration. Different parallel mechanisms and efforts to combat even chemical terrorism exists and are needed. In the next chapter, the perspective is further broadened by discussing the voluntary chemical weapons control mechanisms.

4.2 Voluntary Chemical Weapons Control Mechanisms

Within the chemical weapons control framework, several voluntary mechanisms outside the CWC also exist and contribute to chemical weapons control and the prevention of their acquisition by terrorist organizations. In this chapter, these mechanisms are briefly introduced at a general level to form a complete picture of the field. In addition, some remarks are made about the reasons this paper suggests rather developing a new trade control system within the CWC than focusing solely on further developments of these already existing mechanisms.

⁷¹ United Nations 28 June 2017

⁷² United Nations 2016

⁷³ Stockholm International Peace Research Institute 2013, 442

In general, it can be said that the voluntary chemical weapons control mechanisms – which often focus mainly on trade controls of chemical weapons (and other WMDs), on dual-use items and illicit trade – are usually informal, established by like-minded states,⁷⁴ and an integral part of today's chemical weapons control regime as they importantly support the work of the OPCW. If cooperative relationships with the OPCW and these mechanisms are further built and maintained, they can meaningfully contribute to the suggested trade controls and monitoring activities of the CWC and be crucial when tackling terrorist organizations acquiring chemical weapons.

One example of these existing arrangements is the *Australia Group*, which coordinates export controls of its members⁷⁵ and shares information to prevent chemical and biological weapons from spreading.⁷⁶ The lists of controlled chemicals of the Australia Group include chemicals that cannot be found from the Schedules of the CWC. Its guidelines direct the transfers of controlled chemicals and include, for example, a list of factors to consider when evaluating the exports.

Also, the *Global Partnership Against the Spread of Weapons and Materials of Mass Destruction* aims to support the CWC and the OPCW,⁷⁷ and the *Proliferation Security Initiative* deals with the trafficking of the WMDs.⁷⁸ The *Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies* focuses on dual-use items and technologies and on conventional arms and aims, for example, to prevent the terrorist from acquiring them.⁷⁹

An apparent shortcoming of these arrangements is that they are voluntary, and their decisions are not legally binding. No matter how sophisticated guidelines are created, their monitoring is a difficult task and depends crucially on national implementation and monitoring. Even though these mechanisms may aim to engage more with the non-participating states, industry, and academia,⁸⁰ they may have issues with their generally accepted legitimacy, and the states and suppliers that decide not to participate, make the possible impact of actions of these groups limited. Because it is also not plausible that the reach of these mechanisms would remarkably widen in the near future, this paper suggests instead implementing the export controls within the legally binding CWC-framework that also has almost universal reach.

⁷⁴ EU Non-Proliferation and Disarmament Consortium 2020

⁷⁵ Marauhn 1998, 522-23

⁷⁶ The Australia Group 2007

⁷⁷ Read more from the website of the Global Partnership: <https://www.gpwmd.com/cswg>

⁷⁸ Read more from the website of the PSI: <https://www.state.gov/about-the-proliferation-security-initiative/>

⁷⁹ Read more from the website of the Wassenaar Arrangement: <https://www.wassenaar.org/>

⁸⁰ Stockholm International Peace Research Institute 2013, 449

However, effective information exchange remains an essential advantage of these mechanisms,⁸¹ and the importance of international cooperation and voluntary mechanisms should not be underestimated. The interest of states to cooperate and politically bind themselves on common principles is a sign that export controls are still seen as a valuable way to tackle the issues relating proliferation of chemical weapons.⁸² Therefore, even a new trade control framework would be created within the CWC, existence of these mechanisms also in the future, and close cooperation with the OPCW should be further enhanced and seen as a possibility to strengthen also the CWC framework.⁸³

Moreover, there is a lot the CWC/OPCW framework could gain from these mechanisms. In addition to close cooperation relationships, the trade control guidelines of these mechanisms could be used as reference when creating ones for the CWC. Also, their experiences of good practices and challenges of international trade controls should, of course, be utilized.

This chapter has briefly introduced voluntary mechanisms that contribute straight to the chemical weapons non-proliferation and counter-terrorism regimes and emphasized their importance also in the future. Due to these arrangements' voluntary nature and limited reach, the suggestion is, however, to develop an additional trade control regime within the CWC framework. However, close cooperation and learning from already existing mechanisms are endorsed.

4.3 Chemical Terrorism Treaty

In the past, there have also been some initiatives to create an international convention to combat chemical and biological terrorism. Although the main reasons for this kind of convention are related to the lack of the OPCW jurisdiction towards biological weapons,⁸⁴ it is interesting to consider further if this kind of treaty would also contribute to preventing chemical terrorism. This chapter discusses the possible contents, benefits, and difficulties of the treaty specially designed for combatting chemical (and biological) terrorism.

Issues surrounding chemical terrorism are essentially different from the issues relating to the proliferation of chemical weapons for military purposes, and consequently, threatening chemical terrorism through its own treaty framework outside the CWC seems like a logical solution. This approach has been taken within the nuclear field, where the *International Convention for the*

⁸¹ Spiers 2010, 171

⁸² Marauhn 1998, 527

⁸³ Martin, Salisbury and Takacs 2013

⁸⁴ Hart 2016, 12

Suppression of Acts of Nuclear Terrorism (ICSANT) entered into force in 2007.⁸⁵ Central provisions of this treaty include the requirement for the criminalization of nuclear terrorism, the requirement for State Parties to prevent offenses with “*all practicable measures,*” and cooperating with other states to prevent and prosecute nuclear terrorism.⁸⁶ Also, the *International Convention for the Suppression of Terrorist Bombings* requires State Parties under some specific circumstances to criminalize “*the unlawful and intentional use of explosives and other lethal devices,*” under which also the chemical weapons belong.⁸⁷ Moreover, the *Rome Statute of the International Criminal Court* defines the use of chemical weapons as a war crime in international and non-international armed conflicts.⁸⁸

The CWC already includes several provisions these treaties do, but it has one notable shortcoming: it does not contain a requirement of State Parties to establish criminal jurisdiction applicable also to foreign nationals who commit described offenses somewhere else and are found on the territory of a State Party. Neither does it contain an extradition provision.⁸⁹ Because the *Terrorist Bombings treaty* does not apply to internal state acts, nor to the military forces’ activities during their official duties, and neither it nor the *Rome Statute* defines other acts prohibited by the CWC – such as development, production, or acquisition of chemical weapons – as crimes, there is a kind of loophole within the regulation that could be filled with a new treaty.

The Harvard Sussex Program on CBW Armament and Arms Limitation suggested in its draft convention that the chemical and biological terrorism treaty could include a requirement for the criminalization of knowingly developing, producing, acquiring, retaining, transferring, or using chemical (and biological) weapons, assisting with these activities and threatening to use these weapons. Provisions of the treaty would apply to any person found at the State Party’s territory, no matter where the act was committed or what is the nationality of the person in question. Further, the State Parties would be required to either prosecute or extradite the alleged offender, investigate the case when informed that a possible offender is currently in their territory, and cooperate with other States in investigations.⁹⁰

Of suggested provisions, especially the principle to extradite or adjudicate, would strengthen the current framework and enhance the deterrence effect.⁹¹ Also, for example, articles relating to chemical facility security suggested trade controls and controlling illicit trade and cooperation to prevent it

⁸⁵ United Nations Office on Drugs and Crime 2016, 23

⁸⁶ International Convention for the Suppression of Acts of Nuclear Terrorism Article 5 and Article 7

⁸⁷ International Convention for the Suppression of Terrorist Bombings Article 1 (3) (b)

⁸⁸ Rome Statute of the International Criminal Court Article 8 (b) (xviii) and 8 (e) (xiv)

⁸⁹ Organization for the Prohibition of Chemical Weapons 2001

⁹⁰ *Ibid.*

⁹¹ *Ibid.*

could be incorporated into the treaty framework to create as comprehensive tool to tackle chemical terrorism as possible. Precisely the possibility of comprehensiveness would be the most significant benefit of the suggested treaty.

While the solely criminal law approach would not significantly strengthen the already existing chemical weapons control regime, a multidisciplinary and comprehensive approach could. By primarily focusing on terrorism and recognizing the separateness of the issue, the convention could help solve some issues the CWC has been struggling to deal with. The treaty especially designed to prevent chemical (and biological) terrorism, could offer an avenue to link the particular issues of international terrorism and the risk of proliferation of chemical weapons more closely together. With no need to consider the problems relating to states' stockpiles, mechanisms of the treaty could be aimed precisely where they are needed most, and different acquisition possibilities could be specifically tackled by creating at least some ground rules for their blocking and comprehensive international cooperation. Suppose various aspects relating to chemical terrorism, such as acquisition possibilities, effective criminal liability, and several supporting articles, were put together and preferably linked to the OPCW verification and monitoring structures. In that case, the treaty could open a new dimension for international combat against chemical (and biological) terrorism.⁹²

However, the creation of new international treaties is a long and often complex process, and the initiatives presented have so far not led to a treaty, which implies a lack of political will to negotiate it. Also, instead of a completely new treaty, it is a valid point that it might be more beneficial to use resources for strengthening the implementation of already existing efforts and mechanisms. However, it is worth considering that since the current tools have shown to lack efficiency in answering special issues relating to chemical terrorism, it might be time to start to think about new approaches.

This chapter presented an idea about the possibility of a new chemical terrorism-specific treaty that could help to solve some issues, for example, the CWC has been struggling with. After considering the possible contents and benefits of the proposed treaty, it is suggested that if articles tackling different aspects of chemical terrorism were included, the treaty might be a needed tool for answering the threat of chemical terrorism, especially if effective cooperation also with the OPCW was guaranteed.

⁹² *Ibid.*

5. Conclusions

This paper has discussed the issues relating to preventing terrorist organizations from acquiring chemical weapons by presenting suggestions for strengthening the current regulatory framework. Especially, the focus has been on trade controls, and their monitoring within the CWC framework, but also ideas beyond the CWC have been presented. At the center of the issue are the large number of different chemicals that can be used for peaceful purposes and as chemical weapons, the size of their trade, different possible channels for terrorist organizations to acquire chemical weapons, and the contradiction between interest to control the trade and the need not hamper the important civilians uses of chemicals,⁹³ which all together make the control and monitoring efforts difficult.

Possible measures to strengthen the system discussed in this paper include updating the Schedules of Chemicals of the CWC more regularly and comprehensively, creating a common and flexible exports controls regime inside the CWC, and a practical arrangement to monitor it. Further, the importance of existing multidisciplinary and voluntary mechanisms is enhanced, and finally, an idea about the new chemical terrorism treaty is brought to the discussion. Next, some concluding remarks on these topics and the complexity of the issue are presented.

When considering the situation where the chemicals weapons used by terrorist organizations are acquired – in one way or another – from the state stockpiles, the current CWC seems to be a right and quite an effective tool to prevent the threat because with its advanced obligations, it aims to destroy these stockpiles under international verification and has made remarkable progress with it. However, when the chemicals are acquired from legal markets or through illicit trafficking, the issue becomes more complex because terrorist organizations need to be prevented from acquiring chemical weapons also through these channels, and for this, the CWC, at least in its current state, is not the best possible tool.

This paper, however, proposed ideas to develop the CWC's possibilities to prevent the acquisition of chemical weapons also from other sources than from the state stockpiles. Suggested possibilities include updating the Schedules of Chemicals of the CWC more effectively to secure effective monitoring and verification for a broader range of chemicals and to ensure that the current schedule-based transfer restrictions and verification requirements of the CWC remain relevant and effective. However, controlling non-scheduled chemicals – and Schedule 2 and 3 chemicals more effectively – is extremely

⁹³ Martin, Salisbury and Takacs 2013

important because these chemicals are the most likely ones to be used for chemical terrorism. Therefore, a common trade control regime based on case-by-case assessment built into the CWC was proposed to create a more comprehensive and flexible control mechanism for these chemicals. Because chemicals used as weapons can be acquired through several routes, all of them can never be entirely blocked. However, common export controls would significantly contribute to the non-proliferation regime, especially if monitored and implemented in close cooperation with the private sector.

To enable the functioning of the suggested control mechanism, this paper further presented constructing of the monitoring mechanism within the CWC and sharing the monitoring activities more widely to the private sector to effectively monitor a more comprehensive range of chemical transfers. The suggested three-level system would create better monitoring possibilities and also enable closer cooperation with the private sector, which can be considered as a beneficial effect in itself because the basic requirements for states to comply with their CWC obligations require control over private facilities, controlling trade and importantly, receiving the information from private industry.⁹⁴

Also, closer cooperation and integration of the private sector to the mechanisms of the CWC could help finding a balance between industry and control interests and secure that peaceful uses of chemicals are not hampered with the monitoring arrangements. Because chemicals are also a large business, private actors would not likely want to object to tight trade restrictions.⁹⁵ However, creating a control mechanism in close cooperation with all the relevant actors and incorporating it from the beginning to the usual business processes would help to ease the contradiction between industry interests and interest to restrict the trade of chemicals.

Further, when dealing with complex issues like chemical weapons acquisition possibilities of terrorist organizations, comprehensive cooperation between private and public sectors at the national and international level is the only possibility to deal with the threat comprehensively. Moving the monitoring closer to where the transfers in reality happen would help securing the practical national implementation of the CWC, which has become even more critical than before and can be seen as an important counter-terrorism action in itself.⁹⁶

However, although the CWC and its monitoring mechanisms were further developed as suggested, considerations of other measures are also essential. Multidisciplinary awareness-raising, oversight, and

⁹⁴ Bothe 1998, 550-551

⁹⁵ Oppenheimer 2008

⁹⁶ Organization for the Prohibition of Chemical Weapons 2021, Preventing the Re-Emergence of Chemical Weapons

strengthening the regional and subregional cooperation and communication are phrases heard on many occasions and often dismissed as general and imprecise measures. However, if all the relevant actors were working together, several international issues were easier to solve. It is essential to understand that the chemical weapons control regime does not exist in a vacuum. To prevent terrorist organizations from shocking the world with a chemical weapons attack, regulatory and voluntary mechanisms, as well as cooperation and information and practice sharing between different fields, public and private sector, and international and national level are all needed.

To create one comprehensive tool to tackle the issue, this paper also discussed creating a new chemical terrorism treaty specially designed to tackle different issues related to chemical terrorism. If also linked closely to the existing mechanism within and outside the CWC framework and created from multidisciplinary premises, this treaty could offer a unique, comprehensive, and specific tool to tackle the complex issues surrounding chemical terrorism effectively. The treaty could even provide a framework for a more centered approach to the subject not discussed in this paper by detail: the possibility for terrorist organizations to acquire chemical weapons through illicit trade channels.

It is not to deny that some of the suggestions presented in this paper might seem a bit far-reaching. Still, because existing mechanisms – as advanced as they are – are not best suited to answer the new type of complex, low-tech, and lower-scale threat of chemical terrorism,⁹⁷ new strategies, tools, and further development are needed. Terrorism is a complex phenomenon, and there are no fast or easy solutions to counter it. Although the issues are complex, it certainly does not mean that the international community should stop trying to solve them. In the end, preventing dreadful chemical weapon attacks from happening in the future should be an essential goal for all related actors – states, international organizations, and chemical industry alike.

⁹⁷ Trapp 2006, 30

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