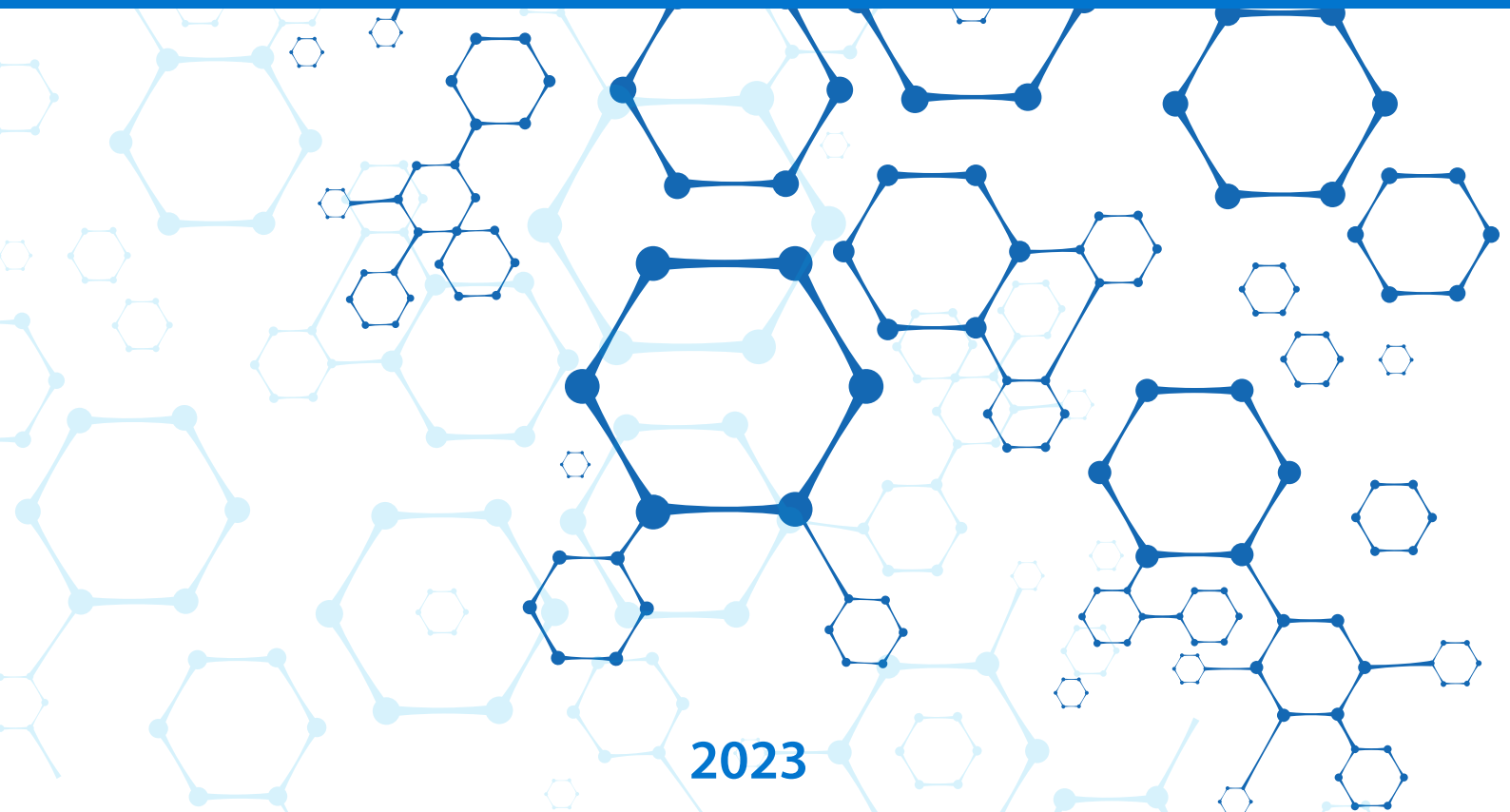




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# CONTENT

## NATO-UN STRATEGIC LEVEL COOPERATION ON CONSEQUENCE MANAGEMENT FOCUSING ON CBRN DEFENCE

Aleks Kozuchowski

Acknowledgements	9
Disclaimer	10
Executive Summary	11
1 Introduction	14
2 Scope, methodology and limitations of the research	15
3 Cooperation framework	16
3.1 Common documents	16
3.1.1 Joint Declaration on UN/NATO Secretariat Cooperation	16
3.1.2 Updated Joint Declaration on UN-NATO Secretariat Cooperation	17
3.2 NATO documents	17
3.2.1 The North Atlantic Treaty	17
3.2.2 Status of Forces Agreement	17
3.2.3 NATO Cooperation For-Disaster Relief in Peacetime	17
3.2.4 Partnership for Peace Status of Forces Agreement	18
3.2.5 NATO Policy on Cooperation for Disaster Assistance in Peacetime	18
3.2.6 EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief	18
3.2.7 Prague Capabilities Commitment (PCC)	18
3.2.8 Riga Summit Declaration	19
3.2.9 Bucharest Summit Declaration	19
3.2.10 NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats	20
3.2.11 NATO Strategic Concept	20

3.2.12	Non-Binding Guidelines for Enhanced Civil-Military Cooperation to Deal with the Consequences of Large-Scale CBRN Events Associated with Terrorist Attacks	21
3.3	UN documents	21
3.3.1	UN Charter	21
3.3.2	Draft Convention on Expediting the Delivery of Emergency Assistance	21
3.3.3	Framework Convention on Civil Defence Assistance	22
3.3.4	Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies	22
3.3.5	Oslo Guidelines	23
3.3.6	Sendai Framework	23
3.3.7	Draft Articles on the Protection of Persons in the Event of Disasters	24
3.3.8	INSARAG Guidelines	24
4	NATO-UN cooperation history	25
4.1	Bosnia	25
4.2	Kosovo refugee crisis	26
4.3	Afghanistan	26
4.4	Pakistan	27
4.5	Somalia	27
4.6	Cooperation in CBRN defence	27
5	NATO crisis management	29
5.1	NATO Disaster relief	29
5.1.1	Euro-Atlantic Disaster Response Coordinator Center (EADRCC)	30
5.2	NATO Consequence management	33
5.2.1	Consequence management in the area of CBRN	33
5.3	NATO Comprehensive approach	35
5.3.1	Comprehensive approach in the area of CBRN defence	36
6	UN crisis management	36
6.1	UN Disaster relief	36
6.1.1	UN Office for Coordination of Humanitarian Affairs (UNOCHA)	37
6.2	UN Consequence management	38

6.2.1	Consequence management in the area of CBRN defence	39
6.3	UN Comprehensive approach	39
6.3.1	Comprehensive approach in the area of CBRN defence	39
7	NATO Civil-Military Cooperation (CIMIC)	40
7.1	NATO Comprehensive Crisis and Operations Management Centre (CCOMC)	42
7.2	NATO Civil Emergency Planning Committee (CEPC)	42
7.3	NATO The Multinational NATO CIMIC Group (MNCG)	43
7.4	NATO CIMIC and CBRN defence	43
8	UN Civil-Military Coordination (UN-CMCoord)	45
8.1	UN Disaster Assessment and Coordination (UNDAC)	46
8.2	UN The Inter-Cluster Coordination Group (ICCG)	46
8.3	UN Humanitarian Country Team (HCT)	48
8.4	UN-CMCoord and CBRN defence	48
9	NATO-UN resource reliance	48
10	Information sharing	50
10.1	NATO information sharing policy	50
10.2	UN information sharing policy	52
11	NATO-UN cooperation assessment	52
12	Historical examples, findings and lessons identified	53
12.1	Terrorist attack in a subway station	53
12.1.1	Historical context: Tokyo Sarin Terrorist Attack	53
12.1.2	Findings and lessons identified	54
12.2	Explosion of chemical plant	54
12.2.1	Historical context: Jilin chemical factory explosion	54
12.2.2	Findings and lessons identified	54
12.3	Chemical leak	55
12.3.1	Historical context: Bhopal Disaster	55
12.3.2	Findings and lessons identified	55

12.4	Explosion of a nuclear power plant	55
12.4.1	Historical Context: Fukushima Nuclear Power Plant Explosion	55
12.4.2	Findings and lessons identified	55
12.5	Pandemic	56
12.5.1	Historical context: COVID-19 Pandemic	56
12.5.2	Findings and lessons identified	56
12.6	CBRN defence protection lay-out in support of international sports events	57
12.6.1	Historical context: Greece Olympics	57
12.6.2	Findings and lessons identified	58
13	Identified challenges in NATO-UN cooperation	58
13.1	Identified challenge in response capabilities and guidelines between NATO and UN	58
13.2	Identified challenge in policies	59
13.3	Identified challenge in hegemonic interests	61
13.4	Identified challenge in CIMIC doctrine	61
13.5	Identified challenge in fields of operation	61
13.6	Identified challenge in resource reliance	62
13.7	Identified challenge in common language	62
13.8	Identified challenge in communication	63
13.9	Identified challenge in after-action reports	64
13.10	Identified challenge in communication entry points	64
13.11	Identified challenge in practical exercise/cooperation	64
13.12	Identified challenge in vertical coordination.	65
14	Recommendations	65
14.1	Increased resource reliance	65
14.2	Common training and exercises	66
14.3	Formalized and common after-action reports	67
14.4	Additional practical cooperation	67
14.5	Additional funding and capabilities	68
14.6	Improving points of contact to the UN	68
14.7	Improving vertical coordination	69
14.8	Updating the CBRN inventory	69
14.9	Reviewing documents and doctrines with particular attention to common language	70

14.10	Updating the information sharing practices of NATO and the UN	70
14.11	Comprehensively preparing for future CBRN scenarios	70
14.12	Identifying new opportunities for cooperation in areas of common interest	71
14.13	Identifying cooperation situations in CIMIC and UN-CMCoord	71
15	Further research	72
Annex 1	Bibliography	73
Annex 2	USAR Teams additional information	82
Annex 3	Bosnia Operations	83
Annex 4	Conflict in Kosovo	84
Annex 5	Additional information on Afghanistan	85
	Afghanistan	85
	Challenges with a comprehensive approach in Afghanistan	85
	NATO-UN cooperation in Afghanistan	86
Annex 6	EADRCC disaster operations	87
Annex 7	EADRCC exercises	88
Annex 8	UN types of sensitive information	89
Annex 9	CIMIC crisis management five main areas	90
Annex 10	UN main bodies	91
Annex 11	Historical cases of information sharing NATO-UN	92
Annex 12	Interview UNOCHA	93
Annex 13	UNODA email exchange	110
Annex 14	Interview UNODA	113
Annex 15	Interview EADRCC	115
Annex 16	CIMIC COE email exchange	124
Annex 17	Interview CIMIC COE	128
Annex 18	Interview ACDC Part 1	137
Annex 19	Interview ACDC Part 2	145
Annex 20	Interview ACDC part 3	146
Annex 21	Interview JCBRN Defence COE on Jordan	147
Annex 22	Interview on Greece Olympics 2004 and NATO-UN cooperation	151
Annex 23	CMDR COE email exchange	158
Annex 24	NATO-UN Terminology	160
Annex 25	Abbreviations	164

## CBRN DEFENCE IN 2030 AND BEYOND

Veselin Angelov Kalamarov

Executive Summary	169
1 Introduction	173
1.1 Limitations	174
2 Changes in the global security	174
2.1 Threats	176
2.2 Threat multipliers	178
3 Political level expectations	189
3.1 NATO-EU cooperation	195
4 CBRN defence discussions	197
5 Requisite capabilities	199
6 Conclusion	201
Appendices	
Appendix A	209
Appendix B	211
Appendix C	216
Appendix D	217
Appendix E	218
Appendix F	219
References	222
NATO COEs SUPPORT TO NATO IN CASE OF CRISIS	
Zdeněk Hýbl	227
THE ROLE OF SPACE FOR NATO'S NUCLEAR DEFENCE STRATEGY	
Jasper R. Krause	232
Bibliography	237



# NATO-UN Strategic Level Cooperation on Consequence Management Focusing on CBRN Defence

Aleks Kożuchowski

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## Executive summary

The North Atlantic Treaty Organization (NATO) and the United Nations (UN) are both international organisations with different objectives and goals. Although they differ from each other, both organisations cooperate in several areas. One of the areas of cooperation is crisis management. This study focuses and discusses one particular area of NATO-UN cooperation in crisis management, namely chemical, biological, radiological, and nuclear (CBRN) crisis management. The aim of the study is to identify challenges in NATO-UN cooperation that prevent closer cooperation in the area of CBRN defence and provide recommendations to overcome these challenges. The study focuses on CBRN incidents in general, meaning that man-made and natural CBRN disasters are included in the scope of the study. However, there are some limitations to the study. Mainly, the study is solely based on publicly available sources. Furthermore, although the role of the European Union (EU) is discussed briefly in some contexts, the EU has not been analyzed in-depth in this study. Lastly, the topics of civil protection and Weapons of Mass Destruction (WMD) and CBRN non-proliferation fell outside the scope of this study. It is advisable to continue the research into the above-mentioned topics. In order to assess the cooperation that exists between NATO and the UN, several aspects of this cooperation have been analyzed pertaining to crisis management, and specifically CBRN crisis management. The main results of the study have been cumulated in chapter 13 “Identified challenges in NATO-UN cooperation” and chapter 14 “Recommendations”.

It has been found that inter-organisational cooperation improves when organisations rely on each other’s support. It is therefore recommended to increase the reliance between the two organisations through several methods. As the UN does not possess over CBRN capabilities or sophisticated CBRN guidelines, NATO could remedy this shortcoming by offering its own CBRN capabilities and expertise to the UN. Joint CBRN exercises and training, joint policies on CBRN defence, and joint operations in the area of CBRN defence might serve as examples of areas where NATO might provide its CBRN expertise. Additionally, the crisis-stricken nations themselves could provide specific goals to the UN and NATO, preventing any one of them from overtaking a crisis management operation and thereby incentivizing reliance on each other. Lastly, it is recommended to identify new avenues of cooperation where both NATO and the UN could rely on each other’s assistance. The area of CBRN incidents and WMD non-proliferation might serve as an opportunity to enhance mutual cooperation.

Common training and exercises can be utilized in the area of CBRN defence to improve cooperation. NATO and the UN already conduct joint exercises through several initiatives such as the Action for Peacekeeping Initiative. It is advisable to expand the current exercises and training initiatives into the area of CBRN defence, thereby strengthening CBRN cooperation. Furthermore, it is also recommended to invite UN liaison officers and observers to NATO Crisis Management Exercises and NATO liaison officers, observers or CBRN assets to UN Disaster Relief Exercises. Additionally, wargaming utilizing CBRN crisis management scenarios could prove to be beneficial for NATO-UN CBRN cooperation. Moreover, it has been found that the UN Disaster Assessment and Coordination (UNDAC) members are not trained in CBRN defence by the UN due to time constraints. It would be advisable to create a NATO CBRN training for UNDAC members with an acceptable timeframe as this would strengthen current NATO-UN cooperation and improve CBRN crisis management abilities of the UNDAC members. Lastly, it is recommended to invite other relevant actors into the above-mentioned examples, such as the EU, in order to create a comprehensive cooperation in the area of CBRN defence.

Several challenges were identified with the creation of after-action reports in the UN and NATO. It has been identified that in the NATO, not all after-action reports are formalized but they are at times done on an informal basis. This results in the after-action report not existing in the database to be utilized for lessons learned. Furthermore, on the UN side, it has been found that crisis management participants do not always represent their contributions truthfully, which results in the creation of flawed after-action reports. This is due to the fact that after-action reports are often done internally by the nations. It is therefore recommended to formalize all after-action reports in NATO, and it is advisable to encourage the writing of after-action reports in a collaborative sense with all crisis management participants.

Although NATO and the UN cooperate on CBRN matters in several ways, it is advisable to expand this cooperation to other areas of common interest to improve practical cooperation. Opportunities arise for further NATO-UN CBRN cooperation, for example in the Middle East. It is recommended to take advantage of such opportunities and expand into new areas of common interest. It is also advisable for the UN to utilize the expertise of NATO bodies and COEs such as the Crisis Disaster Management Response Centre of Excellence (CDMR COE) and the Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence (JCBRN Defence COE).

To make expansion of practical cooperation possible, it is recommended to provide additional funding to different NATO bodies and NATO International Staff. It is advisable to interview the bodies that are involved with the UN and crisis management in general on what is exactly needed to make improvement and expansion into areas of common interest possible. Furthermore, it is recommended to expand the CBRN capabilities of NATO and the UN by including other relevant CBRN defence actors, such as the EU. Cooperation with the EU would be beneficial as it possesses CBRN expertise and could provide additional funding to common projects.

In order to improve the flow of communication between NATO and the UN, it is recommended to improve the points of contact to the UN. Improvement can be potentially achieved in several ways. It is advisable to expand the pool of liaison officers so that NATO staff members could get in contact with UN bodies swifter. Furthermore, it is advisable to create a list of all UN bodies which would include a summary of their responsibilities and contact points in order to minimize the time NATO staff members have to seek out UN bodies and their contact points. It is recommended to make this list widely available to all relevant NATO bodies. Additionally, when it comes to communication on crisis management matters, a permanent communication element in the Comprehensive Crisis and Operations Management Centre (CCOMC) to the UN could prove to be beneficial as this would result in reduced communication time and therefore, improved crisis management.

It is furthermore recommended to improve the vertical coordination between different layers of crisis management. It has been found that vertical coordination between crisis management layers such as peace and security, humanitarian aid and development is hindered by the centralized decision-making systems of some nations, discouraging vertical coordination. It would be beneficial to improve vertical coordination by creating workshops and conferences of staff members that are involved in different crisis management layers with the aim to discuss the challenges that they experienced in vertical coordination. Additional research into this topic is also recommended.

It is recommended to update the CBRN inventory of NATO in order to be aware of relevant and applicable CBRN defence capabilities able to cope with CBRN incidents and WMD non-proliferation in cooperation with the UN. The last time the CBRN inventory was updated was in 2017. For future CBRN crisis

management operations, it would be beneficial to be aware of the CBRN capabilities that are available to NATO and that could potentially be offered to the UN. It is advisable to involve the JCBRN Defence COE in this process as it possesses expertise in this area.

Differences in terminology and definitions between the UN and NATO have also been identified. It is recommended that in the future, documents are reviewed, rewritten, and written with this aspect in mind, and it is advisable to use common terminology and definitions in documents pertaining to CBRN defence in order to mitigate miscommunication between both organisations. It would also be beneficial to create a common set of CBRN-related language (definitions and terminology) between NATO and the UN, but also involve other relevant actors into this process such as the EU.

It is recommended for the UN to review its process of information handling and improve its information classification system as it has been found that, historically, NATO Countries were reluctant to share their information with the UN due to a fear that the provided information might leak out. Furthermore, it has been discovered that NATO often overclassifies its information, resulting in vital information not being shared with relevant parties like the UN. It is therefore advisable to mostly operate on information releasable to the UN and review the current classification mechanism of NATO to discover why information is being overclassified and how this challenge can be overcome.

Based on historical examples it can be concluded that CBRN incidents remain a threat and it can be expected that more CBRN incidents will occur in the future. It is therefore recommended for the UN and NATO to prepare for such potential incidents through exercises, common policies, additional crisis management plans, and the creation of a common CBRN-incident lessons learned mechanism. Analyzing previous CBRN disasters and identifying challenges in their crisis management process can highlight potential shortcomings which could be avoided in the future. NATO's lessons learned process could be used as a basis for a common NATO-UN lessons learned mechanism. Additionally, it is also advisable to include other relevant actors in this process, particularly the EU. The JCBRN Defence COE, with its CBRN expertise, could also be involved in this process.

It is further recommended to identify new areas of cooperation where NATO and the UN have a common interest. Identifying new areas of cooperation that are of common interest and are not politically sensitive might incentivize cooperation further.

Lastly, it has been discovered that the NATO Civil-Military Cooperation (CIMIC) and UN Civil-Military Coordination (UN-CMCoord) doctrines differ from each other in various ways. However, both doctrines are more compatible in certain situations while incompatible in others. It is therefore recommended to identify situations where both doctrines can complement each other as well as identify situations where the doctrines would encounter difficulty with cooperating. This would prepare the staff of both NATO and the UN for situations where their doctrines are incompatible.

Continuous improvement in cooperation between relevant crisis management actors such as NATO, the UN, and other organisations such as the EU is imperative for an effective international crisis management process. It is therefore important to continue the research into this topic to identify further challenges in cooperation that these organisations encounter and provide additional recommendations to overcome these challenges.

## 1 Introduction

The NATO Strategic Concept outlines the three essential key tasks of NATO in Article 4, namely: Collective defence, Crisis management, and Cooperative security<sup>1</sup>. As collective defence is only used during times of conflict, NATO generally operates on the principles of crisis management and cooperative security during peacetime. In order for crisis management to work effectively, NATO is seeking national and international partners to enhance cooperation and the quality of crisis management operations. Particularly the cooperation with international partners could be very beneficial for crisis management. The term “cooperation” is operationalized in this study as “adjusting the behavior to the actual or anticipated preferences of others, through a process of policy coordination”<sup>2</sup>. One of the international partners that were previously discussed by the JCBRN Defence COE in the document titled “Comprehensive Publication on Civil-Military & NATO – EU Cooperation” was the EU and its role in CBRN crisis management<sup>3</sup>. Another partner of interest for NATO is the UN.

The UN is a particularly important partner in crisis management as it is the main focal point for the coordination of international disaster relief in crisis management on the international stage<sup>4</sup>. Furthermore, when it comes to CBRN and WMD non-proliferation, it is the UN that creates guidelines and policies on that matter, while organisations such as NATO support the UN in the implementation and adherence to these policies and guidelines<sup>5</sup>. NATO’s interest in strengthening its cooperation with the UN can be demonstrated by the signing of the Joint Declaration on UN/NATO Secretariat Cooperation in 2008, which states that “we agree to further develop the cooperation between our organisations on issues of common interest, in, but not limited to, communication and information-sharing, including on issues pertaining to the protection of civilian populations; capacity-building, training and exercises; lessons learned, planning and support for contingencies; and operational coordination and support”<sup>6</sup>. The area of CBRN defence can be included in all the previously mentioned common interests which means that NATO-UN cooperation on the subject of CBRN defence and, specifically, CBRN crisis management, could be seen as justified by this Declaration. In 2018 this Declaration was updated and signed again by the Secretary Generals of NATO and the UN<sup>7</sup>. The most important change in the updated Joint Declaration is the addition of point 3 which describes the progress of cooperation between the two organisations, the need to continue cooperation due to a “changing global security environment” and the imperative to strengthen the capacity of national authorities to “address emerging crises”<sup>8</sup>. After signing the 2018 Joint Declaration, the Secretary General of NATO, Jens Stoltenberg, said “While our mandates differ, we already cooperate across a range of issues, and there is a lot more that NATO and the UN can do together. So, I welcome the conclusion of the updated Joint Declaration, and look forward to putting our ideas into action”<sup>9</sup>. The 2010 NATO Strategic Concept also mentions the UN as a key partner and states the desire to strengthen cooperation<sup>10</sup>. Additionally, the NATO 2030 document specifies in the “recommendations”

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<sup>1</sup> NATO Strategic Concept, 2010, pp. 7 & 8.

<sup>2</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 2.

<sup>3</sup> Comprehensive Publication on Civil-Military & NATO – EU Cooperation, 2020.

<sup>4</sup> NATO Logistics Handbook, 1997, Chapter 11: Civil Emergency Planning, Art. 1125.

<sup>5</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 6.

<sup>6</sup> Joint Declaration on UN/NATO Secretariat Cooperation, 2008, Art. 4.

<sup>7</sup> Updated Joint Declaration on UN/NATO Secretariat Cooperation, 2018.

<sup>8</sup> Updated Joint Declaration on UN/NATO Secretariat Cooperation, 2018.

<sup>9</sup> Nato and UN sign updated joint declaration on cooperation, 2018.

<sup>10</sup> NATO Strategic Concept, 2010, p. 27.

section that continued outreach to international organisations such as the UN is needed to establish a cooperative security network<sup>11</sup>.

On the side of the UN the Sendai Framework, ratified in Japan in the city of Sendai (Japan), states that international, as well as regional, subregional, and transboundary, cooperation is vital for the reduction of disaster risk and that the current mechanisms may require strengthening for enhanced support and better implementation<sup>12</sup>. This clearly proves the political will of both organisations to cooperate and strengthen each other during crisis management operations.

This study will provide a view on the current level of cooperation between NATO and the UN in the area of CBRN defence, and more specifically, CBRN crisis management, and present recommendations on how to strengthen that cooperation. The document is divided into three parts:

- 1) The first part provides context on the cooperation framework of NATO and UN, the history of cooperation between NATO and the UN, NATO and UN crisis management approaches, NATO and UN civil and military cooperation approaches, information sharing standards of both organisations, and finally several findings and lessons identified where NATO and the UN might cooperate in the future.
- 2) The second part of the document contains the identified challenges in NATO-UN cooperation which points out the differences between the two organisations based on the research from part one.
- 3) The third part contains recommendations on how NATO and UN cooperation in CBRN incidents might be improved.

## 2 Scope, methodology and limitations of the research

This study focuses on the cooperation between NATO and the UN in crisis management, and more specifically, CBRN crisis management. In this study, a crisis is defined as the “disruption of the equilibrium within a nation or among several nations, creating tensions which might lead to serious turmoil or to a conflict” and crisis management is defined as “the coordinated actions taken to defuse crises, prevent their escalation into an armed conflict and contain hostilities if they should result”<sup>13</sup>. Although military cooperation between NATO and the UN is mentioned, as both organisations have cooperated during times of conflict, the study focuses on crisis management operations during peacetime, and more specifically, CBRN crisis management operations and NATO-UN cooperation during such events. The aim of the study is to support improving the cooperation between NATO and the UN during peacetime CBRN crisis management operations.

The study is based on desk research and expert interviews. The desk research consists of analyzing NATO and UN documents that are widely available on the internet such as policies, agreements, and doctrines. Academic sources have also been utilized during this study, primarily to analyze the history of cooperation between the two organisations. Furthermore, expert interviews have been conducted with personnel from NATO as well as UN bodies. The information gathered from the interviews was mostly utilized for

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<sup>11</sup> NATO 2030: United for a New Era, 2020, p. 35.

<sup>12</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 10. (This document will be further explained in section 3.3.6) & Rowling M., New global disaster plan sets targets to curb risk, losses, 2015.

<sup>13</sup> NATOTerm, 2015 & NATOTerm, 2016.

historical examples, findings and lessons identified, identified challenges, and subsequent recommendations.

There are three main limitations to the study. Firstly, this study is solely based on, and created from, publicly available documents and research papers, as well as information obtained from people in the field. Therefore, classified documents and information that may be relevant for this study will not be utilized as they may not be publicly available. Secondly, due to the first limitation, some topics could not have been analyzed in-depth. Some examples of this limitation can be found in section 4 "NATO-UN cooperation history", such as the case of Somalia or Jordan. Furthermore, although the EU is discussed briefly throughout the study, its role is not discussed in depth. Lastly, due to the broadness of the topic, it was not possible to cover every single aspect of NATO-UN cooperation in CBRN crisis management in this study such as civil protection. WMD/CBRN non-proliferation has also been omitted in this study as this topic is not seen as an integral part of CBRN defence. Therefore, it is advisable to further continue the research into the above-mentioned topics.

### 3 Cooperation framework

The cooperation framework provides a basis for all NATO and UN operations, including cooperation. When discussing crisis management operations, it is vital to point out that the legal framework of a stricken country plays a crucial role; however, such frameworks differ from nation to nation. Therefore, only international legal documents that can provide legal guidance in the area of international crisis management endeavors, will be summarized in this section. The documents are divided into three groups, common documents, NATO documents, and UN documents.

#### 3.1 Common documents

##### 3.1.1 Joint Declaration on UN/NATO Secretariat Cooperation

The Joint Declaration, signed in 2008, declared that the Secretary Generals of both organisations desire to strengthen and expand the cooperation between the UN and NATO as such cooperation has proven to be effective in historical examples<sup>14</sup>. Such cooperation would help to maintain peace and security in the world. The Declaration has been proposed by NATO to the UN in 2005 during the NATO-UN operations in Afghanistan. However, powerful nations that were part of the UN but not part of NATO, as well as several UN bodies, opposed this Declaration of cooperation stating that this Declaration could endanger UN's operational autonomy and the safety of UN personnel<sup>15</sup>. The Declaration was watered down in order to satisfy the opposing parties and convince them to sign the document<sup>16</sup>. Although the opposing parties were not satisfied, in 2008 the UN Secretary General's signed the document, as he had the authority to sign joint Declarations without the formal agreement of Member States, allowing him to bypass the Security Council and the General Assembly where the proposal would have been opposed<sup>17</sup>. Although the document was prepared in 2005 and signed in 2008, due to the common opposition of several Member States of the UN and several UN bodies, the signing of the document was delayed by three years<sup>18</sup>.

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<sup>14</sup> Joint Declaration on UN/NATO Secretariat Cooperation, 2008.

<sup>15</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 135.

<sup>16</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 135.

<sup>17</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 135.

<sup>18</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 135.



### 3.1.2 Updated Joint Declaration on UN-NATO Secretariat Cooperation

The previously mentioned Declaration has been updated and signed again in 2018 by the Secretary Generals of the UN and NATO, continuing the cooperation between the two organisations. The updated Declaration states news issues of common interest. The issues include, but are not limited to, “countering the threat posed by improvised explosive devices; training and preparedness; capacity building and defence sector reform; the protection of civilians; advancing the Women, Peace and Security, Youth, Peace and Security and the Children and Armed Conflict agendas; countering terrorism and preventing violent extremism; lessons learned, planning and support for contingencies; cyber defence; and operational coordination and support”<sup>19</sup>. In order to successfully plan for contingencies and support nations during them, the area of CBRN defence is of particular importance as CBRN incidents, especially large-scale CBRN incidents, have a high impact on health, environment, economy, and the security of nations<sup>20</sup>.

## 3.2 NATO documents

### 3.2.1 The North Atlantic Treaty

The North Atlantic Treaty, signed in 1949, forms the legal basis of the North Atlantic Treaty Organization. It contains fourteen Articles that bind the member countries to several responsibilities<sup>21</sup>. The most prominent article is Article 5, which obligates the States in the Alliance to consider an attack against one Member of the Alliance, an attack against all<sup>22</sup>. This obligates NATO member countries to retaliate against an aggressor using “such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area”<sup>23</sup>. However, NATO member countries can also be involved, and cooperate, in non-Article 5 operations such as crisis management operations. Furthermore, Article 4 of the Treaty specifies that the NATO member countries will consult each other if the political independence, territorial integrity, or security of any Member is threatened<sup>24</sup>.

### 3.2.2 Status of Forces Agreement

The Status of Forces Agreement (SOFA) of 1951 explains the terms under which NATO forces of one State are allowed to stay and operate in another NATO member country. It describes the details documentation, jurisdiction, potential damage caused, etc. It specifies that the autonomy and law of the receiving country should be respected<sup>25</sup>.

### 3.2.3 NATO Co-Operation For-Disaster Relief in Peacetime

The two-page document from 1957 outlines the mechanism of a joint-NATO crisis response to natural disasters. It states that a disaster-stricken NATO nation should ask NATO for aid and specify what kind of aid it needs<sup>26</sup>. The provided assistance, called Civil Defence Help, can include personnel, equipment, and aid to the injured<sup>27</sup>. Furthermore, the document discusses a mechanism whereby NATO member countries specify what kind of assistance they would be willing and ready to provide should such a need arise<sup>28</sup>.

<sup>19</sup> Updated Joint Declaration on UN/NATO Secretariat Cooperation, 2018.

<sup>20</sup> Bijl. T., JCBRN Defence COE Comprehensive Publication on Civil-Military & NATO-EU Cooperation, 2021, p. 93.

<sup>21</sup> The North Atlantic Treaty, 1949.

<sup>22</sup> The North Atlantic Treaty, 1949, Art. 5.

<sup>23</sup> The North Atlantic Treaty, 1949, Art. 5.

<sup>24</sup> The North Atlantic Treaty, 1949, Art. 4.

<sup>25</sup> Agreement regarding the Status of Forces of Parties of the North Atlantic Treaty, 1951.

<sup>26</sup> NATO Co-Operation for Disaster Relief in Peacetime, 1957.

<sup>27</sup> NATO Co-Operation for Disaster Relief in Peacetime, 1957.

<sup>28</sup> NATO Co-Operation for Disaster Relief in Peacetime, 1957.

### 3.2.4 Partnership for Peace Status of Forces Agreement

In 1995 the SOFA was extended into a “Partnership for Peace” (PfP) framework, which includes non-NATO countries into the SOFA agreement that regulates the rights and privileges of foreign NATO forces, as stated by Article 2<sup>29</sup>. The PfP includes many non-NATO nations, including Russia, Belarus, and Ukraine<sup>30</sup>.

### 3.2.5 NATO Policy on Cooperation for Disaster Assistance in Peacetime

The 1995 Policy on Cooperation for Disaster Assistance in Peacetime states that NATO member countries, NATO Partner States, a stricken nation, or a relevant international organisation can request assistance of NATO if they are stricken by a disaster, even outside of “NATO’s boundaries”<sup>31</sup>. However, the document emphasizes the fact that the UN is the primary “focal point for the coordination of international disaster relief” and that NATO does not seek to usurp that position<sup>32</sup>. In the area of crisis management, NATO’s role is potentially three-fold<sup>33</sup>:

“to act when requested as a medium for information sharing and cooperation among NATO member countries, Partner countries and relevant international organizations;

to take on any assisting coordinating role as may be identified; and

to provide disaster assistance where appropriate NATO resources are available as may be identified”.

Additionally, the steps that the Director of the Civil Emergency Planning Committee (CEPC) will take during a request for aid are also outlined in this document.

### 3.2.6 EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief

Approved in 1998, the EAPC Policy expands the cooperation of the Euro-Atlantic Partnership Council (EAPC) in the international response to disasters. This policy emphasizes the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) as being the primary focal point during international crisis management operations<sup>34</sup>. Two main topics that were agreed upon through this policy were the establishment of the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) at the NATO Headquarters (HQ) and the utilization of a Euro-Atlantic Disaster Response Unit (EADRU) in a crisis-stricken EAPC nation<sup>35</sup>. Furthermore, the Policy specifies the duties of the EADRCC before and during a request for assistance from UNOCHA<sup>36</sup>.

### 3.2.7 Prague Capabilities Commitment (PCC)

During the NATO Prague Summit of 2002, the NATO member countries have made commitments to improving the operational capabilities of their armed forces<sup>37</sup>. Specific goals and deadlines have been established for individual NATO member countries to improve their military capabilities. The NATO

<sup>29</sup> Agreement among the States Parties to the North Atlantic Treaty and the other States participating in the Partnership for Peace regarding the Status of their Forces, 1994.

<sup>30</sup> *Signatures of Partnership for Peace Framework Document*, 2020.

<sup>31</sup> NATO Logistics Handbook, 1997, Chapter 11: Civil Emergency Planning, Art. 1124a.

<sup>32</sup> NATO Logistics Handbook, 1997, Chapter 11: Civil Emergency Planning, Art. 1125.

<sup>33</sup> NATO Logistics Handbook, 1997, Chapter 11: Civil Emergency Planning, Art. 1125.

<sup>34</sup> EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief, 1998, Art. 1.3.

<sup>35</sup> EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief, 1998, Art. 2.1.1 & 2.1.2.

<sup>36</sup> EAPC Policy on Enhanced Practical Cooperation in the Field of International Disaster Relief, 1998.

<sup>37</sup> Prague Capabilities Commitment (PCC), 2011.

member countries have agreed to improve their capabilities in 400 areas which covered eight fields of military operations, which were<sup>38</sup>:

- Chemical, biological, radiological, and nuclear defence;
- Intelligence, surveillance, and target acquisition;
- Air-to-ground surveillance;
- Deployable and secure command, control, and communications;
- Combat effectiveness, including precision-guided munitions and suppression of enemy air defences;
- Strategic air- and sealift;
- Air-to-air refuelling;
- Deployable combat support and combat service support units.

Furthermore, the PCC endorsed the creation of several CBRN defence capabilities such as a “Prototype Deployable NBC Analytical Laboratory; a Prototype NBC Event Response team; a virtual Centre of Excellence for NBC Weapons Defence; a NATO Biological and Chemical Defence Stockpile; and a Disease Surveillance system”<sup>39</sup>. However, one of the main CBRN defence capabilities that were established as a result of the PCC was NATO’s Combined Joint CBRN Defence Task Force (CJ-CBRND-TF) created in 2003<sup>40</sup>. It consists of the CBRN Joint Assessment Team (CBRN-JAT) and the CBRN Defence Battalion<sup>41</sup>. The task force is primarily trained for use in armed conflict; however, it can also be deployed in an event of a CBRN crisis situation<sup>42</sup>.

### 3.2.8 Riga Summit Declaration

The Riga Declaration, signed in 2006, deals with issues such as Afghanistan, Kosovo and, terrorism. The Summit Declaration also emphasizes the need to create a crisis management strategy for civilian purposes and mentions that NATO should actively engage in non-Article 5 crisis management operations<sup>43</sup>. Additionally, the need to strengthen cooperation in this regard with international organisations such as the UN is also mentioned<sup>44</sup>. Furthermore, the NATO Response Force (NRF) has been deemed to reach full operational capability<sup>45</sup>. The NRF will be used as a fast deployment force in case a crisis occurs, not only for NATO, but also for EU, UN, and national purposes<sup>46</sup>. It can be deployed worldwide after a five-day preparation time<sup>47</sup>. The NRF can be utilized for disaster consequence management operations, including CBRN crisis events as the previously mentioned CJ-CBRND-TF is part of the NRF<sup>48</sup>. It should be highlighted that the CJ-CBRND-TF can be deployed separately from the NRF.

### 3.2.9 Bucharest Summit Declaration

The 2008 Bucharest Summit Declaration discussed the key issues regarding NATO’s political and security agenda. Aside from discussing issues such as the continued presence in the Balkans and Afghanistan, the Summit emphasized the “comprehensive approach” and with that, a call for stronger cooperation

<sup>38</sup> Prague Capabilities Commitment (PCC), 2011.

<sup>39</sup> Prague Summit Declaration, 2003.

<sup>40</sup> NATO website. Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, 2020.

<sup>41</sup> NATO website. Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, 2020.

<sup>42</sup> NATO website. Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, 2020.

<sup>43</sup> Riga Summit Reader’s Guide, 2006, pp. 8 & 18.

<sup>44</sup> Riga Summit Reader’s Guide, 2006, p. 8.

<sup>45</sup> Riga Summit Reader’s Guide, 2006, pp. 11 & 37.

<sup>46</sup> Riga Summit Reader’s Guide, 2006, p. 11.

<sup>47</sup> Riga Summit Reader’s Guide, 2006, p. 37.

<sup>48</sup> Riga Summit Reader’s Guide, 2006, p. 37 & NATO’s Response to the Threats Posed by Weapons of Mass Destruction factsheet, 2018, p. 1.

between the UN and NATO<sup>49</sup>. The summit also touched upon the issue of CBRN threats, stating that the Alliance is committed to developing capabilities and a comprehensive policy to counter this threat<sup>50</sup>. This has resulted in the creation of NATO's comprehensive policy in 2009 which will be discussed in the next section.

### 3.2.10 NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats

Signed in 2009, NATO's Comprehensive Policy aims to prevent the proliferation of WMDs and CBRN weapons, as well as prepare the recovery efforts if a WMD attack or CBRN incident occurs. The Policy states certain threats that are of particular importance, such as "non-adherence to international arms control, disarmament and non-proliferation commitments, and programmes to develop WMD and their means of delivery..." and "nuclear weapons and radiological and chemical agents that remain in the world could be vulnerable to exploitation if not properly secured. Rapid advances in biological science and technology continue to increase the bio-terrorism threat and there are indications that terrorists intend to acquire chemical, biological, radiological and nuclear (CBRN) materials for malicious purposes"<sup>51</sup>. The Policy presents certain solutions, such as compliance with the Nuclear Non-Proliferation Treaty (NPT), Chemical Weapons Convention (CWC), and Biological and Toxin Weapons Conventions (BWC), consultations, information and intelligence sharing, and disarmament, to counter these threats<sup>52</sup>. NATO places particular emphasis on cooperation with international organisations such as the UN, the EU, and other organisations dealing with WMD proliferation in Article 31 of this document<sup>53</sup>. A specific example of information sharing with the World Health Organisation (WHO) is mentioned, as information sharing with the WHO "could enable the Alliance to better monitor and identify anomalies in global health trends, leading to earlier detection of and improved response to biological threats"<sup>54</sup>. The Comprehensive Policy shows that the UN is a crucial partner for NATO in the area of CBRN threat management.

### 3.2.11 NATO Strategic Concept

Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization, approved in 2010, outlines the core tasks and commitments of the Alliance. The three essential core tasks of NATO remain collective defence, crisis management, and cooperative security. However, the focus of NATO is shifting more towards "crisis management", stating that the Alliance commits itself to "prevent crises, manage conflicts and stabilize post-conflict situations"<sup>55</sup>. To achieve these tasks, NATO emphasizes the cooperation between international partners. The UN is one of those critical partners as NATO seeks to strengthen its cooperation with this organisation. This is done through three main objectives<sup>56</sup>:

- "Enhance liaison between the two Headquarters
- more regular political consultation
- enhanced practical cooperation in managing crises where both organizations are engaged"

<sup>49</sup> Bucharest Summit Declaration, 2008, Art. 4.

<sup>50</sup> Bucharest Summit Declaration, 2008, Art. 45.

<sup>51</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 1.

<sup>52</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of WMD and Defending against CBRN Threats, 2009, Art. 6, 7, & 8.

<sup>53</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of WMD and Defending against CBRN Threats, 2009, Art. 31.

<sup>54</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of WMD and Defending against CBRN Threats, 2009, Art. 31.

<sup>55</sup> NATO Strategic Concept, 2010, p. 4.

<sup>56</sup> NATO Strategic Concept, 2010, p. 27.

### 3.2.12 Non-Binding Guidelines for Enhanced Civil-Military Cooperation to Deal with the Consequences of Large-Scale CBRN Events Associated with Terrorist Attacks

The Guidelines, issued in 2019, provide best practices on how to handle terrorist CBRN attacks. Guidelines on planning, logistics, medical aid, public awareness and warning information systems, notifications and emerging communications, and training and exercise in the context of terrorist CBRN attacks can be found in this document<sup>57</sup>.

## 3.3 UN documents

### 3.3.1 UN Charter

The UN Charter was signed, and came into force, in 1945<sup>58</sup>. The UN Charter is considered an international treaty and is therefore a document on international law that deals with many different issues, ranging from the operations of the UN and international justice to acts of international aggression<sup>59</sup>. An important article in the realm of self-defence is Article 51 which states that the UN Member States have the right to individual or collective defence, in case of a military attack<sup>60</sup>. The Charter also deals with alliances in Chapter VIII: Regional Arrangement. In this Chapter, the UN specifies that regional arrangements cannot take enforcement actions without the authorization of the Security Council, with the exception of pacific settlement efforts<sup>61</sup>. It should be noted that self-defence is not an enforcement action, which means that Article 51 and Article 53.1 do not contradict each other. Furthermore, it is stated in Article 54 that regional arrangements should inform the Security Council of its activities “at all times... for the maintenance of international peace and security”<sup>62</sup>. Although Chapter VIII deals with alliances, it should be highlighted that NATO does not consider itself a Chapter VIII organisation.

### 3.3.2 Draft Convention on Expediting the Delivery of Emergency Assistance

The non-binding Draft Convention of 1984 aims to increase cooperation by providing guidelines on how the stricken state and external parties should act if a state requests aid during a disaster. The Convention discusses topics such as assistance (Art. 5), exchange of information (Art. 6), protection and facilities for relief personnel (Art. 7), communications (Art. 8), modifications of relief plans (Art. 9), qualitative nature of assistance (Art. 10), packing, labelling and marking (Art. 11), identification (Art. 12), exportation (Art. 13), importation (Art. 14), financial provisions (Art. 15), accounting (Art. 16), irregularities (Art. 17), and termination of assistance (Art. 18) as well as additional remarks such as the guiding principles<sup>63</sup>. However, the Draft Convention was never taken up by the UN General Assembly which means that a treaty failed to be concluded<sup>64</sup>. The reason for the rejection was the opposition to it in the UN by “various non-governmental organisations (NGOs) and both the League of Red Cross Societies and the ICRC, which criticized the emphasis placed on the sovereignty of receiving States, and on the other side of other States,

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<sup>57</sup> Non-Binding Guidelines for Enhanced Civil-Military Cooperation to Deal with the Consequences of Large-Scale CBRN Events Associated with Terrorist Attacks, n.d.

<sup>58</sup> UN Charter, 1945.

<sup>59</sup> UN Charter, 1945.

<sup>60</sup> UN Charter, 1945, Art. 51.

<sup>61</sup> UN Charter, 1945, Art. 53.1.

<sup>62</sup> UN Charter, 1945, Art. 54.

<sup>63</sup> Draft Convention on expediting the delivery of emergency assistance, 1984.

<sup>64</sup> Sivakumaran S. *Techniques in International Law-Making: Extrapolation, Analogy, Form and the Emergence of an International Law of Disaster Relief*, 2017 & Fisher D. *Law and legal issues in international disaster response: a desk study Summary version*, 2007, p. 6.

which instead deemed the exercise premature for the time<sup>65</sup>. This convention serves as an example that approval of international legal documents in the UN is a difficult and complicated process.

### 3.3.3 Framework Convention on Civil Defence Assistance

The aim of the Convention is to achieve two key objectives for State parties, which are<sup>66</sup>:

- a) "promoting co-operation between Civil Defence Services, as defined under Article 4, particularly with regard to training of personnel and exchange of information and expertise;
- b) reducing obstacles to assistance and particularly delays in intervention."

Furthermore, the Convention lays out the principles under which the external parties would cooperate and states how the cooperation shall take place in "the areas of prevention, forecasting, preparation, intervention and post-crisis management"<sup>67</sup>.

### 3.3.4 Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies

This document, which was written in 2003 and revised in 2006, provides guidelines for international military and civilian personnel who, under the umbrella of a UN humanitarian mission, are sent into complex emergencies. A complex emergency is defined as "a humanitarian crisis in a country, region, or society where there is a total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing UN country programme"<sup>68</sup>. The document emphasizes the fact that UN Military and Civil Defence Assets (MCDA) should be used as a last resort and with extreme carefulness, as inappropriate use of MCDA can compromise neutrality which would lead to MCDA personnel becoming potential targets<sup>69</sup>. When a request for UN MCDA has been made, certain questions must be answered before the use of MCDA can be approved<sup>70</sup>:

- Are they the option of last resort, indispensable and appropriate?
- Are the countries offering MCDA also parties to the conflict?
- Based on the need, is a military or civil defence unit capable of the task?
- How long will they be needed?
- Can they be deployed without weapons or additional security forces?
- How will this association impact the security of UN personnel and other humanitarian workers?
- How will this impact the perceptions of UN neutrality and/or impartiality?
- What control and coordination arrangements are necessary?
- How and when will transition back to civilian responsibility be achieved?

<sup>65</sup> Giustiniani, Z. F. *International Law in Disaster Scenarios: Applicable Rules and Principles*, 2021, p. 4. & ICRC refers to the International Committee of the Red Cross

<sup>66</sup> Framework Convention on Civil Defence Assistance, 2000, Art. 2.

<sup>67</sup> Framework Convention on Civil Defence Assistance, 2000, Art. 4.

<sup>68</sup> Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies, 2006, p. 3.

<sup>69</sup> Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies, 2006, p. 10.

<sup>70</sup> Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies, 2006, p. 11.

- What are the consequences for the beneficiaries, other humanitarian actors, and humanitarian operations in the mid to long-term?

The guidelines specify the process of requesting MCDA and how to use these assets. It is further emphasized that the MCDA must be under civilian control.

### 3.3.5 Oslo Guidelines

The Guidelines on 'The Use of Foreign Military and Civil Defence Assets in Disaster Relief', also known as the Oslo Guidelines, were written in 1994 and revised in 2007<sup>71</sup>. They were written through a collaborative effort from 45 nations and 25 organisations including several UN bodies and NATO<sup>72</sup>. The non-binding Guidelines describe the way how to use MCDA during peacetime crisis situations resulting from natural, technological, and environmental emergencies<sup>73</sup>. The mechanisms of asking for international aid are also laid out. The document stresses the point that the MCDA should remain under civilian control to make the aid as neutral and impartial as possible<sup>74</sup>. The MCDA are comprised of "relief personnel, equipment, supplies and services..."<sup>75</sup>. UNOCHA has the primary responsibility to mobilize the MCDA and for the civil-military cooperation during disasters<sup>76</sup>. The document itself contains a template for an MCDA request as well as the Model Agreement Covering the Status of MCDA. These guidelines are specifically created for utilization in peacetime.

### 3.3.6 Sendai Framework

The Sendai Framework for Disaster Risk Reduction 2015 – 2030 is a UN document that provides guidelines that nations can adopt to reduce disaster risk. The aim of the document is to "Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience"<sup>77</sup>. For this, new crisis management strategies have been developed based on previous experiences with disasters. International, regional, subregional, and transboundary cooperation are mentioned as a crucial factor in crisis management<sup>78</sup>. It is therefore recommended to increase the coherence and standardization in the domains of policies, institutions, goals, indicators, and measurement systems<sup>79</sup>. Climate change is high on the priority list when it comes to preventing crises. The Framework can be applied to natural and man-made disasters. Thus, although CBRN disasters are not directly mentioned, they can be considered part of the broader area of man-made disasters.

There are four priority areas that should be focused on when discussing crisis risk management<sup>80</sup>:

1. "Understanding disaster risk
2. Strengthening disaster risk governance to manage disaster risk

<sup>71</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 3.

<sup>72</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 3.

<sup>73</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 9.

<sup>74</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 15.

<sup>75</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 7.

<sup>76</sup> Oslo Guidelines on The Use of Foreign Military and Civil Defence, 2007, p. 22.

<sup>77</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 12.

<sup>78</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 10.

<sup>79</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 11.

<sup>80</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 14.

3. Investing in disaster risk reduction for resilience
4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction”

This is all done while respecting the national autonomy of the crisis-stricken nation.

Lastly, the Framework considers the risk of “small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by natural or man-made hazards, as well as related environmental, technological and biological hazards and risks”<sup>81</sup>.

### 3.3.7 Draft Articles on the Protection of Persons in the Event of Disasters

The document provides articles that outline an “adequate and effective response to disasters”<sup>82</sup>. The document contains 18 Articles and includes topics such as human rights, duty to cooperate, the roles of affected states and the external parties, and the termination of external assistance. Article 13 emphasizes the consent of the affected state for external assistance and Article 14 emphasizes the right of the stricken state to set conditions for international aid and the need to indicate the “scope and type of assistance sought”<sup>83</sup>. In the context of a CBRN disaster, Article 14 is crucial as it calls for the state to outline which CBRN defence capabilities are required from the external assistance organisations.

### 3.3.8 INSARAG Guidelines

The International Search and Rescue Advisory Group (INSARAG) guidelines provide instructions to nations on how to deal with a sudden disaster. The guidelines also include instructions pertaining to the use of Urban Search and Rescue (USAR) teams and the role of the UN in crisis management<sup>84</sup>. The INSARAG Guidelines are comprised of three parts: Volume I: Policy, Volume II: Preparedness and Response, Volume III: Operational Field Guide<sup>85</sup>. The document outlines the key components that all USAR teams should be able to provide while on a mission, namely, management, search, rescue, medical, and logistical help<sup>86</sup>. Furthermore, regarding their capabilities, simultaneously and manpower, the USAR teams are split into three groups, namely light/medium/heavy. Specific tasks of the USAR teams can be found in Annex 2.

To create coordination at the disaster site, an On-Site Operations Coordination Centre (OSOCC) can be established by an UNDAC team to support the Local Emergency Management Agency (LEMA)<sup>87</sup>. OSOCC coordinates the operations of international responders and supports the coordination of aid that deals with health, water, sanitation, and shelter<sup>88</sup>. OSOCC has two main objectives<sup>89</sup>:

- “To rapidly provide a means to facilitate on-site cooperation, coordination and information management between international responders and the government of the affected country in the absence of an alternate coordination system”

<sup>81</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 11.

<sup>82</sup> Draft Articles on the Protection of Persons in the Event of Disasters, 2016, p. 2.

<sup>83</sup> Draft Articles on the Protection of Persons in the Event of Disasters, 2016, p. 4.

<sup>84</sup> INSARAG Guidelines, 2020.

<sup>85</sup> INSARAG I Guidelines, 2020, p. 5.

<sup>86</sup> INSARAG I Guidelines, 2020, p. 28.

<sup>87</sup> INSARAG I Guidelines, 2020, p. 27.

<sup>88</sup> INSARAG I Guidelines, 2020, p. 27.

<sup>89</sup> INSARAG I Guidelines, 2020, p. 27.



- “To establish a physical space to act as a single point of service for incoming response teams, notably in the case of a sudden-onset disaster where the coordination of many international response teams is critical to ensure optimal rescue efforts”

OSOCC also exists as an internet platform (virtual OSOCC) that is managed by the Activation and Coordination Support Unit<sup>90</sup>. The objective of the virtual OSOCC is to facilitate information through long distances between the OSOCC on the ground and the other involved parties. The virtual OSOCC is part of the Global Disaster Alert and Coordination System (GDACS) which improves cooperation through the centralization of disaster information systems and disaster managers worldwide<sup>91</sup>. The GDACS provides worldwide crisis information in real-time for the involved parties to see the progress of the crisis and what the involved parties need<sup>92</sup>.

All the operations that the USAR teams conduct must be in line with the objectives of the LEMA as it is the nation that holds ultimate responsibility for the crisis response<sup>93</sup>. The document is internationally accepted as a standard for USAR teams<sup>94</sup>.

## 4 NATO-UN cooperation history

During the Cold War, the cooperation between NATO and the UN was virtually non-existent<sup>95</sup>. NATO was regarded as a threat to international security and peace due to its participation in the arms race, in the view of the UN<sup>96</sup>. On the other hand, NATO’s view of the UN was that it was politically and militarily irrelevant due to a lack of military strength and its political internal deadlock<sup>97</sup>. This deadlock existed due to the fact that the two prominent UN Member States, the USA and the Soviet Union, vetoed each other’s propositions in order to protect their interests. This could be seen by the fact that between 1946 and 1965 the Soviet Union used its veto power 106 times while between 1966 and 1989 the USA used its veto power 67 times<sup>98</sup>. The vetoes were used for various kinds of propositions, including the admission of new members. An example of this is the use of the veto by the Soviet Union to prevent Kuwait from joining the United Nations<sup>99</sup>. However, after the Cold War in the early ‘90s, NATO and the UN began cooperating in different theatres for international peace and security. The cooperation included situations of armed conflict, as well as crisis management operations in theatres such as Bosnia, Kosovo, Afghanistan, Pakistan, Somalia, and the recent coronavirus disease (COVID-19) pandemic.

### 4.1 Bosnia

NATO and the UN began cooperating in Bosnia in 1992 in order to stop the Serb aggression<sup>100</sup>. Initially on the sea, NATO and UN cooperated in operations Maritime Monitor, Maritime Guard, and Sharp Guard to monitor the UN embargo of arms against former Yugoslavia<sup>101</sup>. However, most smuggling traffic took place over land, which resulted in only six ships being caught trying to break the blockade between 1993 and

<sup>90</sup> UNOCHA. On-Site Operations Coordination Centre (OSOCC), n.d.

<sup>91</sup> Virtual OSOCC Handbook and guidance Volume I: User manual, 2014, p. 5.

<sup>92</sup> Virtual OSOCC Handbook and guidance Volume I: User manual, 2014, p. 5.

<sup>93</sup> INSARAG I Guidelines, 2020, p. 22 & UN Resolution 57/150, 2003.

<sup>94</sup> INSARAG I Guidelines, 2020, p. 7.

<sup>95</sup> Harsch, M. F., & Varwick, J. NATO-UN Cooperation Revisited: A New Dawn?, 2009, p. 30.

<sup>96</sup> Harsch, M. F., & Varwick, J. NATO-UN Cooperation Revisited: A New Dawn?, 2009, p. 30 & Boothby M. G. IPA Seminar on UN/NATO Relationship “Cooperation between the UN and NATO: Quo Vadis?”, 1999, p. 1.

<sup>97</sup> Harsch, M. F., & Varwick, J. NATO-UN Cooperation Revisited: A New Dawn?, 2009, p. 30.

<sup>98</sup> Van Oudenaren, J., Effectiveness and Ineffectiveness of the UN Security Council in the Last Twenty Years: A US Perspective, 2009, p. 3.

<sup>99</sup> S/5006, 1961.

<sup>100</sup> Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, p. 141.

<sup>101</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 40.

1996<sup>102</sup>. On land, the UN has set up the United Nations Protection Force (UNPROFOR) with the mission to protect civilians and enforce an arms embargo, its headquarters were located in Sarajevo<sup>103</sup>. The mission of the UNPROFOR was expanded to the protection of “safe areas” in 1993, as the UN headquarters had been bombarded by Bosnian Serb artillery<sup>104</sup>. Resolutions 781 and 786 were mandated by the Security Council which established a “no-fly zone” in Bosnia and Herzegovina. This no-fly zone was monitored by NATO’s early warning aircraft. This led to UN officials being present in NATO headquarters, and NATO officers being present in UN headquarters to exchange information<sup>105</sup>. However, the communication was often problematic as NATO member countries were afraid that exchanging information with the UNPROFOR might lead to sensitive information being obtained by non-NATO nations<sup>106</sup>. Additional information on this conflict is available in Annex 3.

#### 4.2 Kosovo refugee crisis

The prelude to the Kosovo refugee crisis can be found in Annex 4. In 1998, after the establishment of the EADRCC, the UN High Commissioner for Refugees (UNHCR) requested assistance in dealing with the Albanian refugee crisis that was a consequence of the Serbian programme of forced expulsion<sup>107</sup>. Thousands of Kosovar refugees fled Kosovo to find shelter in neighbouring Albania. The EADRCC has arranged 16 flights with 165 tons of relief aid<sup>108</sup>. After the crisis has passed, the Center held continuous contact with the UNHCR and enhanced contact with other equivalents of UNHCR in different countries<sup>109</sup>.

#### 4.3 Afghanistan

After the September 11 attacks on the World Trade Center and the Pentagon, the response of the UN and NATO was unified<sup>110</sup>. NATO triggered Article 5 while the UN labelled the attacks as “a threat to international peace”<sup>111</sup>. The Article 5 response was justified under Article 51 of the UN Charter, which emphasizes the fact that a country, or a collective of countries, may employ self-defence if a Member State of the UN is attacked<sup>112</sup>. However, one of the criteria for defence is to report the measures which will be used for defence to the Security Council, which did not happen in 2001<sup>113</sup>. The UN’s responded to the attack through Resolution 1368, which denounced Al Qaeda and called all states to “work together to bring to justice the perpetrators, organizers, and sponsors”<sup>114</sup>. The UN also created a counter-terrorism committee which NATO fully endorsed<sup>115</sup>. Although NATO was not an official partner to the operations in 2001, Kaplan states that the United States “in essence spoke for the allies”, and its good relations with the UN translated to good relations with NATO<sup>116</sup>. Coordination between the US and the UN was strong, as evidenced by the Security Council’s Resolution 1386, which authorized the creation of the International Security Assistance Force (ISAF)<sup>117</sup>. In 2003 NATO assumed command over the ISAF<sup>118</sup>. The UN Security

<sup>102</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 40.

<sup>103</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 140.

<sup>104</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 141.

<sup>105</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 41.

<sup>106</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 41.

<sup>107</sup> *NATO’s Role in Disaster Assistance*, 2001, p. 25.

<sup>108</sup> *NATO’s Role in Disaster Assistance*, 2001, p. 25.

<sup>109</sup> *NATO’s Role in Disaster Assistance*, 2001, p. 25.

<sup>110</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, pp. 187 & 188.

<sup>111</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 188.

<sup>112</sup> UN Charter, 1945, Art. 51 & Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 188.

<sup>113</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 188.

<sup>114</sup> UN Resolution 1368, 2001, cited in Kaplan, 2010, pp. 188 & 189.

<sup>115</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 189.

<sup>116</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 191.

<sup>117</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 191.

<sup>118</sup> Oertel, J. *The United Nations and NATO*, 2008, p. 5.

Council gave the authorization to expand the presence of the ISAF outside Kabul and its environments<sup>119</sup>. Further information on the NATO-UN cooperation and encountered challenges in this operation can be found in Annex 5.

#### 4.4 Pakistan

In 2005, a devastating 7.6 magnitude earthquake has struck Pakistan that led to 73.000 casualties and the displacement of 3.5 million people<sup>120</sup>. During this crisis, NATO and the UN worked extensively together in relief missions<sup>121</sup>. Pakistan and the UNHCR both requested assistance from NATO<sup>122</sup>. As the earthquake area was located in the mountainous Kashmir region, NATO used its airlift capabilities to supply 3.500 tons of aid material<sup>123</sup>. Furthermore, NATO provided assistance in the form of medical units, engineers, and specialist equipment<sup>124</sup>. This is due to the fact that the UN did not have the logistical capacity for this operation, which is why the UN requested help from NATO<sup>125</sup>. This was done using the NRF<sup>126</sup>. The operation ended in 2006 with all the aid successfully delivered, 8000 patients treated, roads, shelters, and schools built, and 7600 people relocated<sup>127</sup>.

#### 4.5 Somalia

NATO and the UN have also collaborated in Somalia<sup>128</sup>. In 2008 the UN Secretary General has formally requested NATO for assistance in escorting World Food Program (WFP) cargo ships from Somalian pirates<sup>129</sup>.

#### 4.6 Cooperation in CBRN defence

When it comes to cooperation in the area of CBRN defence, cooperation is limited. NATO focuses on CBRN threats from all aspects, including crisis management and terrorism which can be seen through the creation of various NATO bodies. The CJ-CBRND-TF serves as an example<sup>130</sup>. The UN mostly focuses on terrorism and the CBRN defence capabilities of terrorists and the proliferation of CBRN weapons. This can be concluded from various UN Security Council Resolutions (UNSCR), such as Resolutions 1373, 1540, and 2325, that deal with CBRN weapons and terrorism. However, the UN also considers biological disasters, be it natural or man-made<sup>131</sup>. Some cooperation does exist on CBRN threats. NATO and the UN have launched a project to strengthen the country of Jordan in its CBRN defence<sup>132</sup>. The project enhanced the capabilities to “prepare for and respond to a terrorist attack in Jordan featuring the use of Chemical, Biological, Radiological, and Nuclear (CBRN) weapons”<sup>133</sup>.

In 2016, Jordan, through the framework of the Mediterranean Dialogue Initiative, has requested NATO’s support to assess its national preparedness in the area of CBRN defence. Jordan is viewed as a key partner

<sup>119</sup> Berdal, M. A Mission Too Far? NATO and Afghanistan, 2001-2014, 2016, p. 163.

<sup>120</sup> Sudmeier-Rieux, K., Jaboyedoff, M., Breguet, A., & Dubois, J. The 2005 Pakistan Earthquake Revisited: Methods for Integrated Landslide Assessment, 2011, p. 112.

<sup>121</sup> Harsch, M. F., & Varwick, J. NATO-UN Cooperation Revisited: A New Dawn?, 2009, pp. 30 & 31.

<sup>122</sup> Oertel, J. The United Nations and NATO, 2008, pp. 5 & 6.

<sup>123</sup> Oertel, J. The United Nations and NATO, 2008, p. 5.

<sup>124</sup> Oertel, J. The United Nations and NATO, 2008, p. 5.

<sup>125</sup> Reis, F. A. dos. Military Logistics in Natural Disasters: The Use of the NATO Response Force in Assistance to the Pakistan Earthquake Relief Efforts, 2018, p. 74.

<sup>126</sup> Weijers B. NATO Disaster Relief Operations: an analysis of an underexposed field of activity of the Alliance, 2015, p. 54.

<sup>127</sup> NATO responds to Pakistani request for relief assistance, 2010.

<sup>128</sup> Harsch, M. F., & Varwick, J. NATO-UN Cooperation Revisited: A New Dawn?, 2009, p. 30.

<sup>129</sup> Relations with the United Nations, 2021.

<sup>130</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 18.

<sup>131</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 11.

<sup>132</sup> NATO and United Nations working together to strengthen Jordan’s security and defence capacity against terrorist threats, 2019.

<sup>133</sup> NATO and United Nations working together to strengthen Jordan’s security and defence capacity against terrorist threats, 2019.

in the Middle East, which is why NATO has been involved there<sup>134</sup>. This is due to the fact that Jordan is seen as a stable country and desires to expand its nuclear industry<sup>135</sup>. NATO has sent an Civil Preparedness Advisory Support Team with the aim to perform a gap analysis. Three main challenges were identified, mainly the need to improve procedures in the area of continuity of government, the need to improve standard operating procedures in the field of crisis management, and the need to improve CBRN defence capabilities and plans. The first two shortfalls were addressed in the NATO Defence Capacity Building Trust Fund Project on “Enhancing Jordan’s capacity for Crisis Management, Continuity of Government and Exercises”, established in February 2018. For the third shortfall, NATO International Staff partnered with the UN Office of Counter-Terrorism (UNOCT), which resulted in the establishment of a three year UN-NATO DCB Trust Fund Project on ‘Enhancing Jordan’s capability to prepare and respond to CBRN attacks’. This cooperation was officially recognized through a Memorandum of Understanding (MOU), which was signed in New York in March 2019. The project intends to improve Jordan’s CBRN defence in three ways:

- “1. increased awareness of capability gaps in CBRN resilience, including preparedness for and response to a CBRN attack.
2. greater knowledge and understanding of theoretical and practical aspects of responding to a CBRN attack
3. improved capacity, through exercises, to address existing gaps in the area of preparedness and response to a CBRN attack.”

Regular meetings have been taking place every two months between NATO, the UN, and the representatives of Jordan on the progress of the project. Furthermore, the nations who have donated funds for the execution of this project were regularly updated on the progress of the project; at least once in six months. The project was initially supposed to last three years. The first two years were led by the UN, while the last year will include a CBRN defence virtual exercise led by NATO. Due to the COVID-19 pandemic, the project had to be extended to 2022. Further information on this topic can be found in annexes 20 and 21. The JCBRN Defence COE is also involved in this project as it will provide CBRN training to Jordanian agencies, including the Jordanian Armed Forces, that are involved in this project. The training aims to familiarize the participants with the International CBRN Training Curriculum for Trainers of First Responders, developed by NATO’s Civil Protection Group.

The first ever UN-NATO Project is seen as a major success in NATO-UN cooperation. The UN is keen to offer similar joint projects to other UN nations and NATO Partners in the Middle East. However, it has been assessed that more funding and resources would be required for NATO to engage effectively in future projects. The JCBRN Defence COE, with its expertise on CBRN issues, could also potentially be involved in future projects.

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<sup>134</sup> Annex 21.

<sup>135</sup> Annex 21.

## 5 NATO crisis management

### 5.1 NATO Disaster relief

NATO uses disaster relief as “organized response to render assistance to those affected by a disaster. It requires rapid reaction, and often includes services and transportation, rescue and evacuation of victims, the provision of food, clothing, medicine and medical services, temporary shelter, technical assistance, and repairs to essential services”<sup>136</sup>. Initially, a nation that has been stricken by a disaster is responsible for crisis management; however, if the stricken nation is not able to cope with the disaster, international assistance may be called upon<sup>137</sup>. The Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization provides justification for such international assistance as point 4b. entails that crisis management is one of the three essential core tasks of the Alliance, the other two being collective defence (4a.) and cooperative security (4c.)<sup>138</sup>. If the crisis overwhelms the stricken nation, NATO can be requested to assist with, for example, the distribution of supplies<sup>139</sup>. Furthermore, the military support that NATO can provide immediately in case of a disaster relief endeavor includes any or all of the following<sup>140</sup>:

- (1) The activation of the Bi-Strategic Command Logistics Co-ordination Centre in order to provide advice and assistance on the provision of NATO-owned or controlled military assets and capabilities.
- (2) The involvement of the Allied Movements Coordination Centre (AMCC) to provide advice and assistance on the coordination of national military lift capabilities.
- (3) Consideration of provision of storage capacity, complete with material handling equipment, in suitable NATO infrastructure facilities (in accordance with established Infrastructure Committee procedures).
- (4) The provision of staff assistance to cluster leads and other non-NATO organizations in their planning processes.

For NATO to participate in a disaster relief operation, NATO, a Partner, a disaster-stricken nation, or a relevant international organisation should request assistance from NATO. This is also valid in disaster cases outside of NATO’s boundaries<sup>141</sup>. It should be noted that all Allies and Partner Nations and the UN can request assistance directly from the EADRCC; however, all other nations’ and international organisations’ requests must be approved by the North Atlantic Council (NAC)<sup>142</sup>. Furthermore, there is a distinction between NATO support and NATO Member support. A NATO Member can offer support bilaterally to another nation without the involvement of the NATO framework, while NATO support refers to the situation where NATO as an organisation requests capabilities from its member countries to provide support to a disaster-stricken nation. The NATO organisation that handles such support efforts and requests, and coordinates them with external parties, is the EADRCC.

<sup>136</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-1.

<sup>137</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-1.

<sup>138</sup> The Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization, 2010, pp. 7 & 8.

<sup>139</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-1.

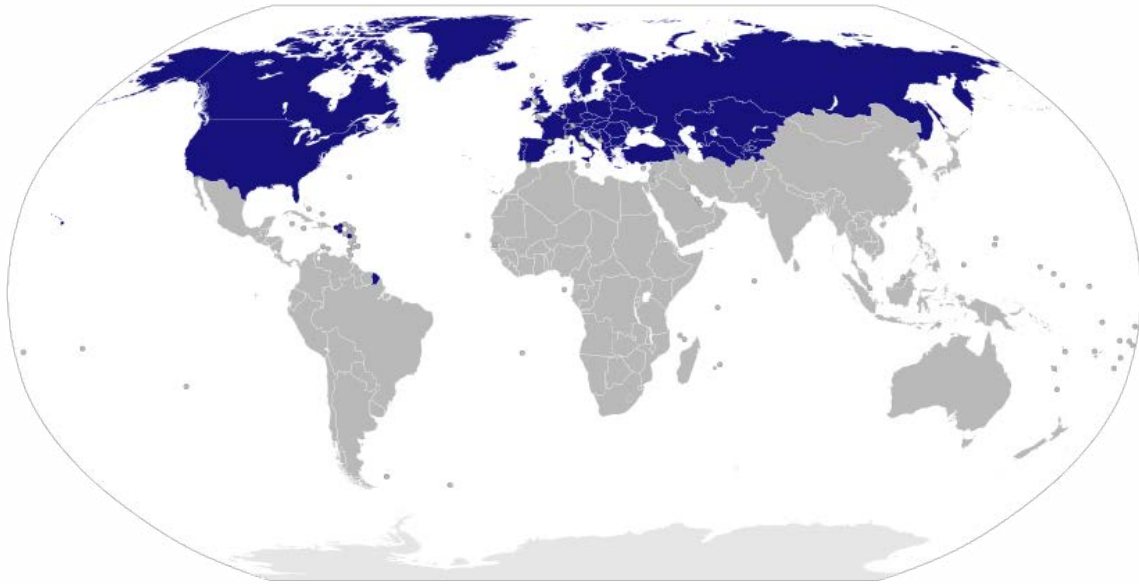
<sup>140</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-1.

<sup>141</sup> NATO Logistics Handbook, 1997, Chapter 11: Civil Emergency Planning, Art. 1124a.

<sup>142</sup> Annex 15.

### 5.1.1 Euro-Atlantic Disaster Response Coordinator Center (EADRCC)

Established in 1998, the EADRCC is a crucial organisation for the disaster relief efforts of NATO as it is the main civil emergency response mechanism in the geographical area of the EAPC, which constitutes 30 NATO Allies and 20 partner countries<sup>143</sup>. However, although the EADRCC has been primarily established for disaster relief coordination efforts in the EAPC area, it should be highlighted that the EADRCC cooperates with all NATO Allies, also outside the bound of the EAPC<sup>144</sup>.



*Figure 1.* Euro-Atlantic Partnership Council (EAPC) member countries. Retrieved from [https://en.wikipedia.org/wiki/Euro-Atlantic\\_Partnership\\_Council](https://en.wikipedia.org/wiki/Euro-Atlantic_Partnership_Council)

The main functions of the EADRCC can be separated into 4 sections<sup>145</sup>:

- Disaster response coordination
- Disaster assessment
- Activation of the EADRU
- Day to day function of the EADRCC

An element of the EADRCC is the EADRU which is a non-standing unit comprised of multi-national personnel of national civil and military elements voluntarily provided by EAPC member countries<sup>146</sup>.

<sup>143</sup> Euro-Atlantic Partnership Council, 2020. & Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-2.

<sup>144</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. A-1.

<sup>145</sup> Standing Operating Procedures for the Euro-Atlantic Disaster Response Coordination Centre (EADRCC), 2001, Art. 13.

<sup>146</sup> Standing Operating Procedures for the Euro-Atlantic Disaster Response Unit (EADRU), 2007, Art. 2.1.

If a stricken nation or UNOCHA request aid from the EARDCC, the EARDCC will be responsible for<sup>147</sup>:

- Informing the Secretary General and, through him, the Euro-Atlantic Partnership Council for political guidance as appropriate, as well as the Senior Civil Emergency Planning Committee (SCEPC) in EAPC format and NATO Military Authorities (NMAs), of such requests for disaster assistance. In addition, the Secretary General will be informed of any special political and operational implications.
- Coordinating, in close consultation with the UNOCHA, the response of EAPC Countries to a disaster occurring within the EAPC geographical area.
- Acting as the focal point for information-sharing on disaster assistance requests among EAPC member countries.
- Maintaining close liaison with both UNOCHA and the European Union as well as other organisations involved in international disaster response.

NATO EARDCC works with a “clearing house system”. This mechanism entails that a stricken nation will first try to manage the crisis through its own capabilities; if those capabilities prove inadequate, the stricken nation is expected to seek help from its neighbours through bilateral agreements; if that also fails, the nation is expected to seek international assistance by requesting aid from the UN, and if needed from NATO<sup>148</sup>. UNOCHA and EADRCC then send a request to member countries for needed resources to counteract the disaster. Furthermore, the EARDCC continues to gather information on the disaster and reports regularly on the situation, primarily to UNOCHA<sup>149</sup>. An example of this system can be observed in figure 2.

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<sup>147</sup> Standing Operating Procedures for the Euro-Atlantic Disaster Response Coordination Centre (EADRCC), 2001, Art. 12.

<sup>148</sup> Annex 15.

<sup>149</sup> NATO EADRCC Clearing House Mechanism, n.d. & Annex 15.

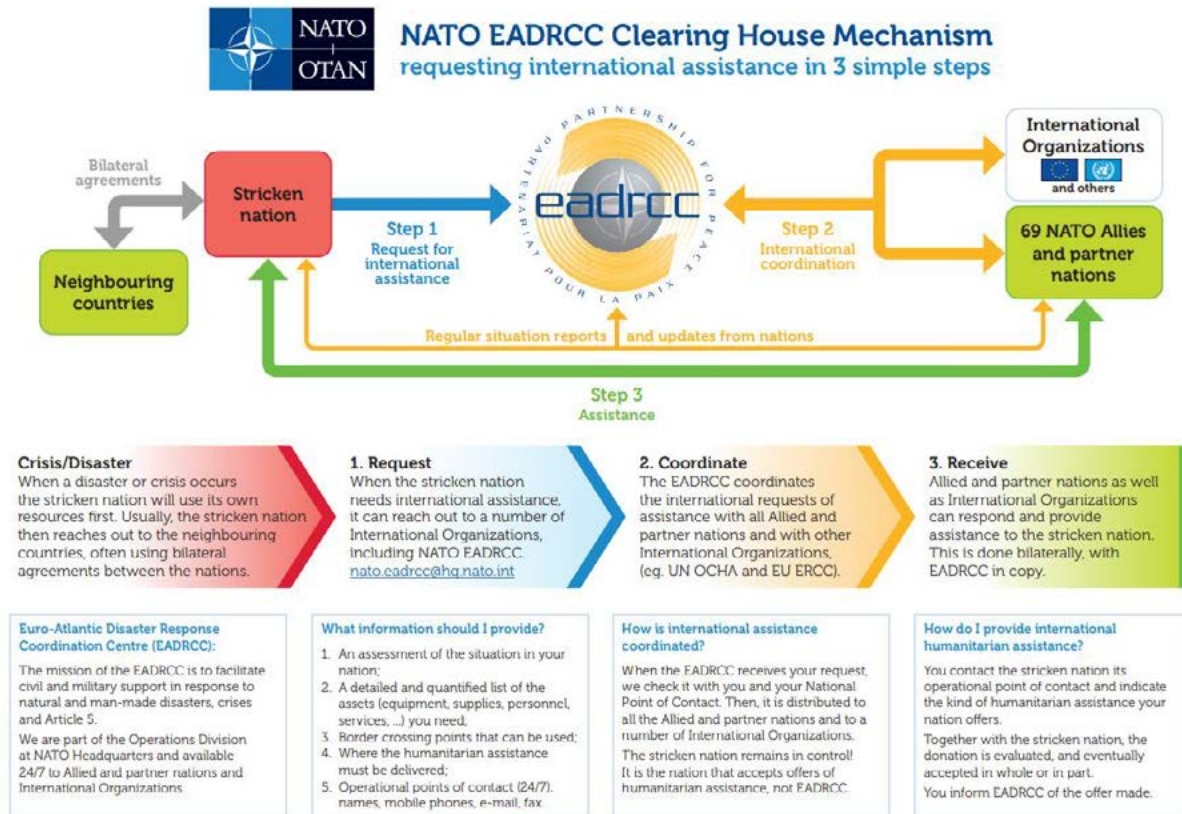


Figure 2. The EADRCC Clearing House Mechanism. Retrieved from 200401-EADRCC-Requesting-assistance-in\_3.pdf (nato.int)

Since its inception, the EADRCC has been involved with 21 responses to disasters between 1998 and 2017. Most of these disasters are of natural origin. It is noteworthy that a significant number of these operations were performed outside of Europe, which shows that the EADRCC, and therefore NATO, has the capability to respond to disasters outside of its original field of operations. A list of the disaster where the EADRCC was involved can be found in Annex 6.

Furthermore, the EADRCC also organizes events such as workshops, tabletop exercises, seminars that deal with the response to emergencies, and large-scale exercises with realistic scenarios to train for potential disasters<sup>150</sup>. Although it is intended to perform these exercises on an annual basis, due to the COVID-19 pandemic this has been complicated and the exercises have been performed more irregularly<sup>151</sup>. 18 of such exercises can be found in Annex 7, although that list is not exhaustive.

In the last few years, the staff of the EADRCC has been gradually downscaled as NATO focused on other geopolitical challenges<sup>152</sup>.

<sup>150</sup> NATO's involvement in Humanitarian Operations/Disaster Response, 2017, p. 173 & Annex 15.

<sup>151</sup> Annex 15.

<sup>152</sup> de Maio, G. NATO's Response to COVID-19: Lessons for Resilience and Readiness, 2020, pp. 2 & 3.



## 5.2 NATO Consequence management

NATO defines consequence management as “Actions taken to maintain or restore essential services and to lessen the effects of natural or man-made disasters”<sup>153</sup>. In the Allied Joint Doctrine for the Military Contribution to Humanitarian Assistance, it is stated that “JFCs should understand that it is not their mission to rebuild the nation, but rather to contribute to the overall recovery by establishing and maintaining a secure and stable environment and to support the re-establishment of basic services. In the short term, quick-impact projects can be beneficial, but JFCs should ensure that such efforts support the comprehensive approach to the overall DR (Disaster Relief) operation”<sup>154</sup>. It is also stated that, if NATO assumes control over some civilian function, the responsibility must be returned into civilian hands as soon as it will be possible, but the transfer of responsibility should be well-coordinated as to not disrupt vital services and activities<sup>155</sup>.

Aside from the restoration of essential services, NATO emphasizes the need to protect critical infrastructure. NATO defines critical infrastructure as “those assets, facilities, networks and services which, if disrupted or destroyed, would have a serious impact on the health, safety, security, economic well-being or effective functioning of a nation”<sup>156</sup>. The protection of critical infrastructure ensures that the functionality, robustness, and reliability of those infrastructures are not compromised<sup>157</sup>.

### 5.2.1 Consequence management in the area of CBRN

Aside from standard consequence management procedures outlined in AJP-3.4.3, NATO emphasizes the threat of WMD and CBRN incidents. According to NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats the Alliance should be prepared to respond to WMD and CBRN incidents should the prevention of such incidents fail, this includes consequence management<sup>158</sup>. The US Army official documents, which have been found to be conceptually common with NATO, assert that “The primary goals of CBRN CM are to save lives; prevent injury; provide temporary critical life support; protect critical property, infrastructure, and the environment; restore essential operations; contain the event; and preserve national security”<sup>159</sup>.

NATO has several internal and external bodies which are concerned with the defence and consequence management of WMD and CBRN threats, these are: CJ-CBRND-TF, JCBRN Defence COE, the Defence Against Terrorism COE, and other COEs and agencies that support NATO’s response to the WMD threat<sup>160</sup>. An additional vital body to mention is The Arms Control, Disarmament, and WMD Non-proliferation Centre (ACDC) which deals with WMD and CBRN threats and non-proliferation. The reason why it is not mentioned in the Comprehensive, Strategic-Level Policy is that it has been renamed in 2017 after the Policy was adopted<sup>161</sup>. Furthermore, the AJP 3.4.3 mentions that “NATO’s Joint Health, Agriculture and Food Group has developed treatment protocols for casualties following a CBRN incident and the Alliance

<sup>153</sup> AAP-06, 2020, p. 31.

<sup>154</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-2. & JFC refers in this instance to Joint Force Commanders.

<sup>155</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-2.

<sup>156</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-3.

<sup>157</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-3.

<sup>158</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 4 & Art. 23.

<sup>159</sup> Multi-service tactics, 2015, as cited by Zahradníček et al. CBRN Consequence Management: New Approach and Possibilities of Participation of Chemical Units, 2016, p. 151.

<sup>160</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 18.

<sup>161</sup> NATO. Weapons of mass destruction, 2021.

has defined coordination mechanisms for medical evacuation capabilities and allocating and transporting victims to facilities in other countries” which means that NATO is prepared for potential negative consequences to civilians following a CBRN incident<sup>162</sup>. However, CBRN incident-stricken nations must be prepared to mitigate and manage the consequences of a CBRN incident as it is their primary sovereign responsibility to do so<sup>163</sup>. If a CBRN incident-stricken nation is overwhelmed with the disaster, NATO resources can be mobilized to aid such a nation upon request<sup>164</sup>. These resources are stated in the CBRN inventory. This inventory is a document where nations state the CBRN defence resources that they would voluntarily contribute if such a need would arise<sup>165</sup>. The inventory consists of 20 categories ranging from “decontamination, identification and decontamination teams through medical supplies, inland-water transport, field hospitals, hospitals, emergency, road transports” and more; however, the list excludes specific capabilities for nuclear incidents<sup>166</sup>.

When it comes to the effectiveness of the CBRN defence troops on the ground, Zahradníček, Otřísal, and Skaličan mention the required capabilities for the chemical core to be effective. These are command and control, assessment of CBRN environments, crisis planning, crisis communication, detection, identification and qualification, determination of hazard control zones, search rescue and extraction, handling with contaminants, decontamination, handling with human remains, protection against explosives, and logistics<sup>167</sup>.

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<sup>162</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, p. 2-6.

<sup>163</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 23.

<sup>164</sup> NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 23.

<sup>165</sup> Annex 15.

<sup>166</sup> Annex 15.

<sup>167</sup> Zahradníček et al. CBRN Consequence Management: New Approach and Possibilities of Participation of Chemical Units, 2016, p. 156 - 161.



Figure 3. Capability areas pertaining to CBRN consequence management framework. Retrieved from [https://www.researchgate.net/publication/306523142\\_CBRN\\_CONSEQUENCE\\_MANAGEMENT\\_NEW\\_APPROACH\\_AND\\_POSSIBILITIES\\_OF\\_PARTICIPATION\\_OF\\_CHEMICAL\\_UNITS](https://www.researchgate.net/publication/306523142_CBRN_CONSEQUENCE_MANAGEMENT_NEW_APPROACH_AND_POSSIBILITIES_OF_PARTICIPATION_OF_CHEMICAL_UNITS)

### 5.3 NATO Comprehensive approach

NATO comprehensive approach entails that political, civilian, and military stakeholder must combine their efforts to effectively manage modern crisis situations as the sole use of military forces is not sufficient anymore<sup>168</sup>. Lessons learned from operations in several theaters such as Kosovo or Afghanistan emphasized the fact that “coordination between a wide spectrum of actors from the international community became essential to achieve sustainable results”<sup>169</sup>. This concept was incorporated during the Riga Summit of 2006 in Article 10, which states that “today’s challenges require a comprehensive approach by the international community involving a wide spectrum of civil and military instruments, while fully respecting mandates and autonomy of decisions of all actors and provides precedents for this approach”<sup>170</sup>. Although the main idea behind a comprehensive approach has been laid out, CIMIC Handbook specifies that “Comprehensive approach can be understood as a concept, philosophy or mind-set rather than a documented process or capability. Therefore, it is also better to speak of “a” comprehensive approach instead of “the” comprehensive approach”<sup>171</sup>. This means that, although the main idea is to involve more actors, how to achieve that is entirely context-driven, as every crisis is

<sup>168</sup> CIMIC Handbook, 2020, par. 1.1.1.

<sup>169</sup> Major & Mölling. More Thank Wishful Thinking? The EU, UN, NATO and the Comprehensive Approach to Military Crisis Management, 2009, p. 26.

<sup>170</sup> Riga Summit Reader’s Guide, 2006, p. 8.

<sup>171</sup> CIMIC Handbook, 2020, par. 1.1.1.

different. Afghanistan serves as an example of the use of NATO's comprehensive approach. The comprehensive approach in Afghanistan, as well as its challenges, can be found in Annex 5.

### 5.3.1 Comprehensive approach in the area of CBRN defence

A comprehensive approach is also utilized in the area of CBRN threats as the approach calls for coordinated political, military, and civilian measures. As can be read in NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats "Planning for CBRN consequence management is a multi-dimensional effort, requiring coordination within the Alliance at all levels, as well as with civilian emergency planning authorities and other international organisations, as appropriate..."<sup>172</sup>. Furthermore, the document states that NATO will harmonize and coordinate military and non-military CBRN defence capabilities<sup>173</sup>. This means that NATO is putting emphasis on working with the international community such as the EU and the UN. Cooperation with the UN is important as it will enable NATO member countries to aid UN Member States in their fulfilment of UNSCR 1540, which disallows the support of non-state actors in the acquisition of CBRN weapons for terrorist purposes<sup>174</sup>. NATO can provide aid through military means or expertise through its relevant bodies.

## 6 UN crisis management

### 6.1 UN Disaster relief

Contrasted with NATO and its use of the term disaster relief, the UN's definition of disaster relief is "Goods and services provided to meet the immediate needs of disaster-affected communities"<sup>175</sup>. A disaster, or a humanitarian crisis, is defined by the UN as "an event or series of events that represents a critical threat to the health, safety, security, or well-being of a community or other large group of people usually over a wider area"<sup>176</sup>. The UN has gradually changed its position from disaster management to disaster risk management<sup>177</sup>. According to the United Nations International Strategy for Disaster Reduction (UNISDR) (today referred to as the United Nations Office for Disaster Risk Reduction (UNDRR)) the main goals of the UN are to increase the resilience of people, nations, and societies in order to increase the speed of recovery after a disaster and increase the prosperity in disaster-stricken nations through "successfully managing positive shocks that create opportunities for development"<sup>178</sup>. Thus, the UN, besides providing disaster relief, occupies itself with assessing and preventing crises in the first place. All dimensions of disaster risk should be researched for an effective disaster risk assessment before a disaster occurs, such as "vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment"<sup>179</sup>. This information is then used for increased effectiveness in preparedness and response to the disaster. The Sendai Framework provides examples of these operations. For example, creating community centers and stockpiling necessary materials in order to implement relief operations sooner<sup>180</sup>.

<sup>172</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 24.

<sup>173</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 24.

<sup>174</sup> NATO's Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 2009, Art. 31 & UN Resolution 1540, 2004.

<sup>175</sup> UNTerm, n.d.

<sup>176</sup> UNISDR, 2009, as cited by Jeong, B. G., & Yeo, J. United Nations and Crisis Management, 2017, p. 2.

<sup>177</sup> Jeong, B. G., & Yeo, J. United Nations and Crisis Management, 2017, p. 2.

<sup>178</sup> UNISDR, 2009, as cited by Jeong, B. G., & Yeo, J. United Nations and Crisis Management, 2017, p. 2.

<sup>179</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 14.

<sup>180</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 21.

However, the UN emphasizes the fact that it is the stricken nation itself that should be the first responder as it bears the responsibility for taking care of the victims of a disaster. This means that the main role of the stricken nations is to initiate, organize, coordinate, and implement humanitarian assistance within the nation's territory<sup>181</sup>. If the nation is not in a state to address the crisis effectively, it can appeal to the UN for humanitarian aid<sup>182</sup>. The first response to an emergency consists of an emergency relief phase within 10 days of a disaster<sup>183</sup>. The disaster relief may also include "logistical coordination, supervision, and facilitation of the activities and movement of disaster response personnel and equipment and the sharing and exchange of information pertaining to the disaster"<sup>184</sup>. The disaster response will take place at three levels: field, regional, and headquarters level<sup>185</sup>. The Humanitarian Coordinator on site will establish a Humanitarian Country Team, composed of relevant humanitarian organisations. This Team will lead the international humanitarian response<sup>186</sup>. Furthermore, the UN can send an UNDAC team within 48 hours anywhere in the world<sup>187</sup>. The UNDAC consists of disaster management professionals who focus on supporting the national government during a disaster through the establishment of an OSOCC to link international efforts with national relief, support the government coordinating structure, support assessment efforts, optimizing the use of available resources, support information management (information gathering and distribution), support safety and security management, and support UN-CMCoord<sup>188</sup>.

### 6.1.1 UN Office for Coordination of Humanitarian Affairs (UNOCHA).

The Office for Coordination of Humanitarian Affairs is the central point for emergency responses and humanitarian relief in the UN<sup>189</sup>. It is mandated by the UN General Assembly to coordinate, respond, and follow up on humanitarian action<sup>190</sup>. The main responsibility of UNOCHA is to effectively coordinate the disaster response efforts with all other relevant actors<sup>191</sup>. The UNOCHA has three core functions, namely<sup>192</sup>:

1. The coordination of humanitarian emergency response
2. Policy development and policy coordination
3. Advocacy for humanitarian issues

The coordination of humanitarian emergency response is facilitated by a Resident or Humanitarian Coordinators, who set up and lead the UN Country Teams. The head of UNOCHA has a dual role as an Under Secretary General for Human Affairs (USG) and as Emergency Relief Coordinator (ERC)<sup>193</sup>. The ERC is the head of the Inter-Agency Standing Committee (IASC), which gathers all relevant humanitarian stakeholders, reaches consensus, and coordinates the international response efforts in case of disaster<sup>194</sup>. As UNOCHA is the main communication point of the UN during crisis management operations, it

<sup>181</sup> UN General Assembly Resolution 46/182, 1991, Art. I.4

<sup>182</sup> Jeong, B. G., & Yeo, J. *United Nations and Crisis Management*, 2017, p. 3.

<sup>183</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 5.

<sup>184</sup> Draft Articles on the Protection of Persons in the Event of Disasters, with Commentaries, 2016, p. 21.

<sup>185</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 5.

<sup>186</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 5.

<sup>187</sup> UNDAC Strategy 2018 – 2021, 2018, p. 4.

<sup>188</sup> *United Nations Disaster Assessment and Coordination UNDAC Field Handbook (7th ed.)*, 2018, A.1.1 & A.1.2. pp. 3 & 4 & UNDAC Strategy 2018– 2021, 2018, p. 4.

<sup>189</sup> Jeong, B. G., & Yeo, J. *United Nations and Crisis Management*, 2017, p. 2.

<sup>190</sup> Annex 12.

<sup>191</sup> Jeong, B. G., & Yeo, J. *United Nations and Crisis Management*, 2017, p. 2.

<sup>192</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 5.

<sup>193</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 5.

<sup>194</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 5.

collaborates closely with NATO's EADRCC. However, there is no bilateral agreement in place on their cooperation although there is a shared data center that both organisations use<sup>195</sup>. Nevertheless, the cooperation between UNOCHA and NATO bodies that are involved in crisis management is seen as "excellent"<sup>196</sup>.

During the policy development and coordination, the UNOCHA collaborates with other humanitarian partners to make sure that appropriate and effective policies will be utilized during a disaster situation. Examples of these activities are handling the issue of internally displaced persons, humanitarian ground rules reinforcement, and how to transition from relief operations to developmental operations effectively<sup>197</sup>.

UNOCHA engages in the advocacy of humanitarian issues, which means that human rights violations are being platformed on different levels<sup>198</sup>. This is achieved through briefings to inter-governmental bodies such as the UN Security Council and other parts of the UN. Issues that are discussed mostly involve sanctions, distribution of small arms, landmines, and the security of humanitarian staff<sup>199</sup>. Furthermore, a Response Support Branch forms a part of UNOCHA. This Section includes the Emergency Response Section which manages the UNDAC system, a system by which the UNDAC is notified of a disaster and sent to the stricken place within 48 hours<sup>200</sup>. In a scenario such as an earthquake, UNOCHA would get a message into its alert center. After that, a task force is formed "within days or within hours"<sup>201</sup>. Subsequently, additional resources are called in, often through the stricken nation itself, not UNOCHA<sup>202</sup>. Although UNOCHA will try to send out teams to a disaster site as soon as possible, the resources are dependent on the decision-making process of the UN Member States. If the decision for the utilization of resources for crisis management is based on a decentralized decision-making system, meaning that a dedicated crisis management person or organisation makes the decisions, then the response to a crisis will be much faster than in the case of a centralized decision-making system<sup>203</sup>. During crisis management operations the EADRCC and all other relevant partners are kept well informed through coordination platforms<sup>204</sup>.

## 6.2 UN Consequence management

Consequence management in the UN is referred to as "early recovery" which is defined as a "phase that encompasses the restoration of basic services, livelihoods, shelter, governance, security and the rule of law, environment and social dimensions, including the reintegration of displaced populations"<sup>205</sup>. This step aims to create "augment ongoing humanitarian assistance operations, support spontaneous recovery initiatives by affected communities, and establish the foundation of long-term recovery"<sup>206</sup>. The UN and other actors support the government in recovery efforts. Early recovery has three main goals<sup>207</sup>:

- augment ongoing emergency assistance operations by building on humanitarian programmes;

<sup>195</sup> Annex 12.

<sup>196</sup> Annex 12.

<sup>197</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 6.

<sup>198</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 6.

<sup>199</sup> OCHA Orientation Handbook on Complex Emergencies, 1999, p. 6.

<sup>200</sup> United Nations Disaster Assessment and Coordination UNDAC Field Handbook (7th ed.), 2018, pp. 3 & 4 & UNDAC Strategy 2018– 2021, 2018, 81. p. 4.

<sup>201</sup> Annex 12.

<sup>202</sup> Annex 12.

<sup>203</sup> Annex 12.

<sup>204</sup> Annex 12.

<sup>205</sup> UNTerm, n.d.

<sup>206</sup> UNTerm, n.d.

<sup>207</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 6.

- support spontaneous recovery initiatives by affected communities;
- establish the foundations for long-term recovery.

The early recovery led by the stricken nation is supported by the Resident and/or a Humanitarian Coordinator. The main points that deal with early recovery are coordinated by The Bureau for Crisis Prevention and Recovery (BCPR) of the UN<sup>208</sup>. An early recovery needs assessment is performed within 4 weeks, which is translated into a strategic framework. Based on this framework, the government and other stakeholders create an action plan which should be implemented within 18 months<sup>209</sup>.

### 6.2.1 Consequence management in the area of CBRN defence

When it comes to CBRN incidents, the UN focuses on terrorism and, through the Sendai Framework, on man-made or natural biological hazards and risks. The United Nations Counter-Terrorism Strategy, in its “measures to prevent and combat terrorism” section, specifies and emphasizes the coordination between countries in combating terrorist threats, including CBRN substances and other lethal materials<sup>210</sup>. Specific UN documents on consequence management, or rehabilitation, in the aftermath of a CBRN incident could not be found.

## 6.3 UN Comprehensive approach

The concept of a comprehensive, or integrated approach, was conceived in 1999 during the operations in Kosovo to ensure that the division of labor exists among the actors and that it’s effective<sup>211</sup>. The integrated approach of the UN was further institutionalized in the Brahimi report, which stated that all UN bodies should cooperate as the impact of their collective resources would be more effective<sup>212</sup>. Furthermore, the UN has also increased its cooperation with regional actors. As the expectations and pressure grew on the UN, it required more skills, comprehensive competencies, and financial resources that no single organisation could gather alone<sup>213</sup>. Therefore, it is important to highlight that cooperation and the sharing of resources is vital for successful peacekeeping or crisis management. This led to increased cooperation with regional actors in order to gain vital information and to strengthen the legitimacy and support in a conflict or crisis area<sup>214</sup>. Coordination between the UN and other actors in the same field is also needed to prevent “duplication, rivalry, and inhibited impact” in an operational area<sup>215</sup>. Due to the increased cooperation between the UN and regional organisations, these regional organisations have started to see the UN as an “exit strategy”, meaning that the UN takes over the responsibilities of regional actors after these regional actors have performed a limited intervention<sup>216</sup>.

### 6.3.1 Comprehensive approach in the area of CBRN defence

The UN primarily focuses on CBRN incidents and WMD non-proliferation. However, the UN is also involved in the consequence management resulting from the failure to uphold non-proliferation agreements. Terrorists who acquire CBRN weapons serve as an example. In order to perform this task successfully, the UN works with individual nations, but also with international organisations to prevent the proliferation of CBRN weapons, improve planning and coordination in a response to a CBRN attack, and make sure that

<sup>208</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 7.

<sup>209</sup> Roles and Responsibilities of the United Nations System in Disaster Management, n.d. p. 7.

<sup>210</sup> UN Global Counter-Terrorism Strategy, 2006, p. 5.

<sup>211</sup> Debuysere, L., & Blockmans, S. Crisis Responders: Comparing Policy Approaches of the EU, the UN, NATO and OSCE with Experiences in the Field, 2019, p. 248.

<sup>212</sup> Debuysere, L., & Blockmans, S. Crisis Responders: Comparing Policy Approaches of the EU, the UN, NATO and OSCE with Experiences in the Field, 2019, p. 248.

<sup>213</sup> Koops, J. & Tardy, Thierry & Williams, Paul. Oxford Handbook of United Nations Peacekeeping Operations, 2015, p. 62.

<sup>214</sup> Koops, J. & Tardy, Thierry & Williams, Paul. Oxford Handbook of United Nations Peacekeeping Operations, 2015, p. 62.

<sup>215</sup> Koops, J. & Tardy, Thierry & Williams, Paul. Oxford Handbook of United Nations Peacekeeping Operations, 2015, p. 62.

<sup>216</sup> Koops, J. & Tardy, Thierry & Williams, Paul. Oxford Handbook of United Nations Peacekeeping Operations, 2015, p. 62.

sensitive CBRN technology does not fall into terrorist hands<sup>217</sup>. An example of this is the cooperation with NATO in Jordan with regards to CBRN terrorist defence<sup>218</sup>. Furthermore, in resolution 1540, the UN states its support for multilateral treaties with the goal of eliminating and/or preventing the proliferation of CBRN weapons<sup>219</sup>. In conclusion, when it comes to the area of CBRN defence, the UN works with national and international actors to prevent the use of CBRN weapons by terrorists. Furthermore, the UN passed further conventions on chemical and biological weapons such as the CWC and the BWC. However, no specific guidelines could be found that touch upon the comprehensive approach and non-terroristic or non-adversarial CBRN incidents.

## 7 NATO Civil-Military Cooperation (CIMIC)

As stated earlier, NATO involves non-military partners in its operations as dictated by the comprehensive approach. This means that NATO bodies, as well as NATO military forces, interact with civilian organisations. This is known as civil-military interaction (CMI). CMI is defined as “a group of activities, founded on communication, planning and coordination, that NATO military bodies share and conduct with international and local non-military actors, both during NATO operations and in preparation for them, thereby mutually increasing the effectiveness and efficiency of their respective actions in response to crises”<sup>220</sup>. From this, a doctrine has been created that specifies how successful cooperation between civilian and military actors should look like<sup>221</sup>. This doctrine is known as CIMIC.

NATO’s CIMIC is defined as “A joint function comprising a set of capabilities integral to supporting the achievement of mission objectives and enabling NATO commands to participate effectively in a broad spectrum of civil-military interaction with diverse non-military actors”<sup>222</sup>. Non-military actors constitute local civilian actors, private sector actors, local and national governmental organisation, but also non-governmental organisations<sup>223</sup>. This means that the UN is also a potential CIMIC partner during crisis management. CIMIC originated from the gathered experience predominantly in Yugoslavia, where it was concluded that strictly military operations were not sufficient to effectively manage a crisis<sup>224</sup>. CIMIC is utilized across the full spectrum of environments, operations, and domains such as the land, air, maritime, space, and cyber domain and is applicable to all types of NATO operations<sup>225</sup>. The main function of CIMIC is to support NATO forces, provide civil-military liaison, and support the non-military actors and the civil environment<sup>226</sup>.

In order to implement CIMIC successfully, the six CIMIC principles must be adhered to<sup>227</sup>:

1. Understand the civil environment;
2. Understand the aims and objectives of all non-military actors;
3. Respect civilian primacy;

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<sup>217</sup> UNOCT. Chemical biological, radiological and nuclear terrorism, n.d.

<sup>218</sup> UNOCT and NATO launch a project to prevent and counter chemical, biological, radiological and nuclear terrorism in Jordan, 2019.

<sup>219</sup> UN Resolution 1540, 2004, p. 1.

<sup>220</sup> NATOTerm, 2017.

<sup>221</sup> CIMIC Handbook, 2020, par. 1.2.

<sup>222</sup> AAP-06, 2020, p. 26.

<sup>223</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 1-3.

<sup>224</sup> Zaborowski, W. The New Policy of the North Atlantic Treaty Organization for Civil-Military Cooperation (CIMIC), 2017, p. 112.

<sup>225</sup> CIMIC Handbook, 2020, par. 1.3. & Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-1.

<sup>226</sup> CIMIC Handbook, 2020, par. 2.1.2.

<sup>227</sup> CIMIC Handbook, 2020, par. 2.1.1.



4. Act with integrity;
5. Integrate planning with non-military units;
6. Establish effective relationships and communication with non-military actors.

Other important factors have to be considered such as cultural awareness, common goals, transparency, and communication<sup>228</sup>. According to a Civil-Military Cooperation Centre of Excellence (CIMIC COE) staff member, “one of the basic skills for civil-military cooperation and civil-military interaction is being aware of cultural differences and being able to bridge them to translate certain aspects”<sup>229</sup>. NATO establishes contact with non-military actors before an operation in order to prepare itself<sup>230</sup>. However, it is ideal that NATO military actors and non-military actors develop a good relationship before a crisis through “training, education, and other initiatives”<sup>231</sup>. Nevertheless, NATO CIMIC doctrine is military-centric and focuses on the accomplishment of a military mission. In the “Respect civilian primacy” principle that can be found in AJP 3.19, it can be read that “Military support to non-military actors and to the civil environment should only be conducted if it is required to create the conditions that support the accomplishment of the military mission”<sup>232</sup>. During CIMIC operations NATO has to adhere to the domestic law as well as international law<sup>233</sup>. Furthermore, NATO places great emphasis on respecting the impartiality of non-military actors in the context of sharing information<sup>234</sup>. This means that communication systems should be interoperable with non-military actors, which requires a joint software to transfer information from one actor to the other<sup>235</sup>.

CIMIC Crisis Management Operations are split into five main areas: military contribution to peace support, non-combatant evacuation operations, military contribution to humanitarian assistance, counter irregular activities, and military contribution to stabilization and reconstruction<sup>236</sup>. An elaboration on these areas can be found in Annex 9.

The Supreme Headquarters Allied Powers Europe (SHAPE) is granted authority by the Supreme Allied Command Europe (SACEUR) to conduct liaison with non-military actors that have a long-standing cooperation with NATO<sup>237</sup>. This is crucial, as the UN, being a long-time partner of NATO, is one of the entities with which the SHAPE can liaise in crisis situations.

Additionally, the NATO accredited CIMIC COE cooperates with the UN in the development of policies and doctrines pertaining to CIMIC<sup>238</sup>. There are designated points of contact, courses are held between the two organisations and an official MOU has been signed between UNOCHA and the CIMIC COE<sup>239</sup>.

<sup>228</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, pp. 1-6 & 1-7.

<sup>229</sup> Annex 17.

<sup>230</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 1-3.

<sup>231</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 1-3.

<sup>232</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-2.

<sup>233</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 1-9.

<sup>234</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-3.

<sup>235</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-3.

<sup>236</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 3-12 & 3-13.

<sup>237</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-4.

<sup>238</sup> Annex 16.

<sup>239</sup> Annex 16, 17, & 12.

## 7.1 NATO Comprehensive Crisis and Operations Management Centre (CCOMC)

The CCOMC is a strategic level entity that is an embodiment of the comprehensive approach doctrine of NATO<sup>240</sup>. The CCOMC is SHAPE's organisation for thinking, planning and acting strategically and comprehensively in multiple crises and operations simultaneously. It provides an understanding of the full breadth of the crisis spectrum; identifying crises and assessing their impact on the security of the Alliance and on other crises; and strategically directing ongoing NATO operations in order to deliver comprehensive outcomes of collective benefit to the Alliance, its partners and nations in need of assistance. An important component of the CCOMC is the Crisis Identification Group (CIG) which is itself made up of two components, the J2 Intelligence and the Civil-Military Analysis (CMA)<sup>241</sup>. The role of the CIG is to identify “key indicators of crisis, or potential crisis”<sup>242</sup>. The CMA provides specialized research into specific regional and thematic contexts, including the political framework, economic aspects which may influence a crisis, and social characteristics of a location<sup>243</sup>. Additionally, a Technical Agreement (TA) between the JCBRN Defence COE Sponsoring Nations, HQ SACT, and SHAPE is currently negotiated. The TA pertains to the provision of “technical and scientific CBRN reachback support to SHAPE as well as CBRN subject matter expertise in support of CBRN planning process...” provided by the JCBRN Defence COE to the Alliance<sup>244</sup>. The JCBRN Defence COE capabilities, knowledge and skills can be utilized in cooperation with the UN, if required and approved.

## 7.2 NATO Civil Emergency Planning Committee (CEPC)

Civil emergency planning (CEP) entails the protection of vulnerable societies against crisis situations. Although CEP is a national responsibility, the mission of NATO is to “share information on national planning activities to ensure the most effective use of civil resources for use during emergency situations” and focuses on planning activities that cannot be achieved at the national level<sup>245</sup>. The CEPC is NATO’s advisory organ in this matter and provides guidance and coordination, and it bases its conduct on the seven baseline requirements which are<sup>246</sup>:

1. assured continuity of government and critical government services
2. resilient energy supplies
3. ability to deal effectively with the uncontrolled movement of people
4. resilient food and water resources
5. ability to deal with mass casualties
6. resilient communications systems
7. resilient transportation systems

The planning is done by the four subordinate planning groups of the CEPC which are civil protection, transport, public health and food, and industry and communication<sup>247</sup>. The groups coordinate civil

<sup>240</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-8.

<sup>241</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-8.

<sup>242</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-8.

<sup>243</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-8.

<sup>244</sup> Technical arrangement, 2021, p. 5.

<sup>245</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-9.

<sup>246</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-9 & 4-10.

<sup>247</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-10.

emergency planning through dialogue with national government representatives, industry experts, and military representatives<sup>248</sup>.

According to the NAC, the roles of NATO for civil emergency planning are<sup>249</sup>:

- civil support for Alliance military operations under Article 5
- support for non-Article 5 crises response operations
- support for national authorities in civil emergencies (via Euro-Atlantic Disaster Response Coordination Centre)
- support for national authorities in the protection of populations against terrorism and the effects of weapons of mass destruction
- cooperation with NATO partners.

### 7.3 NATO The Multinational NATO CIMIC Group (MNCG)

The MNCG is a specialized NATO unit created for civil-military cooperation at the operational and tactical level<sup>250</sup>. It also provided basic CIMIC training, expertise, and provides capabilities to<sup>251</sup>:

- Augment CIMIC staff elements at different levels
- Form one or more CIMIC units at the tactical level
- Form the defined CIMIC elements at the operational level
- Augment CIMIC units at the tactical and operational level with functional specialists or support them from the MNCG peacetime location headquarters

The Group can be deployed by the SACEUR for collective defence operations under Article 5, but also crisis response operations under non-Article 5<sup>252</sup>.

### 7.4 NATO CIMIC and CBRN defence

Since 2009 NATO is developing CBRN defence capabilities with regards to CMI<sup>253</sup>. As stated before, NATO defines CMI as “a group of activities, founded on communication, planning and coordination, that NATO military bodies share and conduct with international and local non-military actors, both during NATO operations and in preparation for them, thereby mutually increasing the effectiveness and efficiency of their respective actions in response to crises”<sup>254</sup>. This means that cooperation with international civil organisations, such as the UN, on CBRN threats is also well grounded. Although civil preparedness and resilience is primarily a national endeavor, the CMI in the area of CBRN defence is embedded into NATO's civil response system<sup>255</sup>. This can be concluded from NATO's Strategic Concept which states that, for NATO to be effective on all spectrums of crisis management, enhanced “integrated civilian-military planning” is

<sup>248</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-10.

<sup>249</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-10.

<sup>250</sup> Multinational Cmic Group (MNGC) website, n.d.

<sup>251</sup> Multinational Cmic Group (MNGC) website, n.d. & Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 4-11.

<sup>252</sup> Multinational Cmic Group (MNGC) website “About MNGC”, n.d.

<sup>253</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 7.

<sup>254</sup> NATOTerm, 2017.

<sup>255</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, pp. 7 & 8.

needed<sup>256</sup>. This also includes the area of CBRN defence. There are three ways in which NATO can aid civilians during crises<sup>257</sup>:

1. Civil crisis management situations
2. in consequence management of disaster including WMD or CBRN substances use
3. in case of necessary direct response to civilians when civil authorities do not exist or are not in power.

NATO has several capabilities that can deal with CBRN incidents. NATO defines capabilities as “the ability to create an effect through the employment of integrated set aspects categorized as doctrine, organisation, training, materiel, leadership development, personnel, facilities, and interoperability”<sup>258</sup>. The CJ-CBRND-TF serves as an example of a NATO body that can be utilized during CBRN incidents. The unit is specialized in CBRN defence and is trained for both military and peace scenarios<sup>259</sup>. It consists of a Joint Assessment Team, Task Force Headquarters, reconnaissance, decontamination, Deployable CBRN Analytic Laboratories, CBRN Multirole Exploitation and Reconnaissance Team, and an Aerial Radiological Survey<sup>260</sup>. Although the Task Force is under the command of the SHAPE, it still needs approval from the NAC for deployment in case of an incident, making the reaction time slow<sup>261</sup>. One limitation of NATO in this regard is the long response time, as civil emergency response units can react in a matter of hours, NATO response time is measured in days<sup>262</sup>. It should be noted that the mobilization timeframe of the Task Force will vary. Additionally, NATO member countries have established the previously mentioned inventory of “national civil and military assets and capabilities that could be made available to assist both stricken member and partner countries following a CBRN incident” which is maintained and updated by the EADRCC<sup>263</sup>.

Furthermore, the NATO document called “Non-Binding Guidelines for Enhanced Civil-Military Cooperation to Deal With the Consequences of Large-Scale CBRN Events Associated With Terrorist Attacks” provides advice on the interaction between military and civil components during a terrorist CBRN attack. It discusses the reaction to CBRN incidents on the operational and tactical level<sup>264</sup>. Additionally, the JCBRN Defence COE has recently produced a report called “Cross-Border Cooperation in Case of CBRN Incident” which also discusses the dimension of CBRN terrorism and, thereby, supports the previously mentioned Non-Binding Guidelines. Moreover, the topic of civil-military cooperation to deal with the consequences of large-scale CBRN incidents associated with terrorist attacks was discussed during the 2019 JCBRN Defence COE Advisors Conference in Prague<sup>265</sup>.

During the conference, several recommendations were provided such as<sup>266</sup>:

- the development of a joint-military concept that could allow the coordination of CBRN consequence management across NATO

<sup>256</sup> NATO Strategic Concept, 2010, p. 21.

<sup>257</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 23.

<sup>258</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 10.

<sup>259</sup> NATO website. Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, 2020.

<sup>260</sup> NATO website. Combined Joint Chemical, Biological, Radiological and Nuclear Defence Task Force, 2020.

<sup>261</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 18.

<sup>262</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 17.

<sup>263</sup> Allied joint doctrine for the military contribution to humanitarian assistance (AJP-3.4.3(A)), 2015, pp. 2-5 & 2-6.

<sup>264</sup> Non-Binding Guidelines for Enhanced Civil-Military Cooperation to Deal with the Consequences of Large-Scale CBRN Events Associated with Terrorist Attacks, n.d.

<sup>265</sup> JCBRN Defence COE Advisors Conference, 2019. (since 2021 onwards renamed to JCBRN Defence COE Annual Conference)

<sup>266</sup> JCBRN Defence COE Annual Conference Report, 2021, p. 5.

- the review of terminology, doctrines, etc.
- increasing NATO-EU cooperation in the area of CBRN defence, specifically in the fields of civil-military interaction and cooperation

## 8 UN Civil-Military Coordination (UN-CMCoord)

The UN defines UN-CMCoord as “the essential dialogue and interaction between civilian and military actors in humanitarian emergencies that is necessary to protect and promote humanitarian principles, avoid competition, minimize inconsistency and, when appropriate, pursue common goals. Basic strategies range from cooperation to coexistence. Coordination is a shared responsibility facilitated by liaison and common training”<sup>267</sup>. The main UN-CMCoord functions are<sup>268</sup>:

1. Establish and sustain dialogue with military and other armed actors.
2. Establish mechanisms for information exchange and humanitarian interaction with military forces and other armed actors.
3. Assist in negotiations in critical areas of interaction between humanitarian workers and military forces and other armed actors.
4. Support the development and dissemination of context-specific guidance for the interaction of the humanitarian community with military forces and other armed actors.
5. Observe the activity of military forces and other armed actors to ensure that distinction is maintained and to avoid negative impact on humanitarian action.

The UN-CMCoord is primarily a humanitarian function as the UN is primarily a humanitarian organisation<sup>269</sup>. Therefore, the UN-CMCoord is mainly used to provide needs alone in a non-discriminatory way where the UN actors do not take any sides, which means that impartiality is a central tenant of the UN-CMCoord doctrine<sup>270</sup>. To achieve impartiality, the UN-CMCoord officers, who represent the UN humanitarian bodies when engaging with military actors, have to distance themselves from conflict or internal turmoil, and/or avoid the use of the military in certain situations, including distributing aid<sup>271</sup>. UN-CMCoord’s focus lies on the mobilization of foreign military assets (FMA) for the support of humanitarian operations; however, the focus is being shifted to negotiation, dialogue, and coordination<sup>272</sup>. The UN-CMCoord is started out with an assessment of the civil-military environment<sup>273</sup>. This assessment is divided into eight steps and consists of assessing the operating environment, defining the operating environment, identifying the actors, determination of the objectives of military actors, analyzation of the relationship between the previously mentioned actors, identification of potential issues, assessment of coordination mechanisms, and assessment of the FMA and its impact on the mission<sup>274</sup>.

<sup>267</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 8.

<sup>268</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 8.

<sup>269</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 9.

<sup>270</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 9.

<sup>271</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 18 & 29.

<sup>272</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 55 & 56.

<sup>273</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 66.

<sup>274</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 66 & 70.

The UN utilizes a great amount of UN bodies during crisis management, which means that they are also involved in the UN-CMCoord process. Additional information on these UN bodies can be found in Annex 10.

### 8.1 UN Disaster Assessment and Coordination (UNDAC)

UNDAC is a non-standing rapid response team that can be deployed anywhere in the world within 12 to 48 hours of an occurrence of a disaster. The UNDAC team can be formally requested by the nation or by the resident or humanitarian coordinator in a given country<sup>275</sup>. The teams support “cross-sectoral emergency assessment, coordination of relief, and information management”<sup>276</sup>. On-site, contact should be made between the UNDAC teams and the UN-CMCoord officer. The UNDAC members know how to effectively cooperate with the military, which makes civil-military cooperation more efficient on the ground<sup>277</sup>. The military actors can be utilized under different frameworks such as a national military, international military in crisis management operations under the umbrella of the EU, the UN, or bilateral agreements, international military used in disaster response, and national military under the umbrella of civil protection. An example of this are the Russian EMERCOM emergency response units, whose rapid response Civil Defence Troops consist of military troop divisions and regiments<sup>278</sup>. As mentioned previously in the “INSARAG guidelines”, the UNDAC will establish an OSOCC on the disaster site for enhanced communication. This will allow the emergency response forces to request appropriate aid to the international community in a timely manner. The UNDAC also establishes a Reception and Departure Centre (RDC) with the aim to coordinate the arrival and deployment of additional disaster response teams arriving at the site<sup>279</sup>. The main objective of the RDC is to register incoming teams, brief them on the situation, direct the teams to the OSOCC, and provide information to the OSOCC on the new teams to facilitate operational planning<sup>280</sup>.

The UNDAC members are trained in spotting and analyzing the environment<sup>281</sup>. However, the training of different members of UNDAC may vary due to their previous national education and training in other organisations<sup>282</sup>. Nevertheless, overall UNDAC members are not trained nor equipped for CBRN crises by the UN<sup>283</sup>. The basic policy of UN personnel in contaminated areas is to evacuate<sup>284</sup>. Although UNDAC members, and other relevant operators in crisis management, were offered CBRN defence training by several UN Members States, the training was declined as the timeframe for the proposed training was too long to be feasible<sup>285</sup>.

### 8.2 UN The Inter-Cluster Coordination Group (ICCG)

Clusters are groups comprised of humanitarian organisations, UN and non-UN organisations alike, that are represented in each of the main humanitarian action sectors, such as water, health, and logistics<sup>286</sup>. All of them have designated responsibilities and objectives. The Inter-Cluster Coordination Group serves as a platform for these clusters to cooperate and create an efficient humanitarian response<sup>287</sup>. The ICCG

<sup>275</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 129.

<sup>276</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 129.

<sup>277</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 129.

<sup>278</sup> Thomas, L., EMERCOM: Russia's Emergency Response Team, 1995, p. 3.

<sup>279</sup> OCHA website. On-Site Operations Coordination Centre (OSOCC), n.d.

<sup>280</sup> OCHA website. On-Site Operations Coordination Centre (OSOCC), n.d.

<sup>281</sup> Annex 12.

<sup>282</sup> Annex 12.

<sup>283</sup> Annex 12.

<sup>284</sup> Annex 12.

<sup>285</sup> Annex 12.

<sup>286</sup> Humanitarian Response. What is the Cluster Approach?, n.d.

<sup>287</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 42.

is also involved in “joint analysis and planning, agreeing on prioritization of interventions, geographic areas and vulnerable groups, modalities of response, and avoiding gaps and duplications in service delivery”<sup>288</sup>. The overall strategic direction of a humanitarian response operation is provided by this organ<sup>289</sup>. The key clusters for UN-CMCoord are the logistics cluster, the protection cluster, the water, sanitation and hygiene cluster, and the health cluster<sup>290</sup>. The cluster organisation can be observed in figure 4.

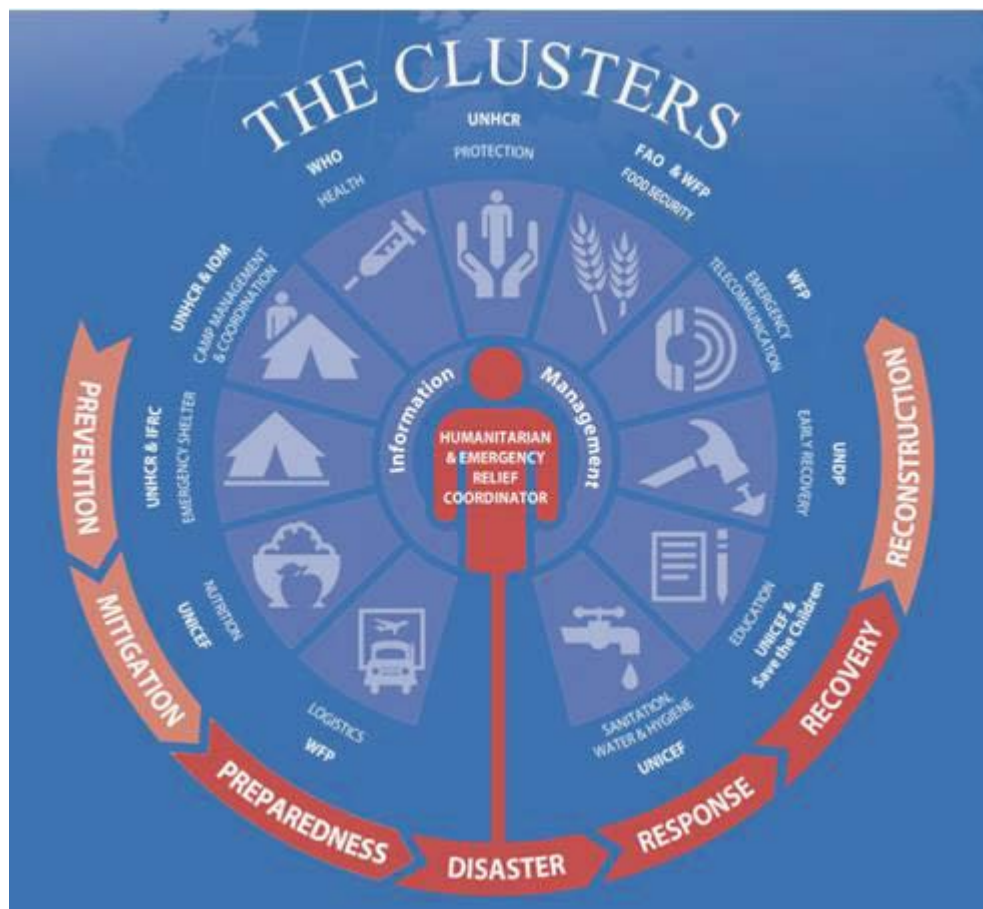


Figure 4. The cluster system. Retrieved from <https://un-spider.org/risks-and-disasters/the-un-and-disaster-management#no-back>

<sup>288</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 42.

<sup>289</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 42.

<sup>290</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 42.

### 8.3 UN Humanitarian Country Team (HCT)

This HCT is composed of high-level representatives of several humanitarian organisations in order to achieve effective decision-making and is chaired by the humanitarian coordinator<sup>291</sup>. The HCT includes UN organisations, but also local and international NGOs. The main objectives of the HCT are the adoption of joint policies and strategies, setting common objectives and standardizing the strategies to achieve them, agreeing on common policy and guidance, and the promotion of and guidance to cluster lead agencies<sup>292</sup>.

### 8.4 UN-CMCoord and CBRN defence

No UN CBRN defence concept for civil-military coordination could be found.

## 9 NATO-UN resource reliance

Michael F. Harsch in his book “The Power of Dependence NATO-UN Cooperation in Crisis Management” proposes the Resource Dependence Theory (RDT) which asserts that the extent to which NATO and the UN cooperate is based on their mutual dependence on resources. According to the theory, organisations have “three main objectives: (1) organizational survival, (2) organizational autonomy, and (3) mission specific goal attainment”<sup>293</sup>. The theory asserts that all three of these components are reliant upon the ability to control and acquire resources to attain them<sup>294</sup>. Such resources can range from physical needs such as material, funding, and experts to symbolic needs such as legitimacy, prestige, and reputation; and almost all organisations are dependent on outside resources in one way or another<sup>295</sup>. This puts forward certain dilemmas for organisations. An organisation can choose “accessing resources via cooperation, with its associated risk for organizational autonomy; or pursuing autonomous strategies for resource acquisition, with their long-term risks for goal attainment and – potentially – organizational survival”<sup>296</sup>. It is assumed that the default position of an organisation is to gather the resources autonomously, provided that this position does not put the organisation’s survival in danger<sup>297</sup>.

Furthermore, the dependence of international organisations is based on their perception of a resource’s essentiality and substitutability<sup>298</sup>. If an international organisation cannot achieve its objectives and survive without a resource, the resource is perceived as essential<sup>299</sup>. When it comes to substitutability, a resource is non-substitutable if an international organisation “perceives it can only be acquired from an alternative source by incurring unacceptable losses”<sup>300</sup>. Harsch concludes that if two international organisations perceive that their counterpart controls resources that are essential and non-substitutable, “then resource dependence is high and generally balanced”<sup>301</sup>. Therefore, this will result in a high grade of cooperation between the two international organisations.

Harsch provides several examples of this occurrence, mostly based on cooperation in conflict situations between the UN and NATO. One example provided by Harsch is the example of the conflict in Bosnia. In that theatre, the cooperation was initially weak because:

<sup>291</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 40.

<sup>292</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 40.

<sup>293</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 22.

<sup>294</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 22.

<sup>295</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 22.

<sup>296</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 23.

<sup>297</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 23.

<sup>298</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 27.

<sup>299</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 27.

<sup>300</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 27.

<sup>301</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 27.



“The UN pursued a policy of minimal involvement in the war in Bosnia to attain its narrow goals, which limited its dependence on NATO’s military capabilities... NATO was interested in UN mandates to legitimize its presence in Bosnia, yet stopped short of close operational cooperation with the UN forces to avoid reducing its organizational autonomy. Thus, despite the missions interconnected mandates, NATO and the UN regarded their partners material capabilities as inessential and even counterproductive for organizational security and relevance in Bosnia”<sup>302</sup>.

Only after Operation Deliberate Force commenced, did the cooperation between the two organisations increase. The UN did not possess over a strong military organisational capacity to conduct large military operations<sup>303</sup>. NATO did possess over this capacity, making the reliance of the UN on NATO stronger. NATO on the other hand wanted to cooperate more closely with UN ground troops as it aimed for a swift victory. Furthermore, it needed legitimacy that the UN could provide<sup>304</sup>. Harsch concludes that “NATO and the UN faced high resource dependence during the campaign” which improved their cooperation<sup>305</sup>.

Another example is the case of Kosovo, where NATO proceeded with military action without the approval of the Security Council. According to Harsch NATO did seek the permission of the Security Council initially, as the Alliance needed the legitimacy the UN could provide<sup>306</sup>. However, due to the fact that the Security Council was reluctant to provide authorization, NATO was concerned about its autonomy, which tempered its “desire for UN authorization”<sup>307</sup>. NATO member countries believed that legitimacy could be provided by other sources, such as normative arguments about the fact that human rights violations are taking place in Kosovo, which requires NATO to respond<sup>308</sup>. When NATO bombing campaign commenced, the cooperation was virtually non-existent with the UN<sup>309</sup>. This was due to the fact that NATO had little incentive to cooperate with the UN as the Alliance no longer needed the legitimacy the UN could provide<sup>310</sup>. Thus, dependence was very imbalanced in the case of military operations<sup>311</sup>. The two organisations did, however, cooperate during the refugee crisis as both organisations were dependent on each other in that context<sup>312</sup>. The organisations worked together on transportation and accommodation for the refugees. This included “logistics, refugee camp construction, refugee transport, and road repairs”<sup>313</sup>. NATO desired legitimacy for participating in the refugee crisis that the UN could provide, alongside their expertise. The UN, on the other hand, relied on NATO’s military, financial aid, and logistics<sup>314</sup>.

In conclusion, historical evidence shows that reliance on each other’s resources, be they physical or not, serves as an incentive for tighter cooperation.

<sup>302</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 49.

<sup>303</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, pp. 51 & 52.

<sup>304</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 52.

<sup>305</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 52.

<sup>306</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 66.

<sup>307</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 27.

<sup>308</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, pp. 66 & 67.

<sup>309</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 68.

<sup>310</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 68.

<sup>311</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 68.

<sup>312</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 70.

<sup>313</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 70.

<sup>314</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 70.

## 10 Information sharing

Information sharing between different international organisations may pose some challenges. Primarily, issues of confidentiality come up when sharing information between international organisations. Thus, Harsch states that “states are highly reluctant to share intelligence information or military tactics across organizational boundaries because they face the possibility that the partner organization will disclose or misuse this information”<sup>315</sup>. Nevertheless, information sharing is a crucial element of crisis management, and different standards on the sharing of information may lead to miscommunication or mismanagement of a crisis. In this section, the information sharing practices of both NATO and the UN will be analyzed to see if this aspect may cause challenges in future crisis management operations. Historical cases of information sharing between the two organisations can be found in Annex 11.

### 10.1 NATO information sharing policy

NATO’s information sharing situation is complex. Being primarily a political and military Alliance, secrecy is imperative, and therefore, NATO operates primarily on a “need-to-know” basis<sup>316</sup>. NATO defines information as “unprocessed data of every description which may be used in the production of intelligence”<sup>317</sup>. The NATO information policy is structured into a hierarchy. The highest document on information security is the “The NATO Information Management Policy (NIMP)”<sup>318</sup>. Under that are other information management related policies, information management related directives, and guidelines and standards are at the bottom<sup>319</sup>. This hierarchy of information documents can be seen in figure 5.

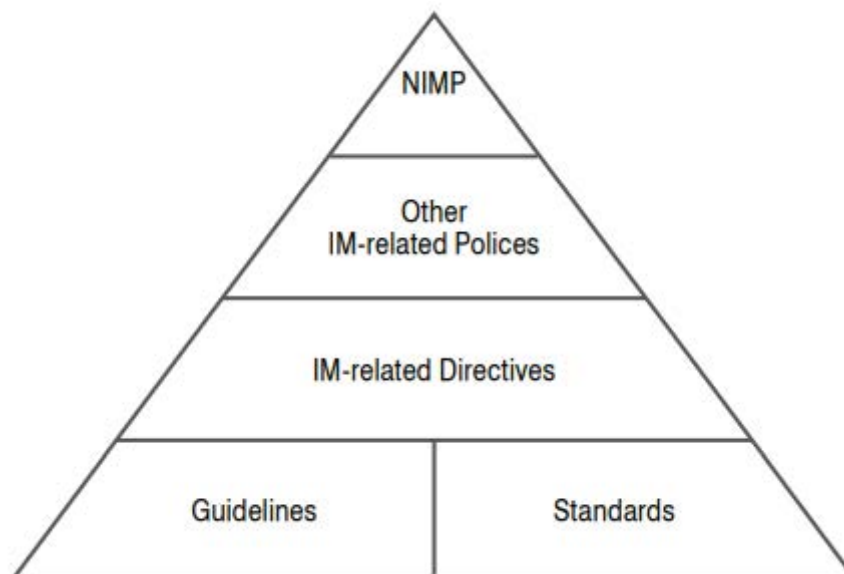


Figure 5. NATO Framework of Information Management. Retrieved from ‘Information Management in NATO (Part One)’ by G. Csanádi, 2018.

<sup>315</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 26.

<sup>316</sup> Csanádi, G. *Information Management in NATO (Part One)*, 2018, p. 138.

<sup>317</sup> NATOTerm, 2015.

<sup>318</sup> Csanádi, G. *Information Management in NATO (Part One)*, 2018, p. 139.

<sup>319</sup> Csanádi, G. *Information Management in NATO (Part One)*, 2018, p. 139.

According to the document “Allied Joint Publication-6” (AJP-6), NATO shares information within a framework of a “domain system”. These domains are<sup>320</sup>:

1. NATO domain: in this domain information security rules are established by NATO.
2. Mission domain: this domain is established during a specific mission where NATO, as well as non-NATO entities, cooperate. This means that the rules on communication and information security and exchange are created by all participants of such a mission. As the document states “a mission domain may be established independent of strict NATO policy in order to federate NATO CIS with CIS provided by partners, to include non-NATO entities, and to enable all partners in an operation to operate as equal peers”<sup>321</sup>.
3. National domain: in this domain, the communication and information procedures are established by a nation-state.

The document emphasizes the fact that “the three domains listed above may each support multiple network environments that operate at different security and releasability levels”<sup>322</sup>.

However, there are some difficulties when it comes to information sharing. According to Hanna et al. NATO has an easier time-sharing information with non-NATO organisations than sharing information within NATO itself<sup>323</sup>. Information sharing challenges within NATO are, among other things, caused by the lack of standard procedure throughout NATO when it comes to intelligence sharing<sup>324</sup>. Furthermore, NATO agencies are not rewarded for, and even have rules against, sharing information<sup>325</sup>. However, NATO has a more efficient policy when sharing information with non-NATO organisations through, for example, “bilateral sharing agreements, which include non-disclosure clauses, network security and hardware inspections, provision of software in some cases, and other information assurance measures”<sup>326</sup>. However, many non-NATO organisations do not meet NATO’s “need to know” criterium when it comes to information sharing<sup>327</sup>. Hanna et al. also mentions “absence of cooperative planning and direct lines of communication” as challenges for information sharing<sup>328</sup>.

<sup>320</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-20.

<sup>321</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-20.

<sup>322</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-20.

<sup>323</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 7.

<sup>324</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 7.

<sup>325</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 7.

<sup>326</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 7.

<sup>327</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 8.

<sup>328</sup> Hanna, Michael & Granzow, David & Bolte, Bjorn & Alvarado, Andrew. NATO Intelligence and Information Sharing: Improving NATO Strategy for Stabilization and Reconstruction Operations, 2017, p. 8.

## 10.2 UN information sharing policy

The UN defines information as “meaningful data”<sup>329</sup>. The guidelines on “sharing United Nations official information with external parties” state that<sup>330</sup>:

“The United Nations promotes transparency and collaboration with external partners and recognizes that sharing information may be appropriate and necessary to conduct official business. At the same time, it is essential to protect all information whenever it is shared with external partners in a way that upholds the Organization’s rights and interests, protects the rights of the Organization’s beneficiaries, and maintains public trust and confidence”.

The UN identifies seven types of documents and information that are deemed to be sensitive<sup>331</sup>. These can be found in Annex 8.

When it comes to sharing sensitive information, the UN specifies that a specific agreement should be drafted to explain the reason behind the sensitive information sharing and points out the objectives of sensitive information sharing<sup>332</sup>. There are several requirements that these information sharing agreements include, they can be found in Annex 8. However, it should be noted that the UN does not possess a specific document or guideline that deals with information sharing between itself and external partners.

During a disaster, an OSOCC is established, along with a virtual OSOCC. Through this medium, involved nations and organisations can share information involving “baseline country information (including relevant socio-economic and demographic information), entry points and other logistical aspects, relief team status, assessment information, cluster activities, civil-military coordination arrangements, environmental risks and security”<sup>333</sup>.

## 11 NATO-UN cooperation assessment

The interviewed NATO and UN staff members rate the cooperation between the two organisations as very good and even “excellent”<sup>334</sup>. NATO bodies are in constant contact and dialogue with the relevant UN bodies. However, some drawbacks have been identified by NATO staff members that make cooperation more difficult. Firstly, some NATO bodies have encountered a challenge with the identification and contacting of the relevant UN bodies for their tasks. As the UN is an organisation made up of different UN bodies who specialize in different tasks, all these bodies have to be contacted separately by NATO bodies<sup>335</sup>. UNOCHA, although the main communication point between the UN and NATO, does not distribute information received from NATO to other UN bodies which means that NATO bodies have to identify, contact, and distribute information to relevant UN bodies themselves<sup>336</sup>. As one staff member of the EADRCC stated “the biggest problem, I think, is who to talk to and in what case”<sup>337</sup>.

Additionally, although there is a lot of dialogue and high-level cooperation, it is assessed that more practical cooperation, particularly in the field of CBRN Preparedness, between NATO and the UN would

<sup>329</sup> UNTerm, n.d.

<sup>330</sup> Sharing United Nations Official Information With External Parties, n.d., p. 2.

<sup>331</sup> UN (2007), ST/SGB/2007/6, Secretary-General’s bulletin Information sensitivity, classification and handling

<sup>332</sup> Sharing United Nations Official Information With External Parties, n.d., p. 2.

<sup>333</sup> On-Site Operations Coordination Centre (OSOCC) Guidelines, 2018, p. 15.

<sup>334</sup> Annex 12, 15, & 18.

<sup>335</sup> Annex 12 & 15.

<sup>336</sup> Annex 15.

<sup>337</sup> Annex 15.

be beneficial for member states of both institutions. The examples of NATO-UN cooperation in Jordan and COVID-19 show that practical cooperation exists and is successful. Although these cases of practical cooperation are successful, there is a demand for more of such joint NATO-UN operations. The aim of this cooperation would be to assist NATO and UN Member or partner nations to “identify gaps and develop capacity” with “very rigorous objectives, with key performance indicators, with regular meetings at the national, regional, international level”<sup>338</sup>. This is important as this is a visible manifestation of how both organisations “can work and support where the need is”<sup>339</sup>. Due to the fact that the UN is pleased with the project in Jordan, it is open for other opportunities in the Middle East. However, it has been found that more funding and manpower is required for NATO to engage effectively in future projects. It has also been identified that the UN does not utilize all available expertise that NATO could offer. The CMDR COE serves as an example as a request for support mechanism is in place for the UN to call upon the CMDR COE if that would be needed<sup>340</sup>. However, the UN has not ever triggered this mechanism which means that the CMDR COE has no history of cooperation with the UN<sup>341</sup>.

Furthermore, after-action reports and reflections are done after exercises and operations, certainly between EADRCC and UNOCHA<sup>342</sup>. However, certain after-action reports are conducted informally through dialogue between both parties which means that no formal documents exist on certain cases which discuss what went wrong during an operation and how it could be improved<sup>343</sup>. Also, some after-action reports are not done transparently by participating nations or other parties, which means that the information in them can lead to false conclusions<sup>344</sup>. This is the case as some participants of a crisis management operation might want to seem more effective than they actually were in reality, which leads to the creation of such faulty reports<sup>345</sup>.

## 12 Historical examples, findings and lessons identified

The potential for CBRN incidents, be it terrorist or non-terrorist, in the future exists. This section takes certain scenarios with historical precedent into consideration and discusses how NATO and the UN might be involved in them. It should be highlighted that it would be improbable for international organisations, such as NATO or the UN, to provide ad hoc support in the following examples. Therefore, the following examples refer to disaster situations with a long-term horizon where international support from NATO or the UN might be called upon.

### 12.1 Terrorist attack in a subway station

#### 12.1.1 Historical context: Tokyo Sarin Terrorist Attack

On the 20<sup>th</sup> of March 1995, a chemical gas attack transpired in a subway system. The terrorist attack was perpetrated by a cult named Aum Shinrikyo which utilized Sarin gas for the attack<sup>346</sup>. During the attack, the terrorists have placed bags of liquid Sarin on the ground of the busy subway and poked it open with sharp umbrella tips<sup>347</sup>. The mass of people stamped on the bags which made the substance pour out and spread quicker. The Sarin gas attack was not fully effective as the Sarin that was used was only 30% pure,

<sup>338</sup> Annex 18.

<sup>339</sup> Annex 18.

<sup>340</sup> Annex 23.

<sup>341</sup> Annex 23.

<sup>342</sup> Annex 15.

<sup>343</sup> Annex 15.

<sup>344</sup> Annex 12.

<sup>345</sup> Annex 12.

<sup>346</sup> Olson, K. B. Aum Shinrikyo: Once and Future Threat?, 1999.

<sup>347</sup> Reader, I. Religious Violence in Contemporary Japan, 2013, p. 22.

which lead to a lower number of victims and injuries<sup>348</sup>. The attack claimed 12 casualties and thousands were injured with many people having lasting health problems<sup>349</sup>. During the attack, several government bodies were deployed to handle the crisis. Firstly, the Tokyo police forces were deployed to block access to affected subway stations<sup>350</sup>. Furthermore, the fire department was sent in to establish an emergency rescue quarter on-site, however, the fire department could not handle such a large number of injured people, which led them to request aid from the regional medical association<sup>351</sup>. Later on, the Japanese Self Defence Force, which was controlled by the Defence Agency, was deployed to decontaminate the affected subway stations and trains<sup>352</sup>.

### 12.1.2 Findings and lessons identified

Such an attack may also transpire in the future and may have more serious consequences/impact. Many capitals and cities have a vast subway system that may be used for such an attack. But other contexts may be applicable as well, such as a railway station, airport, and other sensitive transport infrastructure. In the future, it may be possible that such an attack occurs not on one infrastructural hub, but several, to minimize the effectiveness of the national CBRN response, as its CBRN defence resources will be stretched. In such a scenario, it is conceivable that the stricken nation will call upon international help. NATO possesses over CBRN defence capabilities and a mechanism to be requested for aid. The UN does not have specific CBRN defence units or capabilities, but the UN can ask for them through its framework. Furthermore, the UN can provide disaster relief and humanitarian aid after the site has been decontaminated. The UN and NATO can cooperate by communicating through the EADRCC and UNOCHA in order to split the tasks that each organisation will perform.

## 12.2 Explosion of chemical plant

### 12.2.1 Historical context: Jilin chemical factory explosion

In 2005 an explosion transpired at the chemical factory in the province of Jilin<sup>353</sup>. The explosion claimed 5 victims and 70 wounded<sup>354</sup>. Due to the fact that the chemical factory was situated near the Songhua River, around 100 tons of chemicals, such as benzene, nitrobenzene, and others, were spilled into the river<sup>355</sup>. This led to water pollution which resulted in environmental damages and affected the nearby population.

### 12.2.2 Findings and lessons identified

If such a scenario occurs again, a nation might call upon the UN and NATO for aid when its own capabilities could not handle such a crisis. International organisations, such as NATO and the UN, are even more likely to be involved in such a crisis, as opposed to the previous example, if the crisis would have an international dimension, for instance, if a chemical plant explodes and its chemical components spill into a river which flows into another nation. NATO and UN might be called for their expertise or for additional international aid through their framework.

<sup>348</sup> Reader, I. *Religious Violence in Contemporary Japan*, 2013, p. 23.

<sup>349</sup> Reader, I. *Religious Violence in Contemporary Japan*, 2013, p. 23.

<sup>350</sup> Okumura, T., Suzuki, K., Fukuda, A., Kohama, A., Takasu, N., Ishimatsu, S., & Hinohara, S. *The Tokyo Subway Sarin Attack: Disaster Management, Part 1: Community Emergency Response*, 1998, p. 615.

<sup>351</sup> Okumura, T., Suzuki, K., Fukuda, A., Kohama, A., Takasu, N., Ishimatsu, S., & Hinohara, S. *The Tokyo Subway Sarin Attack: Disaster Management, Part 1: Community Emergency Response*, 1998, p. 615.

<sup>352</sup> Okumura, T., Suzuki, K., Fukuda, A., Kohama, A., Takasu, N., Ishimatsu, S., & Hinohara, S. *The Tokyo Subway Sarin Attack: Disaster Management, Part 1: Community Emergency Response*, 1998, p. 615.

<sup>353</sup> Fu, W., Fu, H., Skøtt, K., & Yang, M. *Modeling the spill in the Songhua River after the explosion in the petrochemical plant in Jilin*, 2008, p. 178.

<sup>354</sup> Fu, W., Fu, H., Skøtt, K., & Yang, M. *Modeling the spill in the Songhua River after the explosion in the petrochemical plant in Jilin*, 2008, p. 178.

<sup>355</sup> Fu, W., Fu, H., Skøtt, K., & Yang, M. *Modeling the spill in the Songhua River after the explosion in the petrochemical plant in Jilin*, 2008, p. 178.

## 12.3 Chemical leak

### 12.3.1 Historical context: Bhopal Disaster

Historically, there have been cases of disastrous chemical gas leaks. The Bhopal gas leak disaster of 1984 serves as an example of this threat. The city of Bhopal hosted a chemical plant that started manufacturing the pesticide Sevin, using methyl isocyanate (MIC), in 1980<sup>356</sup>. There were several reasons which resulted in the gas leak such as faulty maintenance, ignoring of safety standards regarding the handling of MIC, failure of safety devices, and the ignoring of warnings about a possible gas leak<sup>357</sup>. Due to the fact that the chemical plant was situated next to poor neighbourhoods, those were the areas affected the most by the gas leak. During the gas leak, the gas spread through these poor neighbourhoods, killing, and injuring the citizens, polluting the water and the surroundings, and causing negative long-term health effects on the survivors<sup>358</sup>. It is estimated that the MIC gas leak resulted in the death of 20,000 people and the exposure of 200,000 people to the poisonous gas, which led to further health complications<sup>359</sup>. During the disaster, local actors such as the police forces were utilized, however, they did not have sufficient information on the situation, and not sufficient knowledge on the dangers of MIC gas, which led them to make the situation worse by giving faulty instructions<sup>360</sup>. The mismanagement and ineffective response led to one of the worst chemical disasters in history.

### 12.3.2 Findings and lessons identified

In such a future scenario a gas leak may be caused anytime and anywhere by an accident or deliberately. Depending on the scale of the leak and its severity, international aid might be requested to clean the area and aid the affected population. NATO and the UN are the primary international organisations that could be called upon if such a situation occurs.

## 12.4 Explosion of a nuclear power plant

### 12.4.1 Historical Context: Fukushima Nuclear Power Plant Explosion

In 2011 an earthquake near the coast of Japan resulted in a tsunami. The tsunami hit the Fukushima nuclear plant resulting in an explosion that was classified as a level 7 nuclear disaster<sup>361</sup>. The explosion resulted in the release and spread of radiological contamination into the atmosphere, ground, and sea<sup>362</sup>. Although several hundred people fell victim to the tsunami, no death is associated with radiation or contamination<sup>363</sup>. The first disaster response mission was to assess the damage and measure the radiation of the area<sup>364</sup>. However, the site was very dangerous for humans due to radiation, therefore, mobile exploration robots were utilized during the assessment mission<sup>365</sup>.

### 12.4.2 Findings and lessons identified

An explosion within a nuclear power plant is a high-impact event with expected long-term and possible international consequences. If such an event would occur, NATO and the UN might be called for aid in

<sup>356</sup> Varma, R., & Varma, D. R. The Bhopal Disaster of 1984, 2005, p. 37.

<sup>357</sup> Varma, R., & Varma, D. R. The Bhopal Disaster of 1984, 2005, pp. 40 & 41.

<sup>358</sup> Varma, R., & Varma, D. R. The Bhopal Disaster of 1984, 2005, pp. 39 & 43.

<sup>359</sup> Varma, R., & Varma, D. R. The Bhopal Disaster of 1984, 2005, p. 37.

<sup>360</sup> Varma, R., & Varma, D. R. The Bhopal Disaster of 1984, 2005, p. 42.

<sup>361</sup> Hayashi, M., & Hughes, L. The Fukushima nuclear accident and its effect on global energy security, 2013, p. 103.

<sup>362</sup> Guntzburger, Y., & C. Pauchant, T. Complexity and ethical crisis management, 2014, p. 381.

<sup>363</sup> Guntzburger, Y., & C. Pauchant, T. Complexity and ethical crisis management, 2014, p. 381.

<sup>364</sup> Nagatani, K., Kiribayashi, S., Okada, Y., Otake, K., Yoshida, K., Tadokoro, S., Nishimura, T., Yoshida, T., Koyanagi, E., Fukushima, M., Kawatsuma, S. Emergency response to the nuclear accident at the Fukushima Daiichi Nuclear Power Plants using mobile rescue robots, 2021, p. 3.

<sup>365</sup> Nagatani, K., Kiribayashi, S., Okada, Y., Otake, K., Yoshida, K., Tadokoro, S., Nishimura, T., Yoshida, T., Koyanagi, E., Fukushima, M., Kawatsuma, S. Emergency response to the nuclear accident at the Fukushima Daiichi Nuclear Power Plants using mobile rescue robots, 2021, p. 3.

order to help a stricken nation with various efforts such as, but not limited to, cleaning, monitoring, decontamination, sampling. In such a scenario, NATO and the UN could cooperate.

## 12.5 Pandemic

### 12.5.1 Historical context: COVID-19 Pandemic

As of the time of this study, COVID-19 claimed 5 million casualties and 255 million are confirmed to be infected worldwide<sup>366</sup>. As the healthcare services have partially been overburdened, some nations utilized their military for aid. During the pandemic, NATO created a dedicated COVID-19 Task Force, which helped with the response to the pandemic through “transporting medical aid and equipment across the globe, fighting against disinformation, and ultimately preventing the public health crisis from leading to a traditional security crisis”<sup>367</sup>. NATO commenced aid operations in several countries during the pandemic. In the Baltic States, NATO aided the delivery of medical equipment and transporting patients<sup>368</sup>. In Kosovo, NATO personnel aided the local population and authorities by distributing food and clothing donations during the pandemic<sup>369</sup>. In Afghanistan, NATO has set up two field hospitals at the airfields of Bagram and Kandahar as a response to the coronavirus<sup>370</sup>.

Several NATO member countries have also utilized their own CBRN defence capabilities to combat COVID-19 in their countries. These countries include, but are not limited to, France, Germany, Greece, Italy, Romania, Slovenia, the Czech Republic, the United Kingdom, and the United States of America<sup>371</sup>. Furthermore, through the framework of the EADRCC, the Czech Republic sent medical equipment to Italy to combat the coronavirus<sup>372</sup>. Additionally, the EADRCC and the UNOCHA have collaborated during the pandemic through joint coordination of assistance requests and offers<sup>373</sup>. For this, the staff number of the EADRCC was expanded to 30<sup>374</sup>. Examples of collaboration between the two organisations include “Germany sending ventilators to Spain; Spain sending facemasks to Iran; the United Kingdom transporting a field hospital for the WFP from Britain to Accra, Ghana; Italy receiving help from Albania, the United States, and Turkey (among others); and Norway donating a field hospital to North Macedonia”<sup>375</sup>. The formal cooperation between the two organisations commenced on the 5<sup>th</sup> of May 2020, with the request of UNOCHA towards the EADRCC for international assistance<sup>376</sup>.

### 12.5.2 Findings and lessons identified

Based on the events during the COVID-19 pandemic, it can be concluded that such an event might transpire again in the future. Although the pandemic is still ongoing, it is vital that nations should be prepared for such a scenario. International non-governmental organisations such as NATO and the UN will most likely also be involved and cooperate again as their aid has proven to be effective. This is due to the fact that the EADRCC provided vital networking solutions with the UN, and NATO itself provided a

<sup>366</sup> WHO Coronavirus (COVID-19) Dashboard, 2021.

<sup>367</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 2.

<sup>368</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 3.

<sup>369</sup> Coronavirus response: KFOR continues assistance to local communities in Kosovo, 2020.

<sup>370</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 3.

<sup>371</sup> Joint CBRN Defence COE - CBRN defence capabilities within the biological defence domain based on COVID-19 Lessons Learned (SARS-CoV-2 Response Report), 2021, pp. A-17 - A-21 & Pasquier et al., How do we fight COVID-19? Military medical actions in the war against the COVID-19 pandemic in France, 2020, p. 1.

<sup>372</sup> Joint CBRN Defence COE - CBRN defence capabilities within the biological defence domain based on COVID-19 Lessons Learned (SARS-CoV-2 Response Report), 2021, pp. A-16 & A-17.

<sup>373</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 5.

<sup>374</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 5.

<sup>375</sup> de Maio, G. NATO’s Response to COVID-19: Lessons for Resilience and Readiness, 2020, p. 5.

<sup>376</sup> EADRCC Situation Report #11, 2020, p. 2.



dedicated COVID-19 Task Force and successful airlift capabilities which might be utilized again in a potential future pandemic.

## 12.6 CBRN defence protection lay-out in support of international sports events

### 12.6.1 Historical context: Greece Olympics

During the Greek Olympic Games, NATO supported the Hellenic forces at the request of the Greek government<sup>377</sup>. At the time, the Greek government feared that a terrorist attack might occur during the Olympic Games<sup>378</sup>. The Greek government requested NATO CBRN defence support as the Greek military was missing adequate CBRN defence capabilities<sup>379</sup>. The Greeks possessed over 1 CBRN defence company at the time, whose equipment and training were limited<sup>380</sup>. Therefore, NATO covered both the Olympic and Paralympic games as first responders, ranging from the 2<sup>nd</sup> of August till the 30<sup>th</sup> of September 2004<sup>381</sup>. NATO's support for Greece consisted of the deployment of Airborne Warning and Control Systems (AWACS), maritime surveillance, deployment of CBRN defence elements on site to react to potential CBRN incidents, and improved intelligence sharing<sup>382</sup>. The CJ-CBRND-TF consisted of around 900 personnel at the time; however, only 210 personnel were sent to the Greece Olympics<sup>383</sup>. This number was based on the request of the Greek government<sup>384</sup>. 100 of the 210 personnel were Czech chemical detection specialists<sup>385</sup>. The whole CJ-CBRND-TF was stationed in Halkida, around 70 km from Athens<sup>386</sup>. This was the second deployment of the CJ-CBRND-TF in history, the first being during the Istanbul NATO Summit in June of 2004<sup>387</sup>. The mission statement was "mitigate the effects of a CBRN incident on the civilian population centres [sic] and/or Olympic Venue Sites"<sup>388</sup>. Brianas specifies that there were several tasks assigned to the CJ-CBRND-TF<sup>389</sup>:

- "Coordinate with local and civil defence agencies and establish contingency plans"
- "Establish an NBC Collection Center (NBC CC)"
- "Perform NBC surveillance"
- "Sample for CBR agents and perform lab analysis"
- "Perform personnel, vehicle and ground decontamination"
- "Execute station/site decontamination as needed"

37 venues in Athens as well as the territory of Heraklion was protected by the CJ-CBRND-TF<sup>390</sup>. Additionally, the EADRCC was also involved, in case of any disaster. Its mission included "civil emergency

<sup>377</sup> Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 1.

<sup>378</sup> Annex 19.

<sup>379</sup> Annex 22.

<sup>380</sup> Annex 22.

<sup>381</sup> Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 33.

<sup>382</sup> Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 33 & 34.

<sup>383</sup> Annex 22.

<sup>384</sup> Annex 22.

<sup>385</sup> Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 35 & 48.

<sup>386</sup> Annex 22.

<sup>387</sup> Annex 22.

<sup>388</sup> JFC Naples Factsheet, 2004, as cited in Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 35.

<sup>389</sup> Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 35 & annex 22.

<sup>390</sup> Annex 22.

planning, disaster relief and consequence management” with coordination performed by the Euro-Atlantic Disaster Response Coordination Centre (EADRCC)<sup>391</sup>.

### 12.6.2 Findings and lessons identified

The previous example shows that historically NATO can be involved in preventative CBRN crisis management during international sports events, even as first responders. Such a scenarios may occur again in the future. In the Greek Olympics scenario, the EADRCC was on site, and as the EADRCC is the main NATO communication hub with the UN, a possibility arises for collaboration between NATO and the UN in such a scenario. This may occur when a large-scale CBRN incident (be it man-made or based on a natural disaster) occurs, and the national capabilities will be overwhelmed. The UN might be requested to provide support for consequence management, while NATO might be involved in the CBRN defence response operations as first responders. The previous example show that NATO is in state to provide various forms of support during high visibility events such as providing first responders and other capabilities.

## 13 Identified challenges in NATO-UN cooperation

In this section, the differences that have been discovered from the research of the previous section, will be discussed. Furthermore, several staff members of NATO and the UN have been interviewed on this topic. On the NATO side, staff of the EADRCC, ACDC, CIMIC COE, Enablement and Resilience Section, and a NATO staff member involved in the Greece Olympics of 2004, were interviewed on the topic of CBRN crisis management and their views on NATO-UN CBRN defence cooperation. Additionally, an email exchange has taken place with a staff member from the CMDR COE on the same topics. On the UN side, staff members of UNOCHA and UNODA were interviewed also on the topic of CBRN crisis management and NATO-UN cooperation in CBRN crisis management from the perspective of the UN. The information gathered from these interviews is also incorporated in this part.

### 13.1 Identified challenge in response capabilities and guidelines between NATO and UN

One of the major challenges discovered during the research is the fact that NATO and UN differ in policy and capabilities regarding CBRN defence. NATO has several capabilities that it can offer if there is a need for CBRN defence support. The NRF and the CJ-CBRND-TF serve as examples, as these units can be deployed during CBRN incidents. However, the preparation time is relatively long. Individual NATO and PfP nations can also provide CBRN defence capabilities to other nations in need of such capabilities. The Czech CBRN defence troops during the Greece Olympics of 2004 serve as an example, as the provision of these troops was done under NATO framework. Moreover, NATO has created specific documents which deal with CBRN defence to provide NATO member countries with guidance during a CBRN incident, such as the AJP 3.8 (which was not used in this study due to its classification). Additionally, NATO member countries are part of a CBRN inventory, where the Nations state their CBRN defence capabilities that they would be willing to provide during a CBRN crisis<sup>392</sup>. However, the list has not been updated since 2017<sup>393</sup>. Lastly, NATO can rely on the knowledge generated by the Centers of Excellence. The JCBRN Defence COE, along with the CMDR COE, and the CIMIC COE provide high-level advice to the Alliance on the topic of crisis management and CBRN incidents.

<sup>391</sup> JFC Naples Factsheet, 2004, as cited in Brianas, J. J. NATO, Greece and the 2004 Summer Olympics, 2004, p. 35.

<sup>392</sup> Annex 15.

<sup>393</sup> Annex 15.

The UN can provide CBRN defence capabilities through its framework. However, based on publicly available information, it seems that the UN does not possess dedicated units specializing in CBRN incidents or doctrinal documents on the handling of CBRN incidents. The UN does possess over broad policies that deal with crisis management and disaster relief in natural but also man-made crises such as the Sendai Framework, and strategic level treaties dealing with the proliferation of CBRN weapons such as BWC.

### 13.2 Identified challenge in policies

Furthermore, another hindrance to effective cooperation may be the UN policy on impartiality. The UN must be perceived as impartial in the eyes of the international community, as this is the source of their legitimacy. Working with NATO may take away the credibility and impartiality of the UN during an operation or in the future as certain nations in the UN may have a negative view of NATO, as NATO might not be viewed as an impartial organisation. The cooperation between the two organisations may even get vetoed if the organisations want to cooperate in an area that is of political and strategic importance of a permanent Security Council member. Furthermore, the population of a stricken nation may not look keen on NATO-UN cooperation, which would prevent or discourage the population to cooperate with the UN. This is due to the fact that "...in many countries visible cooperation with NATO may taint the UN's reputation"<sup>394</sup>. However, outside of member countries, NATO is involved with a number of partner nations outside of NATO boundaries through several initiatives such as PfP, which can directly request assistance from the EADRCC, Istanbul Cooperation Initiative, Partners Across the Globe, and the Mediterranean Dialogue<sup>395</sup>. These partnerships can be seen on a map in figures 1, 6, and 7. Such partnerships may bypass the previously mentioned political sensitivities in several nations, and both organisations can therefore cooperate to alleviate a crisis in a stricken nation.

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<sup>394</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 165.

<sup>395</sup> Partnerships: projecting stability through cooperation, 2021.



Figure 6. NATO Partnerships around the globe. Retrieved from <https://slideplayer.com/slide/13050237/>



Figure 7. Partnership for Peace nations. Information retrieved from [https://www.nato.int/cps/en/natolive/topics\\_82584.htm](https://www.nato.int/cps/en/natolive/topics_82584.htm)

### 13.3 Identified challenge in hegemonic interests

Hegemonic interest can also hinder NATO-UN cooperation. Certain nations that are not NATO Members, but are UN Members, might try to block further cooperation attempts as these nations may not have a favourable view of NATO. These nations can possess over decision-making power in the UN, and they can try to hinder further cooperation. As one of the interviewees stated “... NATO agrees on fundamental issues. But those are not exactly in line with UN Charter. And UN Members are not the NATO Members and therefore, sometimes the cooperation between the UN and NATO is blocked by some UN countries”<sup>396</sup>. The previously mentioned example of the Joint Declaration on UN/NATO Secretariat Cooperation serves as an example of this challenge. This Declaration was delayed for three years due to internal UN opposition by powerful Member States.

### 13.4 Identified challenge in CIMIC doctrine

Another challenge in the mindset of the two organisations has to do with their civil-military cooperation doctrine. The UN, being a humanitarian organisation, focuses its assets on providing aid to civilians as its primary task. NATO on the other hand is mainly a military organisation. Civil-military cooperation is a tool for NATO troops to achieve their mission objective. Therefore, in this instant, the focus does not lie on the aid provided to the civilians, but on the civilians providing aid to NATO military forces so that they can achieve their objectives. AJP 3.19 states that “Military support to non-military actors and to the civil environment should only be conducted if it is required to create the conditions that support the accomplishment of the military mission”<sup>397</sup>. This is in opposition to the UN approach to civil-military cooperation, which even states that the use of military assets might need to be avoided in order to be perceived as impartial<sup>398</sup>.

### 13.5 Identified challenge in fields of operation

The UN and NATO focus on different fields of operations. While NATO is mostly a North American and European Alliance, the UN is a worldwide organisation. NATO does operate outside of Europe; however, the scale and goals of both organisations are different. This may cause challenges in cooperation. However, CBRN defence capabilities are limited around the world, and the CBRN defence capabilities of NATO can be useful outside of the boundaries of NATO. An example of this can be the previously discussed NATO-UN cooperation during the COVID-19 pandemic, as NATO airlift capabilities proved vital to transport relief aid or the cooperation in Jordan to improve its CBRN defence. Furthermore, although the main field of operation of NATO is North America and Europe, NATO does expand its influence and cooperation efforts to other parts of the world, such as the “Partners Across the Globe” which includes countries such as Japan, Colombia, and Afghanistan, and the Middle East through the “Istanbul Cooperation Initiative”<sup>399</sup>. However, fields of operation still pose a dilemma. As the NATO-UN cooperation on CBRN Preparedness in Jordan proves to be a success, the UN aims to expand CBRN Preparedness projects to other nations in the Middle East who are also NATO partners.

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<sup>396</sup> Annex 22.

<sup>397</sup> Allied Joint Doctrine for Civil-Military Cooperation (AJP)-3.19), 2018, p. 2-2.

<sup>398</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 18.

<sup>399</sup> Relations with partners across the globe, 2021. & Istanbul Cooperation Initiative (ICI), 2019.

### 13.6 Identified challenge in resource reliance

According to Harsch, organisations will not work together, or work less efficiently, if they are not reliant on each other's resources (be it physical resources like equipment and personnel, or non-physical resources like legitimacy)<sup>400</sup>. Although NATO can commence crisis management operations itself, as it possesses the legal mechanism for it, the UN is the primary crisis management actor which gives it legitimacy in this area. On the other hand, NATO can provide CBRN defence resources in form of expertise, personnel, and training. However, the crisis-stricken nations are expected to provide their own CBRN defence resources in the first place, and the UN can also ask for aid through its framework. This means that the UN will not always need NATO in case of CBRN incidents; however, outside of its bounds, it is very likely that a crisis-stricken nation will request support from the UN and not NATO which means that NATO would mostly rely on a support request from UNOCHA in order to be involved in such a crisis scenario. This results in an imbalance in reliance which might negatively influence cooperation.

### 13.7 Identified challenge in common language

There are certain terms that have a different meaning in both organisations. This may lead to miscommunication which is why the most prominent ones will be pointed out. The first one is the term "comprehensive approach". NATO uses the term comprehensive approach in a significant number of policies and other documents, however, the comprehensive approach does not, according to the CIMIC Handbook, have an objective definition<sup>401</sup>. The Handbook states that a "comprehensive approach can be understood as a concept, philosophy or mind-set rather than a documented process or capability"<sup>402</sup>. On the other hand, the UN uses the term "integrated approach" or "integrated mission" which is defined as "a peace support mission in which there is a shared vision among all United Nations actors as to the strategic objective of the United Nations presence at the country level."<sup>403</sup>. This definition specifies "peace support missions" which means that this approach is mostly applied in the context of conflict. The expectation of an integrated approach is "that a more coherent system-wide (security, governance and development) effort, will have a more relevant, effective, efficient and sustainable impact on the peace process"<sup>404</sup>. De Coning summarizes the UN integrated approach as:

"The Integrated Approach should thus be understood in a wider international context where coherence is being pursued at national level among government departments, and internationally among donors (harmonization), between donors and recipients (alignment), within the UN development, humanitarian and environment dimensions (system-wide coherence), and between the peace, security, human rights, humanitarian and development dimensions of the UN system at country level (Integrated Approach)"<sup>405</sup>.

The UN does include the military in non-conflict situations, but it does so through the framework of civil-military coordination, while NATO also uses the framework of the comprehensive approach during non-conflict situations.

<sup>400</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 27.

<sup>401</sup> CIMIC Handbook, 2020, par. 1.1.1.

<sup>402</sup> CIMIC Handbook, 2020, par. 1.1.1.

<sup>403</sup> UNTerm, n.d.

<sup>404</sup> de Coning, C. *The United Nations and the Comprehensive Approach*, 2008, p. 3.

<sup>405</sup> de Coning, C. *The United Nations and the Comprehensive Approach*, 2008, p. 12.

The second term is “information” which is defined by the UN as “meaningful data” while it is defined by NATO as “unprocessed data of every description which may be used in the production of intelligence”<sup>406</sup>. The reason that this might cause challenges will be explained in the next section.

### 13.8 Identified challenge in communication

As can be seen in the examples of Kosovo and Afghanistan, historically the information sharing between NATO and the UN has not always been adequate. In these examples, the explanation for this is the over-classification of information. The reason for this may be the difference in definitions of the term “information” used by both organisations. While the UN sees “information” as “meaningful data”, NATO sees information as unprocessed data that only becomes meaningful during the production of intelligence<sup>407</sup>. This means that when the UN requests information, that information is seen as intelligence in NATO, which can be classified. This may explain the view that NATO “overclassifies” information. Additionally, Harsch explains that international organisations “will try to avoid providing another entity with confidential information because it increases external scrutiny of their actions and impedes their operational flexibility”<sup>408</sup>.

As stated before, NATO shares information within a framework of a “domain system”<sup>409</sup>. It is expected that the main domain that will be utilized during CBRN crisis management operations will be the mission domain, which is stated as:

“Mission domain: this domain is established during a specific mission where NATO, as well as non-NATO entities cooperate. This means that the rules on communication and information security and exchange are created by all participants of such a mission. As the document states “a mission domain may be established independent of strict NATO policy in order to federate NATO CIS with CIS provided by partners, to include non-NATO entities, and to enable all partners in an operation to operate as equal peers”<sup>410</sup>.

This is due to the fact that CBRN crisis management operations are usually a single event with no need for a permanent NATO presence which means that this domain will most likely be utilized to cooperate with the UN. The document, therefore, states that “for NATO-led operations involving non-NATO entities, secure information and data sharing between coalition peers (i.e., NATO and non-NATO entities) involved in a mission should be provided by a separate mission domain - protected at whatever classification level is necessary to accomplish the mission”<sup>411</sup>. The document states that “to effectively share information, clearly understood rules and regulations on providing (posting), accessing (including classification and releasability), and distributing information should be established, emphasizing the security principle of “need-to-know”<sup>412</sup>. No standard agreement on the sharing of information, such ad hoc agreements during disaster missions, can cause over-classification of information due to subjective views on “clearly understood rules and regulations on providing, accessing, and distributing information” meaning that the sharing of information will be more complicated and less effective.

<sup>406</sup> UNTerm, n.d., & NATOTerm, 2015.

<sup>407</sup> UNTerm, n.d., & NATOTerm, 2015.

<sup>408</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 114.

<sup>409</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-20.

<sup>410</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-20.

<sup>411</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-22.

<sup>412</sup> Allied Joint Doctrine for Communication and Information Systems (AJP-6), 2017, p. 1-12.

### 13.9 Identified challenge in after-action reports

One of the issues identified is the lack of transparency and the flawed presentation of after-action reports by individual nations. It has been found that some nations, after a crisis management operation, would describe their effectiveness and operations during the crisis inaccurately to preserve a good image<sup>413</sup>. The reason for this is the fact that after-action reports are filled in internally without any oversight<sup>414</sup>. The Member States of both the UN and NATO might perform the after-action reports in this way, which would lead to skewed views on the effectiveness of current crisis management operations and flawed lessons might be drawn due to this issue. When it comes to UNOCHA and EADRCC themselves, both organisations have their own evaluation mechanism and reflections do take place after exercises and common operations, such as the COVID-19 airlift operation<sup>415</sup>. However, in the case of EADRCC, the after-action evaluation is often done in an informal manner<sup>416</sup>. This means that official evaluation documents are not always produced, an example of this is the COVID-19 airlift operation<sup>417</sup>. This can lead to challenges as the future staff of EADRCC might lack evaluation reports and documents on lessons-learned about certain crisis management operations as the evaluation was never documented. Knowledge and experience based on today's operations might be lost in the future due to the lack of documentation.

### 13.10 Identified challenge in communication entry points

One of the challenges that have been encountered by several bodies, such as the EADRCC and ACDC, is the necessity to seek communication channels with all involved UN bodies separately. Although the main communication point between the UN and NATO is UNOCHA, the EADRCC needs to contact and inform other bodies within the UN on its operations. However, due to the enormity of UN bodies and their different roles, it is in some cases difficult to know "who to talk to and in what case"<sup>418</sup>. UNOCHA does not distribute the information provided by the EADRCC to other UN bodies, the EADRCC has to do that on its own. The ACDC also experiences this challenge as it is difficult in some instances to find an entry point or the correct body to get in contact with during different situations<sup>419</sup>. It is also stated that once the entry point or contact point has been found "the cooperation is very good"<sup>420</sup>. Nevertheless, this situation creates a challenge as distributing vital information or to every UN body separately might lead to information delay and therefore, delayed decision making and response.

### 13.11 Identified challenge in practical exercise/cooperation

A further challenge that has been discovered pertains to the quantity of practical cooperation and exercises. The discussions on the political level are satisfactory, however, practical cooperation could be increased in the area of CBRN defence as "more of the practical cooperation would do us much better"<sup>421</sup>. The case of Jordan serves as a good example of practical cooperation between the UN and NATO which also has a positive impact on the host nation by increasing its resilience against terrorist CBRN attacks. NATO-UN cooperation during the COVID-19 pandemic also serves as a good example. However, the case of Jordan was the first-ever NATO-UN long-term project in the area of CBRN defence, which means that

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<sup>413</sup> Annex 12.

<sup>414</sup> Annex 12.

<sup>415</sup> Annex 15.

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<sup>419</sup> Annex 18.

<sup>420</sup> Annex 18.

<sup>421</sup> Annex 18.



CBRN defence practical cooperation is only beginning. An increase in this kind of cooperation, or if that is not possible, exercise, is sought after by some member countries of NATO.

### 13.12 Identified challenge in vertical coordination.

One of the challenges mentioned by a staff member of UNOCHA is the need to improve the vertical part of coordination. The coordination of individual areas like peace and security, development, and humanitarian operations are performed “very well”<sup>422</sup>. However, coordination between these aspects is lacking, and “that’s where the improvement should focus on”<sup>423</sup>. One of the reasons mentioned for this challenge is the centralized decision-making of some organisations or nations that are involved in the three previously mentioned areas<sup>424</sup>. This means that staff members from these organisations and nations cannot take swift, ad hoc decisions on the ground to make the coordination process swifter, as every decision process has to go through the operational headquarters of an involved organisation or nation.

## 14 Recommendations

In this section, several recommendations will be presented to enhance the cooperation between NATO and the UN. However, some issues that have been discovered in the identified challenges section are simply irresolvable, which may limit the cooperation between these two organisations. The identified challenges in policies and hegemonic interests present the biggest obstacles in this regard. Due to the nature of the UN, nations that have an unfavorable opinion of NATO could try to jeopardize the efforts of cooperation. An example of this is the Joint Declaration on UN/NATO Secretariat Cooperation, which was delayed by three years due to internal UN opposition. Furthermore, the UN is mainly a worldwide humanitarian organisation, while NATO is a defensive military Alliance. The mandates and objectives of these organisations differ and closer cooperation with NATO may hurt the image of impartiality of the UN. These issues pose a challenge that cannot be overcome due to the nature of the two organisations and may hinder further cooperation efforts. Nevertheless, there are several things that can be done to improve further cooperation in the area of CBRN crisis management. They will be laid out in this section.

### 14.1 Increased resource reliance

The main recommendation in this section is to increase the reliance of the UN on NATO in the realm of CBRN crisis management.

As discussed before, reliance increases the likelihood and effectiveness of cooperation. Every crisis management operation is different which means that reliance will vary. However, there have been cases where the UN and NATO were reliant on each other, which increased cooperation and the importance of NATO in an operation. A recent example is the previously discussed COVID-19 relief aid mission, where NATO, on the request of the UN, distributed medical relief equipment to several nations. The UN not possessing over sophisticated CBRN defence resources and specific CBRN defence guidelines creates an opportunity for NATO to step in and offer its capabilities, increasing the reliance on NATO in the meanwhile. This can be done through several methods such as joint training, joint policies on CBRN defence, but also joint operations where the cooperation between the UN and NATO in Jordan may serve as an example and precedent for future CBRN defence operations. What is important to point out is that the resource reliance between the two organisations must be balanced, as an overreliance or irrelevance

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<sup>422</sup> Annex 12.

<sup>423</sup> Annex 12.

<sup>424</sup> Annex 12.

due to lack of resources of the UN may lead to a perception that the autonomy of the organisations has been threatened. This may make the UN reluctant to cooperate. Additionally, if resource reliance is not balanced, NATO itself may come to the conclusion that cooperation with the UN is not necessary and thus refuse to cooperate as cooperation, and thus compromise, will reduce its operational autonomy. Such an occurrence of events may be prevented by nations that have been struck with a disaster and requested international support. The disaster-stricken nation could provide specific missions with comparable degrees of responsibility to NATO and the UN in order to create an environment where both organisations rely on each other for their respective tasks while minimizing conflict over responsibilities<sup>425</sup>. Such a situation can result in closer cooperation between both organisations, and thereby, more efficient crisis management.

As mentioned previously organisations often attempt to reduce cooperation to not endanger their autonomy, survival, or mission specific goal attainment<sup>426</sup>. This means that increasing the collaboration on a strategic level may be difficult, as both organisations are different and have different mandates, and both organisations may perceive their autonomy endangered if they need to adjust their policies and procedures to cooperate with each other. However, Harsch states that “collaboration on a single event implies a very limited loss of autonomy, while cooperation in more complex areas demand constant compromise and policy adjustment”<sup>427</sup>. Therefore, crisis management operations serve as a better cooperation theater rather than a long-term strategic commitment to cooperation. Previously discussed CBRN incidents in the scenario section, as well as certain historical crisis management operations such as in Pakistan, are an example of such “single events”.

Furthermore, it is recommended to identify new avenues of cooperation where both NATO and the UN could rely on each other’s assistance. The area of CBRN incidents and WMD non-proliferation might serve as an opportunity to enhance mutual cooperation.

Reliance on the resources, assistance, and capabilities of another organisation motivates an organisation to cooperate more closely, and in so doing, increases the quantity and quality of cooperation.

## 14.2 Common training and exercises

NATO-UN common training and exercises concerning CBRN incidents might serve as a solution to create better synergy between the two organisations in the area of CBRN defence.

NATO and the UN already cooperate in other areas. NATO already provides “specialist support in the development of military performance evaluation processes, medical care, countering improvised explosive devices, and signals and communications” to the UN in their “Action for Peacekeeping Initiative”<sup>428</sup>. This also includes training UN personnel by NATO experts. All of this is done from NATO’s Defence and Related Security Capacity Building (DCB) framework, which is an initiative that provides support to NATO partners based on their needs<sup>429</sup>. As previously mentioned, NATO already supports and trains the UN in some areas. To improve NATO-UN cooperation in CBRN incidents, it is advisable to extend this support and training to the area of CBRN defence. Wargaming with CBRN incident scenarios could be an example of CBRN defence joint training. The Sendai Framework mentions the promotion of “regular

<sup>425</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 164.

<sup>426</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 22.

<sup>427</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 124.

<sup>428</sup> NATO website. *NATO strengthens support for United Nations peacekeepers*, 2020.

<sup>429</sup> NATO website. *Defence and Related Security Capacity Building Initiative*, 2021.

disaster preparedness, response, and recovery exercises” which may serve as a justification of the UN to participate in such wargaming events and joint exercises<sup>430</sup>. The Crisis Management Exercises (CMX) of NATO as well as other applicable NATO exercises also serve as a good avenue for NATO-UN cooperation in crisis management exercises. It is advisable to continually implement the area of CBRN defence in the CMX and to invite UN liaison officers to observe and participate in them. It is also advisable to invite liaison officers of other relevant organisations, such as the EU. On the contrary UN disaster relief exercises can serve as an additional opportunity to invite NATO CBRN liaison officers or assets to enhance cooperation between the two organisations.

Additionally, it has been found that, overall, UNDAC members are not trained in the area of CBRN defence by the UN. One of the reasons for this is that the CBRN defence training offered to UNDAC members would have a timeframe that is considered too long for the UNDAC. The NATO accredited JCBRN Defence COE could potentially cooperate with the UN on the creation of a special CBRN defence training for UNDAC members that would have an acceptable timeframe for the UN.

### 14.3 Formalized and common after-action reports

It is recommended for NATO to formalize all after-action reports and for the UN to write the after-action reports in a collaborative sense in order to prevent a flawed representation of events. Both products should be embedded in a commonly developed lessons learned process.

It has been found that in some cases the after-action reports are not formalized but discussed between the UN and NATO in an informal manner. This brings risks as these events are discussed between the parties on an informal level that is based on trust and familiarity with each other. However, when, in the future new staff members will be rotated into the position of the old staff members, the new staff members will not possess some documents to refer back to for lessons learned. This means that the after-action reports should be strictly formalized and put in a database for future staff members to have access to that information.

It has also been discovered that after-action reports are in some instances inaccurately created by some participating nations<sup>431</sup>. This is because the after-action reports are written internally by the involved crisis management actors. Therefore, it is recommended to encourage the writing and the discussion of after-action reports in a collaborative sense, through the use of, for example, a discussion panel of all participants post-crisis.

### 14.4 Additional practical cooperation

It is recommended to expand the cooperation between the UN and NATO further into other areas of common interest. This is also applicable for CBRN and WMD proliferation-related threats.

Although the cooperation in regard to dialogue and communication is good, there is a desire to increase the practical aspect of cooperation between NATO and the UN. The case of Jordan is an excellent example of NATO-UN cooperation with positive benefits to the host nations. More of this sort of cooperation is highly desired by NATO personnel. Therefore, it is recommended to increase this type of cooperation wherever possible. However, it is very likely that more opportunities will arise for NATO-UN cooperation. According to an interviewee who has cooperated with the UN in Jordan, the UN is interested in replicating

<sup>430</sup> Sendai Framework for Disaster Risk Reduction 2015–2030, 2015, p. 21.

<sup>431</sup> Annex 12.

the project in Jordan to other nations in that region. Furthermore, it is recommended to involve more NATO bodies and COEs in the cooperation with the UN. One example is the CMDR COE. Although the CMDR COE possesses expertise in the area of crisis management and disaster response, the UN has not called upon the support of the CMDR COE in any way<sup>432</sup>. For additional NATO-UN cooperation, certainly in crisis management, it would be beneficial to expand this cooperation and for the UN to use its request for support mechanism more frequently. It is also advisable to include the JCBRN Defence COE in this endeavor as the COE possesses expertise in CBRN defence related matters.

#### 14.5 Additional funding and capabilities

It is recommended to provide additional funding to NATO bodies in order to improve the existing crisis management mechanism and support the expansion into other CBRN-related projects with the UN and the EU and harmonize all CBRN-related activities within the three organisations.

The previously mentioned increased cooperation between NATO and UN in the Middle East and other nations cannot continue for NATO without additional funding and capabilities, such as manpower. According to a representative of the Enablement and Resilience Section that was involved in the cooperation in Jordan, funding and additional manpower is vital to execute such a project. It is recommended to discuss what the exact funding and manpower requirements are according to representatives of involved NATO bodies and, based on their feedback, fulfil these requirements in order to continue NATO-UN cooperation in the build-up of CBRN defence capacity in interested nations. Furthermore, the initiative of the UN to start further CBRN defence projects in the Middle East, and its willingness to include NATO in this project, provides an opportunity for NATO to expand its reach and influence in the region. It is also recommended to expand the cooperation to other organisations such as the EU. The EU has already been involved in Jordan through its own CBRN Risk Mitigation CoE Initiative (CBRN CoE). Furthermore, just like the UN, the EU is also interested in operating the Middle East<sup>433</sup>. It is recommended to further involve the EU in future CBRN defence operations as the EU is also involved in the area of CBRN defence. In its "Communication from the Commission on the EU Security Union Strategy" terrorist CBRN threats are mentioned as a major concern<sup>434</sup>. Additionally, through its HORIZON Europe Framework, CBRN Action Plan, Permanent Structured Cooperation (PESCO), the EU is interested in improving the CBRN defence capabilities, including first responders<sup>435</sup>. The EU, with its expertise and additional funding, would make a valuable partner for improving CBRN defence.

It has also been discovered that the staff of the EADRCC has been gradually downscaled throughout the years as stated in chapter 5.1.1. Due to this, it is recommended to increase the manpower of the EADRCC and further discuss other support options with EADRCC representatives in order to improve its crisis coordination mechanism.

#### 14.6 Improving points of contact to the UN

It is recommended to improve the points of contact between NATO and the UN through additional liaison officers, a document provided to relevant NATO bodies and entities which states the basic information of every UN body and perform exercises to test the contact between NATO and the UN. Furthermore, it is

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<sup>432</sup> Annex 23.

<sup>433</sup> Annex 21.

<sup>434</sup> Communication from the Commission on the EU Security Union Strategy, 2020, p. 16.

<sup>435</sup> Enhanced situational awareness and preparedness of first responders and improved capacities to minimise time-to-react in urban areas in the case of CBRN-E-related events, n.d & Permanent Structured Cooperation (PESCO), n.d.

advisable to create a communication element in the CCOMC to the UN in order to exchange information on crisis management matters swifter.

The UN is a large organisation with a large number of bodies that have different responsibilities. One of the important identified challenges was the lack of centralized information sharing with the UN, which resulted in situations where NATO staff members did not know with which UN body to get in contact with to share information or cooperate. Therefore, it is recommended to expand the pool of liaison officers so that NATO staff members could get in contact with UN bodies swifter. It would also be recommended to create a widely accessible list of UN bodies with their main responsibilities and contact information that is regularly updated. This list should be provided to all NATO bodies. This way, all contact information to a specific UN body will be easily available for NATO staff, reducing the search time for NATO personnel. Furthermore, due to the duties being listed of respective UN bodies, NATO staff would have an easier time finding a specific UN organisation that specializes in a specific task.

Additionally, it is recommended to occasionally perform exercises in which NATO bodies would have to contact a specific UN body to observe how swift NATO bodies can get in contact with the UN bodies of interest and where challenges exist that complicate the contact between the two organisations. Lastly, the CCOMC is SHAPE's organisation for thinking, planning, and acting strategically and comprehensively in multiple crises and operations simultaneously. Therefore, it would be beneficial to have a permanent communication element in the CCOMC to the UN in order to discuss issues pertaining to crisis management in a swift manner. This would result in reduced communication time and therefore, improved crisis management.

#### 14.7 Improving vertical coordination

It is recommended to improve the coordination between different layers of crisis management.

As stated previously, one of the uncovered challenges is the need for improvement in vertical coordination in peace and security, development, and humanitarian aid which is caused by centralized decision-making systems of organisations and nations which prevents the different layers of crisis management from coordinating efficiently<sup>436</sup>. This challenge cannot be entirely solved on an international level due to the different systems involved in national and organisational crisis response. However, it is recommended to improve the coordination between the different layers that are involved in crisis management through workshops and conferences, where the staff members of these layers discuss the encountered challenges in coordination. Furthermore, additional research is recommended into this topic, in order to improve coordination on the vertical level.

#### 14.8 Updating the CBRN inventory

It is recommended to update the CBRN inventory of NATO in order to be aware of relevant and applicable CBRN defence capabilities able to cope with CBRN incidents and WMD non-proliferation in cooperation with the UN.

As stated by a staff member of the EADRCC, a CBRN inventory of NATO member countries exists, within which nations state their CBRN defence capabilities that could be utilized in times of a CBRN crisis. The CBRN defence capabilities are provided by nations on a consensual basis, meaning that they are not obligated to provide any, or all, of their CBRN defence capabilities on the list. The inventory, however,

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<sup>436</sup> Annex 12.

“has not been updated for a while”, specifically, since 2017<sup>437</sup>. It is vital to keep the inventory updated to have clear information on the CBRN defence capabilities that member countries could provide during a CBRN incident. This is also important in the case of NATO-UN cooperation during potential CBRN crises, as having an updated inventory list with CBRN defence capabilities that nations are willing to provide would be very beneficial during CBRN crisis management. It is therefore recommended to update this inventory. It is also recommended to involve the JCBRN Defence COE in this process as the Centre of Excellence possesses expertise in this area, which it can use to provide advice on this matter.

#### 14.9 Reviewing documents and doctrines with particular attention to common language

It is recommended to be conscious of the differences in terminology within the UN and NATO, and in the future, review and write new documents, especially documents pertaining to the area of CBRN, with a harmonized common language (referring to terminology and definitions) in mind.

It has been found that the terminology and definitions used by both organisations differ in certain aspects. This may influence the communication between both organisations in a negative way. Therefore, it is recommended to review, rewrite, and write new documents in the future with this aspect in mind in order to prevent the differences in language from affecting the cooperation between NATO and the UN negatively. Furthermore, it is recommended for a common set of CBRN-related language (definitions and terminology) to be implemented in the UN, NATO, and the EU.

#### 14.10 Updating the information sharing practices of NATO and the UN

It is recommended for the UN to review its process of handling the information that it receives from NATO and improving its classification mechanism. Furthermore, it is advisable for NATO to utilize information releasable to the UN in order to avoid challenges related to information exchange.

It has been discovered that the information sharing practices between the UN and NATO are in need of improvement. It has been found that NATO is reluctant to share its information with the UN as NATO member countries fear that the information they provide might leak out. Therefore, it is recommended for the UN to review and improve its information classification system in order to alleviate this challenge. Furthermore, NATO has been found to overclassify its information, which may impact future crisis management cooperation with partners such as the UN negatively. It is therefore recommended to mostly operate on information releasable to the UN and to review the current classification mechanism of NATO to overcome the hindrance of information sharing.

#### 14.11 Comprehensively preparing for future CBRN scenarios

It is recommended for the UN and NATO to analyze historical CBRN incidents, to identify options for future NATO-UN cooperation in CBRN incidents and for plans to be prepared. Chapter 12 serves as an example of a historical analysis of CBRN incidents. Other relevant actors, such as the EU should be included. For this, it is advisable to create a common CBRN incident lesson learned mechanism with the UN and other relevant CBRN crisis management actors, like the EU, to be prepared to better cope with future CBRN incidents.

Based on the historical examples that were discussed in chapter 12, it can be concluded that CBRN incidents remain a threat with potentially severe consequences. It can be expected that more CBRN incidents will occur in the future. On the one hand, scenarios that affect the international dimension and

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<sup>437</sup> Annex 15.

have a long-term impact such as a nuclear powerplant disaster or a pandemic, and on the other hand scenarios with NATO CBRN defence capabilities deployed during high visibility events (see chapter 12.6) could be of particular importance. In such scenarios, it is very probable that the UN and NATO will be requested by a stricken nation to alleviate the crisis. It is therefore likely that NATO and the UN will encounter each other during future CBRN incidents. So, it is recommended to make adequate preparations for future cooperation through common CBRN exercises, creation of policies, and creating crisis management plans while taking into account the capacity and capabilities of both organisations. An additional way to prepare for future CBRN incidents is to create a common CBRN-incident lessons learned mechanism between NATO and the UN. Analyzing previous CBRN disasters and identifying challenges in their crisis management process can highlight potential shortcomings which could be avoided in the future. NATO has a sophisticated lessons learned process (incidents and Exercises) which can be used as a basis for a common NATO-UN lessons learned mechanism. Additionally, the JCBRN Defence COE could provide lessons learned expertise on CBRN matters. Lastly, it is advisable to expand the above-mentioned cooperation approaches to other relevant CBRN crisis management actors such as the EU, in order to create a comprehensive approach to CBRN crisis management.

#### 14.12 Identifying new opportunities for cooperation in areas of common interest

It is recommended to identify new areas of cooperation with the UN in areas of common interest. Large-scale CBRN incidents might serve as an example of such an area of common interest.

As stated in chapter 13.3, internal UN opposition may hinder closer cooperation between the UN and NATO. It may be beneficial to find areas of cooperation that are not politically sensitive in order to convince the internal opposition in the UN of NATO's neutral intentions. An example of such an area of cooperation might be to cope with especially large-scale CBRN incidents as this might be in the interest of all UN Members. NATO has the capacity and capabilities to provide support to the UN in various ways which means that new areas of cooperation could also be identified. It would also be beneficial to get in contact with internal UN actors that oppose closer NATO-UN cooperation and identify the reason for their opposition, as well as the means to convince them that closer NATO-UN cooperation would be beneficial.

#### 14.13 Identifying cooperation situations in CIMIC and UN-CMCoord

It is recommended to identify the main differences between NATO CIMIC and UN-CMCoord and identify situations where both doctrines can complement each other.

It has been identified that the NATO CIMIC and UN-CMCoord have some doctrinal differences. However, these doctrinal differences might be more prevalent in some contexts than others. Therefore, it would be beneficial to review the doctrines in the future and identify specific situations where both the CIMIC and UN-CMCoord could complement each other. It would also be beneficial to identify areas where both doctrines would encounter difficulty with cooperating. This would prepare the staff of both NATO and the UN for situations where their doctrines are incompatible.

## 15 Further research

On September the 22<sup>nd</sup> 2021 NATO and UN Secretary Generals have met in New York during the 76th Session of the United Nations General Assembly. Topics such as international peace and security, deeper cooperation, and counterterrorism were discussed<sup>438</sup>. One of the mentioned priorities was civil protection. This is an important part of crisis management planning as “civil protection education increases national resilience and survivability of individuals”<sup>439</sup>. Both the UN and NATO have their civil protection doctrines, but they differ in certain aspects as “their emphasis on protection departs fundamentally from very different starting points”<sup>440</sup>. Because of this, it is advisable that the concept of civil protection, focused on CBRN-related issues, in NATO, the UN, the EU, and other CBRN and WMD non-proliferation relevant organisations should be analyzed further.

Furthermore, as stated in recommendation 14.7, vertical coordination between different areas of crisis management form a challenge. It would be beneficial to discover the reasons for the challenges that are encountered in this vertical cooperation. Therefore, it is advisable to conduct further research into this topic in order to improve vertical coordination in crisis management, thereby improving crisis management in a comprehensive manner.

Additionally, although mentioned, this study did not focus on WMD non-proliferation matters. However, it is advisable to conduct further research into this topic in order to analyze the approaches of different actors pertaining to WMD non-proliferation and improving its mechanisms.

Lastly, as this research is focused on NATO-UN CBRN defence cooperation, it also strives to touch upon EU cooperation in the area of CBRN defence. Therefore, it might be beneficial to analyze all three organisations in their CBRN defence related entities, activities, and mechanisms to cope with CBRN incidents. A comprehensive review on CBRN defence capabilities, doctrines, terminology, training and exercises, research projects formats, horizon scanning of areas of common interests might be an additional research project built upon this study as well as JCBRN Defence COEs previous studies on Civil-Military Interaction and NATO-EU cooperation in the area of CBRN defence.

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<sup>438</sup> NATO website. NATO Secretary General meets with UN Secretary-General in New York, 2021

<sup>439</sup> Inform implementation of comprehensive civil-military CBRN defence capabilities discovery experiment. Final Experimentation Report, 2021, p. 20.

<sup>440</sup> Beadle, A.W. Protection of civilians in theory – a comparison of UN and Nato approaches, 2010, p. 13.



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## Annex 2 USAR Teams additional information

The specifications of the USAR teams<sup>441</sup>:

1. Light USAR teams which are deployed during operations that deal with “collapsed or failed structures of wood and/or unreinforced masonry construction, including structures reinforced with steel mesh”. Furthermore, the light teams must be able to conduct rigging and lifting operations. The teams can be operating on one worksite for one work period (12 hours a day for 5 days).
2. Medium USAR teams should be able to conduct “complex technical search and rescue operations in collapsed or failed structures of Heavy wood and/or reinforced masonry construction, including structures reinforced and/or built with structural steel”. The teams are also required to perform rigging and lifting operations and be operational at only one site.
3. Heavy USAR teams are deployed during “complex technical search and rescue operations in collapsed or failed structures, particularly those involving structures reinforced and/or built with structural steel”. These teams are also required to perform rigging and lifting operations and they possess enough equipment and manpower to work at two sites simultaneously.

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<sup>441</sup> INSARAG Guidelines, 2020, pp. 28 & 29.

## Annex 3 Bosnia Operations

NATO was initially tasked with peacekeeping operations such as “monitoring ceasefires and withdrawal of forces; supervising disarmament and control of weapons; supervising disarmament and control of weapons”; however, when the Serbs started targeting civilians with artillery and aircraft, most notably on the Sarajevo marketplace, the UN allowed for close air support to be utilized against the Bosniak Serbs to relieve the city<sup>442</sup>. However, NATO could not do any more as it did not have the mandate from the UN Security Council, which resulted in frustration on NATO side<sup>443</sup>. Many of the airstrikes had to be approved by the UN, whose procedure was slow. This led to situations where NATO received an approval for an airstrike, even though the situation on the ground has drastically changed, making the approved airstrike no longer useful<sup>444</sup>. This situation continued throughout the conflict in Bosnia, and it led to a strained relationship between the UN and NATO. NATO challenged the UN and declared that military decisions, such as airstrikes, are theirs to make, not the UN’s<sup>445</sup>. A decision was made to transfer the airstrike approval process to a lower level of command, which shortened the decision-making time and improved NATO-UN cooperation<sup>446</sup>. In 1995 the Bosnian Serbs shelled a Sarajevo marketplace, killing 38 people<sup>447</sup>. This led NATO into military action, known as operation Deliberate Force, as retaliation with a reluctant approval from the UN<sup>448</sup>. Later in 1995, the Dayton Peace Accords have been reached, which ended the conflict in Bosnia.

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<sup>442</sup>Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, pp. 145 & 146 & Nicholls, D. V. Bosnia: Un and NATO, 1996, p. 34.

<sup>443</sup> Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, p. 145.

<sup>444</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 43.

<sup>445</sup> Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, p. 145.

<sup>446</sup> Harsch, M. F. The Power of Dependence: NATO-UN Cooperation in Crisis Management (1st ed.), 2015, p. 50.

<sup>447</sup> Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, p. 154.

<sup>448</sup> Kaplan, L. S. NATO and the UN: A Peculiar Relationship (First ed.), 2010, p. 154.

## Annex 4 Conflict in Kosovo

The Serbs began displacing the Kosovar Albanian population through brutal means<sup>449</sup>. This led to the creation of the Democratic League of Kosovo (DLK), and later the more radical Kosovar Liberation Army (KLA) which fought against the Serbians<sup>450</sup>. NATO and UN were preoccupied with Bosnia which meant they did not pay attention to what was happening in Kosovo until after the Dayton Accord<sup>451</sup>. In 1998 the UN Security Council voted for Resolutions 1160 and 1199 which called for an arms embargo against Yugoslavia; however, neither resolution was respected<sup>452</sup>. NATO's answer to this was to promise military advice that supported the UN and the Organization for Security and Co-operation in Europe (OSCE) monitoring efforts of the situation in Kosovo and send NATO preventative deployments to Kosovo neighbour countries, such as Macedonia and Albania in order to contain the instability in Kosovo. The pressure on Serbia to comply with the resolutions was mounting to the point where Italy and Germany joined "other allies in seeing the UN Resolutions 1160 and 1199 as the authority for NATO preparations for war, if not for war itself"<sup>453</sup>. The UN Security Council could not authorize military intervention. This was due to the belief that Russia, along with China, would veto the proposition to intervene in the Kosovo theatre<sup>454</sup>. After the discovery of 45 massacred Kosovar Albanians in Kosovo, the public and political opinion in the west changed in favour of an intervention<sup>455</sup>. Although there was no authorization from the UN for the initiation of armed conflict, the UN did endorse the creation of the Kosovo Force (KFOR)<sup>456</sup>. The Serbs were not dissuaded by these UN-NATO endeavors and doubled down on their ethnic cleansing efforts in Kosovo<sup>457</sup>. This led to NATO's decision for military action in form of an air assault, without the approval of the UN, as the Security Council was blocked by China and Russia<sup>458</sup>. This military action was defended by pointing out that Yugoslavia did not honour Resolution 1199, the Council accepted this reasoning. An air campaign was launched with the aim to change the behaviour of the Serbian forces, however, separating Kosovo from Serbia was not a stated objective<sup>459</sup>. After the Serbs withdrew from Kosovo, NATO member countries supported the UN Security Council resolution that would charge the UN with demobilization efforts through the KFOR and the protection of refugees, thereby giving the UN primacy in post-conflict peace-keeping. As Kaplan says "The UN did not authorize the war, but NATO nevertheless tried at every opportunity to assure the world of its conformity to UN principles"<sup>460</sup>.

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<sup>449</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 171.

<sup>450</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 170.

<sup>451</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 171.

<sup>452</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 173.

<sup>453</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 175.

<sup>454</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, pp. 168 & 176.

<sup>455</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 176.

<sup>456</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 178.

<sup>457</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 178.

<sup>458</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 179.

<sup>459</sup> Gallis, P.E. *Kosovo: Lessons Learned from Operation 'Allied Force'*, 1999, p. 5.

<sup>460</sup> Kaplan, L. S. *NATO and the UN: A Peculiar Relationship* (First ed.), 2010, p. 179.

## Annex 5 Additional information on Afghanistan

### Afghanistan

The conflict in Afghanistan, under the name Operation Enduring Freedom, commenced on September the 7<sup>th</sup> 2001<sup>461</sup>. After the defeat of the Taliban government in December of 2001, NATO's International Security Assistance Force (ISAF) assumed command in 2003<sup>462</sup>. The mission in Afghanistan was initially very loosely coordinated with other national and international stakeholders. Stakeholders such as NATO itself, the EU, the UN, and local government and civilian actors cooperated rarely or not at all on a wide range of issues. This led to an environment where "random networks" were present, and no centralization and synchronization of these networks between these stakeholders was taking place<sup>463</sup>. To remedy this, NATO began to work more closely with international actors. International organisations such as the UN, the EU, and the World Bank were invited to NATO Headquarters in Brussels in order to express their views during ambassadorial and ministerial meetings which, in turn, enhanced cooperation<sup>464</sup>. Furthermore, the Provincial Reconstruction Teams (PRT) have been established, which were a mix of military, civilian, and political personnel<sup>465</sup>. The objectives of these teams were to "extend the reach of the central government, enhance security through security sector reform and reconstruction"<sup>466</sup>. This was needed as the PRT's brought international influence to the remote parts of Afghanistan, such as villages<sup>467</sup>.

### Challenges with a comprehensive approach in Afghanistan

The use of a comprehensive approach in Afghanistan has seen some criticism. The PRT's, for example, were said to have a vague mission, roles, and not enough resources for their objectives<sup>468</sup>. The civil and military cooperation proved difficult in some instances. Furthermore, cooperation with certain international organisations was inadequate. NATO – EU police training may serve as an example, as both organisations had their own police training programmes in Afghanistan, but they were not coordinated. NATO – UN cooperation was lacking as the UN did not deem Afghanistan a priority. Lastly, Steinsson mentions that "Despite optimism for greater coordination, the CA only energized those into action that wanted greater civil-military integration and coordination, while leaving those that were more comfortable with the status quo continuing in their settled ways"<sup>469</sup>.

<sup>461</sup> Berdal, Mats. *A Mission Too Far? NATO and Afghanistan, 2001-2014*, 2016, p. 160.

<sup>462</sup> Berdal, Mats. *A Mission Too Far? NATO and Afghanistan, 2001-2014*, 2016, p. 159.

<sup>463</sup> Steinsson, S. *NATO's Comprehensive Approach in Afghanistan: Origins, Development, and Outcome*, 2015, p. 1.

<sup>464</sup> Kobieracki, A. *The Comprehensive Approach: NATO Responses from an Operational Standpoint – The Case of Afghanistan*, 2007, p. 89.

<sup>465</sup> Steinsson, S. *NATO's Comprehensive Approach in Afghanistan: Origins, Development, and Outcome*, 2015, p. 3.

<sup>466</sup> Steinsson, S. *NATO's Comprehensive Approach in Afghanistan: Origins, Development, and Outcome*, 2015, p. 1.

<sup>467</sup> Kobieracki, A. *The Comprehensive Approach: NATO Responses from an Operational Standpoint – The Case of Afghanistan*, 2007, p. 89.

<sup>468</sup> Steinsson, S. *NATO's Comprehensive Approach in Afghanistan: Origins, Development, and Outcome*, 2015, p. 3.

<sup>469</sup> Steinsson, S. *NATO's Comprehensive Approach in Afghanistan: Origins, Development, and Outcome*, 2015, p. 3.

### NATO-UN cooperation in Afghanistan

After 2003 there were difficulties pertaining to UN-NATO cooperation. The UN Assistance Mission to Afghanistan was created around the same time as the ISAF<sup>470</sup>. However, the United Nations Assistance Mission in Afghanistan (UNAMA) was very reluctant to cooperate with NATO as “The UN needed to work with NATO, but at the same time, there were several voices within the organization that kept saying that the UN could not get close to NATO since the UN was a civilian organisation and NATO was a military one”<sup>471</sup>. Additionally, Harsch explains that both organisations did not have a joint mission statement as they did in Bosnia and Kosovo, which lead to a perception that the organisations do not require each other’s resources to operate effectively<sup>472</sup>. There was some effective cooperation between NATO and the UN at the operational side, but there was a lack of cooperation at the strategic level<sup>473</sup>. Moreover, the UN strategic level actively criticized UN operatives that tried to enhance the cooperation with NATO<sup>474</sup>. NATO tried to enhance the cooperation with the UN, yet the UN declined any form of cooperation as it found that NATO “was a regional security organization, whereas the UN was international”<sup>475</sup>. If NATO wanted to work with the UN, it needed to go through its internal bureaucracy, such as the UN Department for Peace-Keeping Operations (UNDPKO).

The information exchange between NATO and the UN was also problematic. This was mainly because the UN believed that NATO’s information policy was not sufficient<sup>476</sup>. There was no formal agreement between the two organisations on information exchange, however, NATO itself was very hesitant and unwilling to even share information such as weather forecasts and flood contingency plans with the UN as much of its information was classified<sup>477</sup>. Situations such as these point to over-classification of information, which strained the cooperation between the two organisations. Lastly, the Secretary General of the UN outlined ten priorities of the UN while the UN was active in Afghanistan and Afghanistan was not among these them<sup>478</sup>. This has led to frustration on NATO side as it seemed that the UN was not fully invested, at least strategically, in the Afghanistan operation.

However, there were parts where NATO and the UN did cooperate successfully. One prominent example is the Afghan elections. NATO provided back-up to the Afghan military forces during the elections for security purposes, while the UN oversaw the elections and provided legitimacy to the process<sup>479</sup>.

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<sup>470</sup> Oertel, J. *The United Nations and NATO*, 2008, p. 5.

<sup>471</sup> Williams, M.J. *The Good War*, 2011, p. 98.

<sup>472</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 113.

<sup>473</sup> Williams, M.J. *The Good War*, 2011, p. 98.

<sup>474</sup> Williams, M.J. *The Good War*, 2011, p. 98.

<sup>475</sup> Williams, M.J. *The Good War*, 2011, p. 98.

<sup>476</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 114.

<sup>477</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 114.

<sup>478</sup> Williams, M.J. *The Good War*, 2011, p. 98.

<sup>479</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 122.

## Annex 6 EADRCC disaster operations

Year	Disaster
1998	Floods, Ukraine
1999	Landslides, Moldova; Earthquake, Azerbaijan; Earthquakes 1&2, Turkey
2000	Floods, Hungary and Romania; Drought, Georgia; Extreme weather, Ukraine and Moldova; Forest fires, the former Yugoslav Republic of Macedonia*
2001	Floods, Ukraine
2002	Floods in Central Europe
2003	Forest fires, Portugal
2004/05	Tsunami, SE Asia
2005	Floods Georgia, Romania, Bulgaria, Kyrgyzstan
2005	Hurricane Katrina
2005/06	Earthquake, Pakistan
2006	Floods, Algeria; Snowfall, Kyrgyzstan; Floods, Slovak Republic; Floods; Bulgaria; Fires, Georgia
2007	Forest fires, Albania, Bulgaria, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia*
2008	Floods, Moldova and Ukraine; Forest fires, Bulgaria; Earthquake, Kyrgyzstan
2009	Floods, Tajikistan; Earthquake, Georgia; Pandemic Flu, Ukraine, Bulgaria
2010	Floods, Albania
2010	Pakistan 2010 Monsoon Floods
2011	Tech. disaster, Ukraine; Earthquake Turkey; Floods, Pakistan
2012	Severe snowfall, Montenegro, Albania
2012 /14	Influx of Syrian Refugees, Turkey, Jordan
2013	Forest fires, Bosnia and Herzegovina
2014	Floods Bosnia and Herzegovina; Outbreak of Ebola in West Africa; Iraq IDPs
2015	Floods in Albania; Influx of refugees in Serbia
2016	Forest and wild fires, Israel
2017	Forest fires, Georgia, Montenegro; Hurricane Harvey, US; Floods, Albania

List of disasters that the EADRCC has been dealing with. Retrieved from "NATO's Involvement in Humanitarian Operations/Disaster Response" by A. Jacuch, 2017, October.

<https://www.semanticscholar.org/paper/NATO%E2%80%99S-INVOLVEMENT-IN-HUMANITARIAN-RESPONSE-Jacuch/f0f56338e9638792af6831205107a6ed2c722d82>

## Annex 7 EADRCC exercises

Year	Exercise
2000	Trans-Carpathian, Ukraine, Flood scenario
2002	Taming the Dragon – Dalmatia 2002, Croatia, Wild fire scenario
2002	Bogorodsk 2002, Russia, Terrorist initiated chemical incident
2003	Ferghana 2003, Uzbekistan, Earthquake, floods, mud slides and chemical incident
2003	Dacia 2003, Romania, Radiological Dispersion Device (“Dirty Bomb”)
2005	Joint Assistance 2005, Ukraine, Chemical Weapon
2006	Lazio 2006, Italy, Joint NRC / EADRCC exercise, „Dirty Bomb“
2007	Idassa 2007, Croatia, Earthquake, chemical & biological incidents
2008	Uusimaa 2008, Finland, Floods, CBR incidents
2009	Zhetysu 2009, Kazakhstan, Earthquake, chemical incidents
2010	Armenia 2010, Armenia, Earthquake, chemical & radiological incidents
2010	Izmir 2010, Turkey, Regional Urban Search and Rescue exercise
2011	Codrii 2011, Moldova, Earthquake, water rescue, chemical & radiological incidents
2012	Georgia 2012, Georgia, Earthquake, water rescue, chemical & radiological incidents
2015	EADRCC consequence management field exercise in Ukraine
2016	EADRCC “Digital exercise and seminar on civil-military cooperation in health disaster response”
2016	Consequence Management Exercise “CRNA GORA – 2016”
2017	Consequence management field exercise “BOSNA & HERCEGOVINA 2017”

EADRCC exercises. Retrieved from “NATO’s Involvement in Humanitarian Operations/Disaster Response” by A. Jacuch, 2017, October. <https://www.semanticscholar.org/paper/NATO%E2%80%99S-INVOLVEMENT-IN-HUMANITARIAN-RESPONSE-Jacuch/f0f56338e9638792af6831205107a6ed2c722d82>



## Annex 8 UN types of sensitive information

Retrieved from *ST/SGB/2007/6 Secretary-General's bulletin Information sensitivity, classification and handling*.

"1.2 Information deemed sensitive shall include the following:

- (a) Documents created by the United Nations, received from or sent to third parties, under an expectation of confidentiality;
- (b) Documents whose disclosure is likely to endanger the safety or security of any individual, violate his or her rights or invade his or her privacy;
- (c) Documents whose disclosure is likely to endanger the security of Member States or prejudice the security or proper conduct of any operation or activity of the United Nations, including any of its peacekeeping operations;
- (d) Documents covered by legal privilege or related to internal investigations;
- (e) Internal inter-office or intra-office documents, including draft documents, if disclosure would undermine the Organization's free and independent decision-making process;
- (f) Documents containing commercial information, if disclosure would harm either the financial interests of the United Nations or those of other parties involved;
- (g) Other kinds of information, which because of their content or the circumstances of their creation or communication must be deemed confidential".

## Annex 9 CIMIC crisis management five main areas

*Retrieved from AJP 3.19, 2018, pp. 3-11, 2-12 & 3-13.*

- **Military contribution to peace support** includes diplomatic, civil, and military means in order to restore peace with the adherence to the UN Charter. The CIMIC element consists of the cooperation between the military and national police forces as well as civilians to ensure sustainable peace.
- **Non-combatant evacuation operations** constitute NATO in a supportive role during national diplomatic operations. The aim of these operations is to relocate the non-combatant to a safe location. However, NATO's main responsibility is supporting the national forces in these operations.
- **Military contribution to humanitarian assistance** is intended to support a nation's national government in crisis response operations. Other international and non-governmental organisations also play a role. The UNOCHA plays a crucial role in crisis management coordination in order to "protect and promote humanitarian principles, avoid competition, minimize inconsistency, and, when appropriate, pursue common goals".
- **Countering irregular activities** includes the use of force by individuals or groups who are motivated by ideology or criminal incentives. These activities fall under counterinsurgency, counter-terrorism, and counter-criminality, counterinsurgency being the most relevant for CIMIC.
- **Military contribution to stabilization** entails post-disaster stabilization and reconstruction efforts in unstable states to prevent complex problems. These efforts should preferably be led by local authorities under civilian leadership.

## Annex 10 UN main bodies

- **UN Office for the Coordination of Humanitarian Affairs:** UNOCHA coordinates the global crisis response, drafts policies to create a standardized approach to humanitarian issues, advocates on behalf of disaster-affected people, gathers, analyzes, and distributes information about the crisis among partners, and manages finances for humanitarian missions<sup>480</sup>.
- **The World Food Programme:** The WFP serves as the global logistics cluster and manages the logistical side of humanitarian missions. These logistical operations require a civil-military logistics liaison officer and a dialogue with the military and other armed forces if necessary<sup>481</sup>.
- **UN High Commissioner for Refugees:** The UNHCR provides protection and provides humanitarian aid to people in “refugee-like” situations, such as internally displaced persons, asylum seekers, returnees, and stateless people<sup>482</sup>.
- **The United Nations Children’s Fund:** The UNICEF advocates for the protection of children’s rights, aid them in their basic needs, and create opportunities for them<sup>483</sup>.
- **The World Health Organization (WHO):** The WHO’s aim is to combat diseases and enhance general health through providing leadership in health matters and shaping the research agenda. If a health emergency occurs and the support of the military is needed, the UN-CMCoord officer may ask the WHO for advice<sup>484</sup>.

All these bodies can cooperate with military actors. The military actors can assist them in three ways, direct assistance, indirect assistance, and infrastructure support. Direct assistance entails physical help on-site with the distribution of relief aid, first aid, locating families, etc. Indirect help entails the transport of relief aid, building accommodation (camps) for the population, providing water sources, etc. Infrastructure support entails the repair of infrastructure, operating airfields, providing access to communication networks, etc.<sup>485</sup>.

When it comes to the sharing of information, there is generally no limitation on the information that can be shared. Examples of information that could be shared between humanitarian organisations and the military are the presence, capability, and assets of military forces, the requirements of military support to the humanitarian aid, relief activities undertaken by the military actors, humanitarian assessment data, humanitarian activities in progress, the status of main supply routes, status of key infrastructure, potential security threats, and population movements<sup>486</sup>.

<sup>480</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 28 & 29.

<sup>481</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 30 & 31.

<sup>482</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 31.

<sup>483</sup> UN-CMCoord Field Handbook Version 2.0, 2018, pp. 31 & 32.

<sup>484</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 32.

<sup>485</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 76.

<sup>486</sup> UN-CMCoord Field Handbook Version 2.0, 2018, p. 115.

## Annex 11 Historical cases of information sharing NATO-UN

NATO and the UN have a history of common cooperation, and therefore, information sharing. Furthermore, the Joint Declaration on UN/NATO Secretariat Cooperation specifies the importance of information sharing. However, information sharing between the two organisations has not always been successful. During the peace-keeping operation in Kosovo, NATO and the UN had several forums where the organisations could share information and intelligence<sup>487</sup>. Yet these forums were not used effectively by the KFOR and the UNMIK as both organisations were reluctant to exchange information<sup>488</sup>. Furthermore, issues arose such as the shared information being abstract, the exchanged information being of little use for everyday operations, formal procedures for exchanging confidential documents being complicated which resulted in the staff not using and exchanging these documents, and the link between the two organisations being “loose”<sup>489</sup>. The joint operation in Afghanistan poses another example of failed information sharing. The UNAMA believed that the information policy of the ISAF was not adequate<sup>490</sup>. A lack of formal agreement in the domain of information sharing between the two organisations “complicated their communication on security-related matters”<sup>491</sup>.

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<sup>487</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 80.

<sup>488</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 80.

<sup>489</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 80.

<sup>490</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 114.

<sup>491</sup> Harsch, M. F. *The Power of Dependence: NATO-UN Cooperation in Crisis Management* (1st ed.), 2015, p. 114.

## Annex 12 Interview UNOCHA

**Interviewer: This interview is recorded. I understand that you consent to that.**

Interviewee: Yes.

**Interviewer: Okay great. I'll briefly introduce myself and state what the purpose of this interview is. My name is Aleks Kozuchowski. I am an intern at the JCBRN Defence Center of Excellence, and I am writing a research paper on NATO and UN cooperation. The aim of the study is to see how NATO and UN cooperate in crisis management operations, and more specifically CBRN crisis management operations including disaster relief, and identify weak points in this cooperation. UNOCHA is the main body of coordination of crisis management operations which makes your insight valuable for this study. Could you tell me about your position in UNOCHA and what that position entails?**

Interviewee: I work at OCHA in the civil-military coordination service and at the moment I work mainly at capability development in civil-military coordination. Specifically, about the effective use of military assets, domestic and international military assets, in disaster response operations, in conflict. But also, the interaction with non-state armed actors or in general, arms carriers. Over.

**Interviewer: Yes okay. Thank you. So, as I understand UNOCHA is the main communication body between the UN and NATO. The main communication body of NATO is the EADRCC. However, there are other NATO bodies involved in crisis management operations. So, I wanted to ask if you cooperate and communicate only with the EADRCC during crisis management operations or if there are other bodies with which you cooperate from NATO?**

Interviewee: Yes, yes, we do. We are a coordination body, so we are mandated by the General Assembly to coordinate, respond, and follow up on humanitarian action. And humanitarian action consists of assistance protection and advocacy. And we do, we are besides the Euro-Atlantic Disaster Response Coordination Center, we are working closely with different commands. So, it's not a centralized coordination, it's more a decentralized or even distributed coordination, where we deal directly with Naples for instance, or directly with Brunssum or directly with SHAPE. Just last week we had a planning meeting with NATO SHAPE in Mons for exercises. And then, once the planning meeting is done, we then interact directly with the command, executing the exercise basically. So, it's not only the Euro-Atlantic Disaster Response Coordination Center.

**Interviewer: Okay, so you mentioned SHAPE, Brunssum. I also know that the CIMIC COE works with UNOCHA. Are there may be some other bodies that you could tell me that you work with from NATO?**

Interviewee: The CIMIC Center of Excellence as such is a NATO accredited entity.

**Interviewer: Yes.**

Interviewee: Yes, we also work with them closely. They are even hosting for us training courses. So is Naples. They also hosted for us training courses. But then I would not be sure in the case of Naples for instance, is it more the Italian nation within NATO or is it NATO itself? So, we would not know because it's a very, sort of, distributed coordination. It's not everything sanctioned by the North Atlantic Council I would say. There is no need for them to find consensus for this lower-level tactical cooperation and interaction.

**Interviewer: Okay, all right. So, I wanted to ask you about, more about the mechanisms of how UNOCHA works. So, I wanted to describe a small scenario. Let's say there is like a CBRN incident somewhere in Europe and the nation cannot handle it, so it requests assistance from the UN. So that goes to UNOCHA. and you request CBRN capabilities from NATO. Could you explain the mechanism exactly of that to me? Like, who contacts who, who makes the requests exactly, and who makes the decisions?**

Interviewee: I think in such a scenario in Europe, there would be no sequential approach to it. I think the event itself would trigger a sort of de-facto request and in most situations, this is not a request. This is as a matter of solidarity, we interact immediately. When it is in Europe, it's maybe not a good example because Europe has a lot of capacity so in Europe it would be mainly the European Union civil protection mechanism and NATO. And the European Union military staff interacting quite a lot and responding and also the EADRCC. When it is outside of Europe, then our office would get active. And here one has to... there is a distinction between humanitarian, development, and peace and security activities. So, the scenario you're describing would really fall in the development setting or in peace and security because instability can be caused. It might not be a humanitarian crisis yet at this stage. And we only get active, and we have the mandate only for a humanitarian crisis. One can look a little bit back to Iraq for instance. In Iraq, we didn't have a humanitarian crisis. We just, we were very active as a matter of international solidarity and to basically not to lose our clients or our partners for other crisis. But the humanitarian crisis as such, in 2003 I mean, was not so severe that it would have warranted an interaction from our office. So sometimes I think the perception is that OCHA is everywhere, in every single crisis, but if you take now, not the incident you're describing, but if you take the forest fires in Austria or if you take the Volcano in La Palma, then OCHA would not be involved in this. This is European capacity what Europe can handle very well with bilateral agreements, multilateral agreements. There is no central coordinator needed from OCHA I think.

**Interviewer: Okay so let me just rephrase the question a bit or what I said. Let's say it's not in Europe but, for example, the UN and NATO cooperated together during the Pakistan earthquake, I think it was in 2005 or something. So, I just wanted to know the mechanism of cooperation and how NATO and the UN exactly cooperated. Who contacted who, and how it is actually internally?**

Interviewee: So, a lot is going on in parallel and Pakistan situation I know very well because I was the civil-military coordinator in Pakistan. So, NATO, European Union, or the international community basically response to it. But it is not that OCHA, which is in such a situation, in such an earthquake, certainly the first one to be triggered through our earthquake alert system, we get the message into our OCHA alert center, into our operation center. We form a task force; we respond immediately within days or within hours. We are basically on the ground. And then we call in additional resources but these additional resources we call in through the countries basically. We would not, as a first step, and we did not, got NATO as a first step. These were the UN agencies establishing an airbridge, UNCHR for instance, or World Food Program. So, the individual agencies for their operation would then request the support of NATO or military forces or the European Union civil protection mechanism. So, we would still continue to work bilaterally. And for sure we would keep the EADRCC and other coordination platforms very well informed. We would also keep Moscow very well informed. We would keep Washington very well informed. So, the big coordination and operation centers and platforms we would always keep informed in a very neutral and unbiased way. And that is something sometimes a little bit of a tension when we are playing exercises or when such an earthquake happens in an area which is geopolitically contested. So, if we take Nepal for instance, then you would have immediately India, the west, the east coming together and it's a matter of

deconfliction, of foreign countries intervening in a country so that there is not more political tension coming out of the response basically. Pakistan was similar. We had a lot of, yes, we don't know, in the end, it was NATO forces coming over from Afghanistan or we had the Dutch field hospital. And the key to all this response is not so much the formal mechanism. The formal mechanisms are there. It's the people working on it at the end of the day. And the more people we have trained in a system together with the peace and security actors, together with the development actors, together with the humanitarian actors, the better the response works. There is no central authority such an event. There are many of them. At the end, it's a state sovereignty issue for us. The state has to agree or to request us.

**Interviewer: Okay, you stated that when an area is contested geopolitically, I assume that goes into your decision-making? That for example if you need some capabilities but that the area is contested geopolitically then you won't take these capabilities or request these capabilities from for example NATO, or any other actor. Or do you still take the capabilities from these countries that might, well, be controversial in that geopolitical area?**

Interviewee: Let's say, I mean at the end it's the sovereign state. And we would through our system, through our resident coordinator humanitarian coordinator system, we are in close contact with the prime minister and the government of the affected state. This does not mean that a hostile nation, for instance, cannot support. Maybe a hostile nation cannot support directly. Maybe the nation which is not welcome to respond can support another nation, and the other nation responds. Myanmar is a good example. So, if you would have at this very moment one of your accidents in Myanmar, not every nation can respond into Myanmar. So, we would very much rely on the regional network as an ambassador. And we would go through this regional network, the ASEAN countries, being in a sort of coalition already in peacetime, to open the doors into Myanmar. So, we would rely very much on the bilateral and regional agreements in this context. So, I think a general answer is very difficult because it also depends on day. Sometimes assets are used for political purposes to win elections. Sometimes they are used abroad to support the internal opinion, the inner-state opinion, of a country so it really depends where we are in a political process on how active and how Member States of the United Nations are responding to such a crisis.

**Interviewer: Okay. So, I had a question about the cooperation between the UN and NATO in crisis management and disaster relief operations. How would you rate that cooperation? Would you say it's sufficient or do you think there is room for improvement?**

Interviewee: There is always room for improvement, but I think it excellent. I think it's excellent. I mean there were days I remember because in 1999 I was working in the Euro-Atlantic Disaster Response Coordination Center in Brussels during the crisis in the Balkans, the Kosovo crisis. And I remember the tension between UNHCR and NATO and the Red Cross Movement. I think we came a long way in the last 22 years to mitigate. So, this tension is not there anymore, to the contrary. And if I go a little bit further in history in 2003 in Greece, I think we had some of these problems where we set up bilateral mechanism. The United Nations and the civil protection mechanism in Europe together with NATO forces. One has to bear in mind that NATO is a body which does not have resources. The resources are with the countries. And the countries are at the same time European Union Member States. And then they are Partnership for Peace Member States. So, if we take a simple example of Austria being a Member for Partnership for Peace and European Union, they are dedicating their assets to both entities. And to the United Nations as well. So, if they have their Austrian forces disaster relief unit, which would be operating in this area, in this field, they are with the Austrian NBC Defence School, they are basically dedicated to the United

Nations, to the European Union, and to Partnership for Peace. But they only exist once. So, when they deploy, there is always this question for visibility. Who are you here with? Civil protection mechanism or are you here with Partnership for Peace and NATO? Or are you here with the United Nations? For us, this doesn't matter. For us visibility should be the last, it should be about the effectiveness to help the people and if we all put the people into the center the cooperation and collaboration will be much better. And I must say, at the moment, from my level, and I'm quite low in the chain for sure. There is the big thing, the advocacy, the lip service. But I think on the ground, and on the collaboration and our capability development training it's excellent. We support each other wherever we can. Sometimes I must say, the picture at the headquarters looks totally different to the picture on the ground. At least in the United Nations it is like this. And unfortunately, the organisations outside of the United Nations, they are much faster in using their social network. They don't have the same approval processes, and anyone can basically put something out and criticize the other party. But between us at the moment I must say, and I don't see that there is a lot of changes coming, the cooperation is excellent between us and NATO.

**Interviewer: Okay so nothing major to improve in your opinion. Nothing like, critical?**

Interviewee: Well, what needs to be improved, and this is the, what I call the vertical part of coordination because we are very well with coordinating peace and security, we are very well with coordinating development, we are very well in coordinating humanitarian. But then this vertical part between the 3 of them, that's where the improvement should focus. And I would not have at the moment any details but when it comes to coordination, where we go into... so when we're talking about centralized coordination and decentralized coordination and distributed coordination where not everything has to be known at the headquarters. If something works in the deep field, the frontline. And here some organisations are really very centralized, or some countries are very centralized and take every decision at the headquarters basically.

**Interviewer: Okay. So, you have said like, a few minutes ago that for example, a nation is in these different cooperation mechanisms, or like, let's say Alliances or whatever, like NATO or UN or Partnership for Peace. So last year a COE study discovered problems in the cooperation between the EU and NATO. The problem was that, during crises, both the EU and NATO would get offered the same crisis management units from nations, so as you said for example, Austria providing to Partnership for Peace, NATO, and UN. But then that created the illusion that the EU and NATO both could offer crisis management assistance, even though there were only a few units available. This problem was created due to the lack of information sharing on available units between the two organisations. Has this problem also been encountered during NATO-UN cooperation in crisis management?**

Interviewee: In the past yes. That's why we stopped. That's why we stopped our central register. So, in the late, or in the 90s, the mid 90s we had a central register for assets, and all these assets were registered there. And then we found out for instance that we have dozens of search dogs registered but the search dogs, they only exist once. And here it's about speed for us, it doesn't matter where the assets are coming from but yes, we experienced it in the past. We stopped our central register and there is a simple reason for it, that countries don't see this as a shopping list. So, you go to the web, and you find out repository of assets and then you start requesting them. Like a shopping list. But this does not mean, like in a supermarket, that the shelf is full of goodies. It's just a shopping list. And in many cases this asset, they do not exist. So, if you have in the shopping list 3 aircraft and one of them is in maintenance, second one doesn't have a crew, and only is flying but it is stated that there are 3 aircraft. And so, we stopped the, we



stopped this shopping list. We prefer an approach where the nations request the effect and not the asset. This led in the past to nations requesting the assets, but not what do they want to do. So, if I go back to the forest fires again in Austria, the most recent one. Austria would request assets to extinguish the fire but if I have a shopping list I start requesting “ah I want to have a helicopter or I want to have a fix wing aircraft” and this is not healthy for the effect basically, for the effective use of these assets. Because there are the experts of how to use these assets. So, at the moment I don’t see this. And maybe it is, thanks to these multi-entry points. Maybe it is because there is not the request, or the response is not held through one entity like the United Nations. It’s really about who’s there first and who can respond effectively. And the decisions, they have to be made in the affected country. Sometimes the affected country is stressed themselves. I remember the Turkey earthquake where mayors were killed. Then someone has to support and even substitute, and if this is a NATO entity, a European Union entity, or the United Nations, it does not matter. If it is outside of the European Union, and outside of NATO countries it would make sense the United Nations steps in much stronger in support of the host government. And when we have already conflict or tension in a country it makes sense to have the most neutral or perceived neutral broker into the scenario. If I take Ukraine, well it would from our point of view, you have NATO as a coordinating body looking at the east and west in a neutral unbiased way, I’m not sure if this would work from a humanitarian perspective, from a political perspective.

**Interviewer: All right so as I understand it right now the mechanism is basically that the nations don’t request specific resources, they just say what they want and then the nations around them send in the resources that they can.**

Interviewee: They offer. I think they offer their resources, and they offer, sometimes their offer is completely inappropriate, and the nation still take them in because they are a friendly nation. I remember the Philippines, the ambassadors, they said “we’re a friendly nation and we would never deny an asset. So, the only thing with which we can help is to write specifications which the nations cannot need, because some of these resources are a real burden on the coordination mechanism. Especially if I think about actors responding, nations responding with military assets and the entire force protection, which has to be provided by the host nations, they sometimes became a burden. And I’m not saying they aren’t needed. In every crisis I experienced in the last 25 years the military is needed. But for us and for Member States sometimes it becomes also a burden. And it should be regarded as a last resort. And we should, wherever possible, develop the civilian capacity.

**Interviewer: Yes. You mean a burden in the sense of logistics or...?**

Interviewee: Coordination and force protection. So, you can take small contingent for instance and the contingent is on a ship. So, you have 100 soldiers. They’re on a ship. Every day in the morning they come to the country from abroad, then they need force protection, and these are then the domestic military forces. So, you have 100 soldiers from a foreign nation and then you have another 100 soldiers providing their force protection. And this is sometimes not the most effective way of doing business.

**Interviewer: So, is this also necessary in non-conflict, let’s say disaster management?**

Interviewee: Yes. If you go back to Pakistan, our force protection, our ring around the camp that we had, we had about 100-150 people, coordinators in a camp. And our force protection was, I think, the marines in Pakistan. And I had daily meetings with the major doing the coordination of the marines for our security

and when NATO came in, they were withdrawn. They went to NATO. And they provided force protection for the Dutch military hospital. So, we lost our force protection.

**Interviewer: Okay all right, I see. That's interesting. So, when it comes to the EADRCC and UNOCHA I wanted to ask if you have like contact with them outside of crisis management. So, for example like trainings and exercises or something like that?**

Interviewee: Yes. Last week I had a long meeting with (name of the person from EADRCC). I had a long meeting with (name of the person from EADRCC) and we spoke about the different platforms, coordination platforms, and protocols for coordination. It was in the context of Saudi Arabia's emergency and humanitarian cooperation center. So, I had the meeting with (the EADRCC person) last week, and at the same time I had a discussion with Naples. So yes, we have outside of crisis we have a lot because the preparedness is the important part. I think I have now in my next event in January a planner from Brunssum participating but I would need to look at the details. But this cooperation, that's what I meant saying earlier that cooperation works quite well, we are trying to educate each other of the different systems. Because sometimes in our business it's more important to know the other party than your own organisation so that you can coordinate and cooperate.

**Interviewer: All right. So is the cooperation done, such as the meetings as you say, is it done on an ad hoc basis or do you have like a specific timeframe or times in the year to have meetings or trainings.**

Interviewee: So, the pandemic was interrupting our routine a little bit. Normally every year NATO SHAPE together with Brunssum and Naples would come to Geneva, and they would visit all the international organisations, UNCHR, the Red Cross Movement, they would visit us. And we would have an extensive planning meeting for the coming year. This is what we did now online, and we want to go back to the other routine. So, this is the set meeting basically. And we would have also a big event every year, that's the so-called Humanitarian Network and Partnership Week where many of the NATO entities would join basically such as the CIMIC Center of Excellence. So, the CIMIC COE would always do an update during these meetings. These are the former mechanisms but then the rest is ad hoc yes. Based on a need.

**Interviewer: Okay. My question is then, when you have these trainings and meetings, I understand that you take in the context of non-conflict CBRN incidents?**

Interviewee: Yes.

**Interviewer: Yes? Okay, so do you make like standard operating procedures on that or like specific plans?**

Interviewee: Well, your field of work would fall under the Oslo Guidelines. These are the guidelines for the use of civil-military defence assets in natural disasters and technological emergencies. So, all of this would fall under this guidance framework. And this guiding framework we are teaching extensively. Not only in the mobilization of the assets within the context of the legal framework and in the context of on-site coordination. So, there is a document called "Recommended Practice" and this is maybe, this is recommended for effective civil-military coordination. And this is maybe a good summary when we are talking about the 5 phases of such an emergency and the preparedness basically, the deployment, and the employment. So, the deployment is the mobilization of the resources. The employment is then how are they included on-site or in the context in the mechanism, the coordination mechanism. And phase number 4 is the transitioning, how do we get them out again. And phase 5 would be the monitoring,

evaluation, and the after-action review. So, these 5 phases are I think, are important. And we always get stuck with phase number 5 because it's not transparent enough. The evaluations are not transparent enough. One can imagine, if I have such a big accident somewhere in the middle of nowhere on an island and I deploy a big medical ship. And this medical ship costs, I don't know, 2 million a day and it's empty all the time. I will maybe not make my evaluation report transparent and just say "I just wasted 20 million dollars because no one used my medical ship". Again, I'm not saying medical ships aren't needed. The capability of medical ship is needed but maybe not the ship itself. So, in Indonesia for instance, we had 3 of these big medical ships. And we had a minor injury in (Indonesian city), Sumatra, and 3 helicopters were waiting to pick up the patient because there were no clients. So, what I'm saying is, when we look at these phases of after-action reviews, they could be much better coordinated. So, if one is looking for improvements then it's the after-action reviews.

**Interviewer: Okay, so the after-action reviews. So, the problem is with the after-action reviews from what I gathered from you is that people often do not want to do them, do not want to fill them out, let's say, truthfully because then they would show that maybe they failed in some aspects and that reflects poorly on them.**

Interviewee: The collaboration, the transparency, the accountability in the after-action review is sometimes totally missing. There are exceptions where we do this together, and the best way is to do it together. But if every actor does internally and after-action review, they always look good. It was always successful, that's what I saw. And if I read an after-action review of one nation and I was in the same emergency sometimes I believe I was in a different one. It's just looked at from one point of view. We call this also the mandate. The mandate bias. I'm just focusing on own mandate; I'm not focusing on the overall situation. But I'm just focusing on my own little piece.

**Interviewer: Okay and do you have any recommendations, or any ideas how you would solve the problem or look into it?**

Interviewee: Dialogue, be more open, establish trust and confidence in peacetime. So that in times of stress we know each other, and we can talk to each other. I think our training programme on humanitarian civil-military contributes to this a little bit. At the higher level, it is difficult because we know that governments are changing every 4 years and so does the establishment of trust and confidence in peacetime so that we can more transparently communicate. And dialogue in times of stress is a key aspect. I also know how to do it. It's training and exercises, it's training and exercises. To strengthen the training and exercises, which is done on the military side, on the NATO side very well. The thing on the humanitarian side is we lack the capacity, and we lack the resources. So, if I look at the invitation, my personal invitation list, it's 80 invitations per year for one week where the year has 52 weeks. It's just a lack of resources. We call it also the 90/10 relationship. The military is doing 90% of training and exercises and we're doing 10%, and we're doing 90% of operations and 10% of training and exercises. So, we cannot come together. There was one of my former OCHA chiefs here in Geneva, Mr. (name of OCHA chief). He made an article about this one. About training and exercise and what we could improve in this relationship.

**Interviewer: Okay, could you maybe provide me that article? Whenever you have time.**

Interviewee: Yes. It was around 5 years ago yes.

**Interviewer: Okay, great. I wanted to ask about virtual OSOCC. As far as I know, it's the main platform of communication in crisis management operations. As I understand it NATO, when they are involved in a crisis management operation, they make use of the virtual OSOCC. So, have you experienced yourself any problems with the virtual OSOCC when NATO was involved or just in general?**

Interviewee: Well since I work in the virtual OSOCC every day for sure I experience problems. The only thing is, it's the only two-way communication platform, globally, where everyone has access and it's not classified, where we get firsthand information and it adds tremendous value, in terms of operations, it adds tremendous value in the first couple of days. Then the information, the data information knowledge, which is provided through the virtual OSOCC, it shifts to other platforms. To one-way communication platforms. The number one platform is still the relief web. But it's just not designed for operational cooperation. So, the virtual OSOCC, I'm a little bit sad that from an organisational point of view, it received too little support. It receives the support from the owners and from the international search and rescue community and they're using it extensively. I use it extensively for my training purposes because I see it also as a big contact management database serving 50-7, I don't know, 60 thousand users in it. And so, we use it extensively and preparing people for the virtual OSOCC. So, it's the normal technical problems that we have. But we have here 24-hour service supporting us. The problem is more... the people these days they want to see very sexy, shiny, glossy, interfaces, webpages. And if you scratch a little bit there's nothing in it anymore. You cannot go to any source of the information. You cannot contact the source. You have just a fire and forget approach and it must be shiny and glossy. And then senior managers, they like it. The dashboards, it's a good example. We had so many dashboards... who is using these dashboards? I'm not sure a lot of people are using them. But the virtual OSOCC you can go very deep if you want to. If you want to go very deep you can go very deep into the data, into the firsthand information coming from our coordination teams. And as I said, it's designed for a couple of days for an emergency, but it's also designed for big exercise and for training events. So, we have our own workspace on humanitarian civil-military coordination where we run our own industry. This workspace no one can see. Because it's the UN-CMCoord, the humanitarian civil-military operation workspace. So, a normal user can only maybe see the virtual OSOCC but there are a lot of workspaces within the virtual OSOCC a lot of people don't know.

**Interviewer: So, I understand that the main problem is that after a few days the participating Members, Nations, whoever participates in an emergency, then they go to other platforms and that's a problem a problem because the information isn't then centralized? Or is there also another reason?**

Interviewee: No, it's not a problem, it's even done through the virtual OSOCC. So, because the owner is the community, it's not us. It's not coordinated centrally. There are moderators centrally. But the owner is the user basically. So, the users say, after a few days, "watch out, this is the better information hub. This is one-stop-shop. Please go to the emergency center in the Philippines". There is the better information. That's designed on purpose. So, people are directed basically, they come into the virtual OSOCC and as soon as there is a more effective platform, they are directed out of the virtual OSOCC.

**Interviewer: All right. So, when we talk, just to reiterate let's say 2 or 3 main problems with the virtual OSOCC that you could name.**

Interviewee: I think number 1 is the, not for me but for other users, is that it does not look good. That's the number one. It's not a shiny layout. That's the number 1 problem. The number 2 problem is that many people don't want to learn anymore. They want to teach. And every platform, if it's so sophisticated as the virtual OSOCC is, needs a little bit of learning. It needs a little bit of investment to understand the

concept and to get around the two-way communication since it is a two-way communication platform. That's the number 2. And the number 3 is the organisational buy-in at the top level. Organisational buy-in of senior managers.

**Interviewer: Could you repeat? Organisational what?**

Interviewee: The buy-in, the support of senior managers. And it's related to number 1 and number 2. So, number 1 problem is that it doesn't look good. And number 2 problem is people don't want to learn. So senior managers are judging the effectiveness on how it looks like, and they don't want to learn. So, they go in, they try, they cannot log in and they say it does not work. Because they cannot log in. Because they don't read that there is a button to reset the password. They're just trying and saying it doesn't work. So again, number 1 and number 2 are related to number 3, to the support, the lack of support from senior managers in the organisations. I mean I was 15 years ago; I was teaching the virtual OSOCC in the International Federation of the Red Cross because they used it in the same way as we do. And it's the practitioners who see the value it's not the senior managers. But at the end the senior managers make the decisions about our communication tools. And what other tool is there where we can talk openly with the military force in responding? We can openly talk to each other. The Red Cross has a very sophisticated system but not open to the outside. To no one.

**Interviewer: So, have you also experienced these problems that you just described with NATO? That NATO also, let's say some bodies of NATO also don't, we'll have these same problems that they sometimes don't know how to use it or don't want to use it just like the managers that you've just described?**

Interviewee: I think it would be the same. I mean if it happens in our organisation, if we ourselves providing the secretariat with such a tool, we're not the owner but we provide the secretariat and the development, it's 1 person basically managing all of this, and if we're criticizing it internally, I think other nations would criticize it in the same way. Just last week I said, the only platform for contact management is the virtual OSOCC, and one of the senior managers said "yes but it does not look good". If you take our other effort on contact management what we did together with Microsoft for 30 years we're working on it, 30 years we're working with Microsoft. I even deployed together with Microsoft staff into emergencies. The last one was from an island; these are employees of Microsoft. They said that they will help us to develop a tool so after 20 years we came up with the Humanitarian ID, that is Humanitarian Identification Database. And we ran it and suddenly we had a brilliant tool for contact management. Not sending back and forth Excel spreadsheets anymore. And after 2 years we said we cannot sustain it anymore. Microsoft said "we don't support you anymore and we don't sustain it anymore" so we tied again. The only tool since the 90s, and I started virtual OSOCC actively in September 11 where we immediately opened a topic basically on the Manhattan incident. And the response was overwhelming. It was overwhelming. When the European Union talked about consolidating assets after 3 days or so, we just pushed a button and we said "here it is, and here it is in Spanish, and here it is in French" but the problem I think remains is what I mentioned. The 3 problems.

**Interviewer: Okay thank you for that elaborate answer. When it comes to the communication between the UN and NATO, do you have any problems due to different standards of information sharing or the use of terminology, classification of documents?**

Interviewee: Yes absolutely. But I think it's the classification. It's normal. We just have to learn on the humanitarian side what the limitation are on the NATO side and with the classification, and we have to respect it. And just last week NATO said "we would like to have you in this and this exercise, but we cannot tell you what it is about because it's classified at this stage". You know it's in the process of being unclassified. So, we have to respect it. And the military has to respect our mandate and our role that we talk to terrorist organisations, that we talk to the other geopolitical party. We talk to everyone. And we, each of us, we have to respect and value our mandates but also our limitations. And respect these limitations. It's like, the Red Cross says "we tell what we do we don't tell what we see" and we have to respect it. I cannot go to the Red Cross delegate here directly opposite of my office and I can say "what did you see in the prison, in Abu Ghraib". I cannot do this.

**Interviewer: Yes. Okay and what about terminology between NATO and UN? Do you see a big differences when it comes to just phrases or that the two organisations sometimes talk past each other due to terminology?**

Interviewee: Well, I think this is up to the communication style of different cultures. But it's not up to... it's up to the set norms and guidance. So, if I take a simple example, and you can test this, ask 10 people in your environment who knows what EARDCC stands for, and you would get 9 negative answers. Might be not in your field because, where you work. But in my field, no one would know what this stands for. And if we keep talking to each other like this in acronyms, so yesterday I was, I'm working with the department of safety and security in New York right now, I could not understand half what they told me. They just spoke in their acronyms. And I don't know what an FSO, FCA, and whatever this is. So it's not the terminology. I think the terminology is clear and it's very well defined. It's how we use it, how we interact with each other. And people I think, people defy the communication, the skills, the style what we're using as a major obstacle.

**Interviewer: Okay, so sometimes just when you talk to each other, these people still talk in acronyms and well, because you're not from that organisation you don't know what it means.**

Interviewee: Also, on our side. It's exactly the same. On our side we would say on the side of NATO, they would say the Secretary General, and we would say Martin when we refer to our boss. But who would understand Martin? You know what I mean? Because we would just talk in first names. And so, it's on both sides.

**Interviewer: Okay. I'll go back to CBRN disasters. Do you think that the UN has adequate response capabilities or just capabilities in general, to respond to a CBRN disaster?**

Interviewee: Zero.

**Interviewer: I know it's from the nation itself that they give it out but is there enough... do you see any problems somewhere that could potentially affect such a disaster negatively?**

Interviewee: Absolutely but our policy is basically evacuation. So even if you have a coordinator, a very well-trained coordinator, the very well-trained coordinator from the United Nations would not be able to operate in a contaminated environment. The person is not trained. And we had this in the Iraq crisis where suddenly some organisations approached me and said that they have to train now, the people in nuclear, biological, and chemical protection measures. And I said "well this training takes half a year or a year". It's not like it's done in an online session or a presentation. Wash your hands or whatever. So, I said no. I

said I'm not going to engage in this and I even, I think I approached the Czech Republic and the Slovak Republic in 2003, I don't remember now exactly. But we don't have this capacity. So, our capacity and policy is evacuation. If we have such an environment we evacuate. We're not going in; we're not going to use protective gear and continue on coordinating on-site.

**Interviewer: So, I understand that your members, like employees let's say, they are not trained in CBRN...**

Interviewee: No.

**Interviewer: Okay I see. So, I wanted to ask because the UN also has the UNDAC if you maybe know something about it, because they are as far as I know first responders, right?**

Interviewee: Yes.

**Interviewer: So, are they trained in CBRN capabilities?**

Interviewee: No.

**Interviewer: Also, not. Okay. They are not.**

Interviewee: They are trained in environment I think very well. They are trained in spotting and analyzing the environment, but they are not trained in operating in a contaminated environment. Maybe it's wrong because some of the members are national disaster management experts. So if I have an UNDAC member from the NBC Defence School in Vienna then for sure the person is trained you know. I myself am an UNDAC member and I'm trained but this is not the norm. These are individuals which are just by coincidence members of the disaster, UNDAC Disaster Assessment and Coordination team.

**Interviewer: So, you don't send UNDAC members to CBRN disaster sites?**

Interviewee: They would not be allowed from a security policy perspective.

**Interviewer: Okay. So, I wanted to ask, if a nation requests aid from UNOCHA, from UN basically, in what timeframe can UNOCHA, the UN mobilize needed resources or coordinate them so that they get on-site in the time framework.**

Interviewee: UNDAC within hours.

**Interviewer: Within hours.**

Interviewee: Yes.

**Interviewer: And other sources or like, disaster relief? Or is that based on national capabilities?**

Interviewee: Yes, this is written down in the guidelines for international response and for search and rescue and some of these nations, they are pretty fast. They're ready to take off within 4-6 hours after the request comes in or after the emergency happens. I'm thinking here of Switzerland and I'm also thinking of an UNDAC team, they had a plane from Switzerland waiting on the French side of the Airport here in Geneva and they took off within hours. And also, these teams. They're very, very fast. The only problem is here, and we did some studies on this one, is the decision-making process related to the dedicated resources or non-dedicated resources. So, what do I mean by dedicated resources? Switzerland,

Austria, Sweden they have dedicated resources for disaster response. But they don't have necessarily a decentralized decision-making process. What do I mean by this? In Switzerland, the head of disaster relief can decide if he or she deploys a team of 120 rescue workers by him or herself. In Austria you need the consensus of 3 ministries, so you're already a little bit slower. In Sweden, you also have the post of MSD, the Swedish Civil Contingency, that can decide themselves. So, whenever you have a decentralized decision-making process, it's given to the head of disaster response like in Switzerland here, and you have dedicated resources, the Swiss disaster rescue team or lifting, then you are fast in responding. If you don't have dedicated resources you have to withdraw them from somewhere else, and you have a centralized decision-making process where the president decides, then you are too slow. Don't go, you're too slow. We are saying no no don't go.

**Interviewer: All right. Does the UN have any specific guidelines on CBRN incidents in peacetime?**

Interviewee: Well, if you consider the Office for the Prohibition of Chemical Weapons a specialized agencies associated with the United Nations then yes. But I think our office has a commission, and maybe you interviewed (name of the person) did you?

**Interviewer: No, I didn't.**

Interviewee: He is the man to be interviewed on this one. On this question. (Name of the person) is one of the senior officials here. He was with OPCW in the past and he works with the Austrian NBC Defence tool. His brother is one of the colonels in the strategic department in Austria and he sits here in Geneva. I can forward you the contact details. Because he will be able to answer all these specific questions because there is a commission within the United Nations for the prohibition of chemical and biological weapons and this would be the right place. And then you have our big office in Vienna, the International Atomic Energy Agency which is less relevant for you.

**Interviewer: Yes, thank you. If you could forward me that contact, I would be very grateful. I had a question about the Inter-Agency Standing Committee if you could answer some of it if you have information on that. From my understanding, the Inter-Agency Standing Committee is basically, like one centralized committee that coordinates the response to a crisis situation of all UN bodies or like the relevant UN bodies and also relevant non-UN bodies. Is that correct?**

Interviewee: Yes, it's almost correct. You know the system quite well. They're not so much coordinating the response; they're setting the policy inter-guidance. So, they're really a strategic body. The Inter-Agency Standing Committee has different layers and at the top level the principles, they're not coordinated. They set the guidance. And here you have the humanitarian agencies and then you have the consortia of non-governmental organisations in it, and then you have the Red Cross Movement as an observant, and then there is an IDP representative. So, they're there to set the policies. And then you have an operations group in it. And the operations groups, operations, and advocacy group it's called, there was a little bit of reform in the last 5 years, they would develop guidance. They would develop system-wide guidance for the humanitarian community. And this is the problem since the body, the Inter-Agency Standing Committee is a humanitarian (inaudible). And sometimes we have quite some, for instance with peace keeping. So, there is no department of peace operations sitting in this body. So, it's a humanitarian, exclusively humanitarian policy-setting body. That's how I would describe it one.



**Interviewer: Okay and what are these policies based on? Like, are they made on an ad hoc basis, or do they make standard operating procedures for all of these bodies?**

Interviewee: Yes, we call it policy, we don't call it standard operating procedures. Standard operating procedures would be developed on our level if we call it this way. We call it guidance or field handbooks. But at this level no, it's not on an ad hoc basis because to develop a policy on civil-military coordination takes us 2 years, 3 years, 4 years so it's not ad hoc. It's a whole process with a wide consolidation in between to reach consensus. So, it's a long process. The more ad hoc stuff is done on our level here based on the directions from the guidance. Right now, the IASC is quite engaged on setting policies on, you know, how to deal with terrorists, how to deal with sanctions, how to deal with non-state armed groups, how to deal with the climate crisis and the effects of the climate crisis. So really on a strategic level. Looking far ahead basically. You can compare it within the military as the planners and the operators. The planners looking far ahead. The planners looking 3, 4 days ahead. So, we're the operators and they're the planners, they look far ahead, and they set policies.

**Interviewer: Are these policies open source that you can find on the internet or are they classified?**

Interviewee: No, they're not classified they're all open. You find them on the relief web, but you also find them on humanitarian response.info I think is the webpage, the latest webpage. There is actually a webpage, a new one, I can send you this one as well. It came out maybe 2 weeks ago or 3 weeks ago. There is a new webpage, newly launched webpage of the IASC with all the policies and resources in it.

**Interviewer: Well, this is perfect timing. Great. So the mechanism of coordination of the IASC, so you said that they make policies, and it is a long process because it involved everybody and everybody has to be basically, OK with it. So, they have like standard meetings to talk about it or something like that?**

Interviewee: Yes. So, at the principal level 2 a year, at the deputy level 4 times a year and then the different working groups, they have to meet more often.

**Interviewer: Okay and are there any specific guidelines or formal procedures or policies, legal documents, on information exchange between the EADRCC and UNOCHA?**

Interviewee: No not between us bilaterally. But we have a data center in The Hague from the humanitarian community in The Hague with a number of satellites from all over the world. Indonesia, Kenya, Nairobi, to Panama. And this data center is setting the standards, it's called data responsibility. It's a generic document. It's not on a bilateral basis so I would not recall any document which is established on a bilateral basis on information exchange. So, like you know, our section for instance civil-military coordination service and the EADRCC, I would not know of such arrangements.

**Interviewer: Yes, because I tried to find the specific document for, just a UN document that regulates how to, on information sharing basically, and I thought that that document was maybe like classified or something because I couldn't find any specific document on that.**

Interviewee: No, I don't think this exists and if you think of the UN, who is the UN? It's the Member States. And if you think of the Member States, this was an effort 20 years ago in the context of peacekeeping the, so-called Brahimi report recommended an intelligence body within the United Nations so that we can do our own intelligence. It never worked because the Member States are deciding on this one here. So, the Member States would not let the United Nations make an agreement with another body somewhere

without having a say in it. So, I think you will not find it. What you find within the United Nations is all non-binding sort of documents, corporate agreements. So, I have corporate agreements with the Geneva Center for Security Policy for instance. This corporate agreement is not going into any details. I also have one with the CIMIC COE. I can also send you one of these examples how such an agreement looks like. They are non-binding, and they don't talk about any financial implications or whatever.

**Interviewer: All right yes if you could send such a document to me then that would be great because I want to compare basically how it looks like, between the NATO and the UN. And their policies on this. But so, for example, the UN is a big organisation and they do have some classified information so are there no standards or guidelines to regulate that so that this classified information doesn't leak out somewhere?**

Interviewee: We have. We have and my friend from Kansas, he just did a little video on this classification, we have a classification system. The more classified it is the more it gets shared among the communities. So, if New York say to me "this is classified I cannot give it to you" I call Oslo and they give it to me as a Member State. So yes, we have a system but adhering and enforcing is different. Adhering to it and enforcing it is a different topic. So, it's not like in NATO.

**Interviewer: Okay great. So, you said that there is a system. Is that based on a specific guideline or policy?**

Interviewee: Yes.

**Interviewer: Okay. Is that policy open source? Like, I can find it on the internet?**

Interviewee: Yes, for sure.

**Interviewer: Okay then I'll try to find it. Because I was looking for some information on that so... do you maybe know the name of that policy?**

Interviewee: I think United Nations Classification... there is a policy document on it. It's a United Nations policy document, not OCHA policy. United Nations policy Secretary General issued it. I think even, either this one or the last one, but I looked at it recently.

**Interviewer: Okay all right. I'll look for it. I had a question about a specific instance of cooperation like during the COVID-19 pandemic the UN and NATO cooperated with each other. I know that UNOCHA was involved in that. How would you rate that cooperation? What do you think about that cooperation? Were there any problems encountered?**

Interviewee: For me personally it was a strange one because we said basically the use of military assets is the last resort and at the same time all commercial aircraft were empty. And they were grounded. So, we determined that it was a last resort. And the cooperation was between, we issued some guidance on our webpage, on dialoguing.org, I don't know if you saw this one, but it was more a cooperation between the World Food Program and NATO. So, I don't have the insights as I was working on different topics at this time. I think it worked quite well, it's just a question on how much did we violate our own policies basically.

**Interviewer: All right. And you said there was a document specifying what happened during that.**

Interviewee: On civil-military coordination, not on overall, but on civil-military coordination there was a document. We even did a little interactive, I remember I did it with my colleague together something interactive once the document was released basically. And this one you could find at dialoguing.org

**Interviewer: Okay. On UN-NATO cooperation on COVID-19?**

Interviewee: No not on NATO-UN cooperation. In general, civil-military cooperation. There are more than NATO. There is more than NATO for us. Especially the Russians, they have big assets.

**Interviewer: I see. Now I wanted to talk about some cultural differences between NATO and the UN. Which one were the big cultural differences that you have encountered that may affect the cooperation negatively?**

Interviewee: I think if NATO, especially if NATO deploys outside of NATO, the culture clashes are extreme. And here most NATO nations they understand the tasks as the prime objectives. But many other nations have their relationships as their prime objectives. So, before you build the relationship there's no cooperation. But NATO nations, they see the task as the bonding element. You know, we have our task, and this is our bonding element. But for other it's not the task. It's the relationship which comes first. I think the culture and the background, and the differences they're coming when we respond outside of the NATO nations. On the civil-military coordination there is a simple example. NATO is trained in coordination and cooperation, but they mean something completely different to what the United Nations means in cooperation and coordination. For NATO cooperation is the umbrella. For us and the Red Cross Movement coordination is the umbrella. And cooperation is when we sit very close to each other. And for us the coordination is the umbrella. And for them, the cooperation is the umbrella. So, if we sit together in a discussion we have to clarify. This goes maybe back to your terminology question now. I say the terminology is very well set. We just have to learn each other's terminology.

**Interviewer: Yes, so I've heard that UNOCHA and CIMIC COE are trying to address these cultural differences through trainings and things like that. Does that also happen between the EADRCC and UNOCHA or other NATO bodies?**

Interviewee: Well, the EADRCC themselves they are excluded from some of the exercises because they're confidential... was this the question?

**Interviewer: Yes, I just wanted to know if there are any... because I know that the CIMIC COE and UNOCHA have specific trainings to address these cultural differences between these two organisations. And I wanted to know if there are also these specific trainings between other NATO bodies and you.**

Interviewee: I think our training program, we want to overcome these cultural differences by putting the group together. As a diverse group, we're saying diversity is strength. Now when NATO does training in Oberammergau you rarely see someone from Mongolia, or from China, or from Moscow. But in our training courses you see all these cultural aspects coming together. And it's basically every opening of our events where we speak about it, where we speak about our differences. How we make decisions, how we build up relations, how we manage time, how we provide feedback. I'm not sure where you're from but in America, you have 3 positive elements before you come to a negative one. The Dutch ones will say "well forget this nonsense, what is the point here". And they would be very direct, a Dutch person. This is what we bring up in every of our training event to point out the differences and there's nothing wrong with agreeing to disagree. Otherwise, we cannot progress. But I don't think there is any broader effort

on... I saw in Bosnia the military did a cultural training; I think it's very difficult to train. You have to live it. You have to come together, and you have to get a coffee with a person from the other culture to better understand the culture. And there's a lot of dialogue and discussions.

**Interviewer: Yes, when I spoke about culture, I wanted to specify that's the organisational culture, not the, between the different countries and between the different national cultures but like more specifically NATO organisation and UN organisations.**

Interviewee: Yes, at the end of the day NATO is made up of countries, and the countries are represented because culture is something what you walk with. It's like a map you know, your culture map. There's a book written, the Culture Map. And you walk with it your entire life. For sure it changes here and there but I'm not sure that I'll adapt... although I miss the United Nations, that I will adapt the culture of Zimbabwe. I think I'm going to stay with my Austrian culture quite a lot. So, I bring my culture into the United Nations and the United Nations is composed of 194 Member States and then you have this culture. And then you develop your own, your United Nations culture. But the main thing is that it still stays a diverse organisation in terms of cultures and backgrounds.

**Interviewer: All right. I wanted to ask you about contact you say you already recommended me to contact one of the other persons from UNOCHA...**

Interviewee: Not OCHA. He's from a commission here in Geneva. We have about 50 UN organisations here.

**Interviewer: Okay all right. I wanted to ask, because I was also interested in speaking to someone from IASC about the mechanism of cooperation during disaster management or crisis management, whichever more you want to use. Would it be possible to get a contact from you on someone from the IASC?**

Interviewee: I have to look at the list. It's a small secretariat and not a lot of people. It's a small body and I will look who's there at this very moment. The boss is an (nationality), she would maybe have less to contribute in this regard but I will have a look.

**Interviewer: all right thank you very much. If it's not possible then it's, of course, no problem. But I just wanted to... maybe it would help me in my research. I wanted to ask you if I had some additional questions, some clarifications in the future, would you be able to answer them through email or...**

Interviewee: Yes, I am available.

**Interviewer: Okay I just wanted to know for sure.**

Interviewee: No, it's no problem it's just that the understanding should be that we are busy busy busy. I'm going to work through the weekend to get my stuff ready for Monday but that's my problem, not of students or researchers. Especially the British universities they're quite after us.

**Interviewer: Yes, thank you very much. And are there any last remarks or statements that you want to make or maybe something that came up and you wanted to talk about?**

Interviewee: No.

**Interviewer: Thank you very much, this was a very extensive interview, so I have a lot of information. Again, thank you very much.**

**Sources provided by the interviewee post-interview**

The interviewee has sent several documents after the interview which included:

1. A Memorandum of Understanding between the Emergency Services Branch of UNOCHA and Geneva Centre for Security Policy (GCSP)
2. A Memorandum of Understanding between the Civil-Military Coordination Section of UNOCHA and CIMIC COE
3. UN Secretary General's Bulletin on information sensitivity, classification and handling (ST/SGB/2007/6)

## Annex 13 UNODA email exchange

- **Could you tell me about our position in UNODA and what that position entails?**  
*Pol. Affairs Officer, BWC Implementation Support Unit, see [mandate](#)*
- **Could you tell me what the mechanism of operation of UNODA is when it comes to non-proliferation of CBRN weapons?**  
*See [ODA website](#) and [strategy/ODA website](#)*
- **(If this is not classified information) I was wondering if you could tell me about the structure of UNODA and its size (number of employees)?**  
*[PowerPoint Presentation \(amazonaws.com\)](#)  
[UNODA Structure – UNODA](#)  
around 60 posts (Regular Budget), +20 from extra budgetary funds (varies)*
- **I have heard that UNODA cooperates with NATO in CBRN non-proliferation issues. Could you tell me with which bodies of NATO you collaborate?**  
*Info only about BWC ISU*
  - *Limited collaboration with Arms Control, Disarmament, and WMD Non-Proliferation Centre (ACDC) - mainly attendance of each other organisation official meetings/conferences (e.g. Annual NATO conference on WMD Arms Control, Disarmament and Non-proliferation; BWC Meetings)*
  - *Delivering lectures at NATO School Oberammergau*
- **How your collaboration with NATO looks like? What the mechanism of collaboration is?**  
*See above; to some extent based on informal, personal contacts*
- **In which common NATO-UN operations was UNODA involved in?**  
*UNODA is not an 'operational' organisation; not aware of any NATO-UN operation where ODA was involved*
- **Could you expand on these common operations a bit (when it happened, what were the objectives, how did it go, were there any lessons learned)?**  
*n.a.*
- **Are you satisfied with the current level of collaboration with NATO?**  
*Appreciate that ODA/BWC ISU invited to conferences;  
Collaboration depends on mandate of each organisation*
- **Does the UN have any specific guidelines on CBRN incidents in peacetime?**  
*BWC: see [Article VII of the BWC](#) [not guideline though and not about bio-incidents but deliberate use of BWs]*

- **Is UNODA involved in any from of CBRN crisis management operations (clarification: involvement in CBRN crisis management operation such as, for example, response to chemical factory explosion, chemical gas leak, pandemic etc.)?**  
*not applicable [only operational activities in which ODA has a role is the [Secretary General Mechanism](#) [ODA is the custodian]*
- **Is there anything you would like to see being improved in terms of collaboration between the UNODA and NATO?**  
*n.a.*
- **How is the information sharing organized between UNODA and the NATO in general (and if UNODA participates in crisis management, during crises as well)?**  
*Only public info shared – no operational activities*
- **Have you encountered any problems with information sharing due to over-classification of information?**  
*No*
- **Is there any miscommunication due to different terminology with NATO?**  
*n.a.*
- **Does UNODA have any trainings/exercises/seminars etc. with NATO?**  
*Participation in official events (mainly at the policy level)*
- **Have you ever encountered any cooperation problems with NATO due to a different organisational culture?**  
*Not aware of*
- **What are, in your opinion, the 3 main problems in cooperation between UNODA and NATO right now?**  
*No problems, level of cooperation guided by mandate of each organisation/entity*
- **Are you familiar with the CBRN Risk Mitigation and Security Governance Programme?**  
*no*
- **Are there any unclassified documents on UNODA-NATO cooperation that you could provide me with?**  
*Not aware of*
- **Is there someone else you would recommend me to talk to about NATO-UN cooperation on CBRN issues and crisis management?**
  - *UNOCT: see [NATO - News: NATO and United Nations working together to strengthen Jordan's security and defence capacity against terrorist threats, 05-Mar.-2019](#)*

- *OPCW [thought not an UN Organisation: previously joint exercises Joint Assistance 2005 held in Ukraine (carried out together with NATO/EADRCC)]*
- **Would you be open to answer some additional question in the future if it would be needed?**  
no
- **Are there any last remarks or statements that you would like to make?**  
n.a.



## Annex 14 Interview UNODA

*This interview was not recorded. The information stated here is based on notes taken during the interview.*

**You have stated that the cooperation with NATO is limited at the moment to conferences, meetings, and delivering lectures at NATO School in Oberammergau. So, there are no specific common projects between the ACDC and UNODA? Mainly meetings on political level?**

- The BWC Implementation Support Unit has no common projects with NATO. It is possible that other UNODA units may have some common projects with NATO, but the interviewee does not possess knowledge about that.

**All the meetings with NATO are on an annual basis or are some more frequent?**

- The BWC Implementation Support Unit serves as the Secretariat for the official BWC meetings. During most recent 2018-2020 intersessional programme, NATO/ACDC attended the 2018 Meetings of Experts. The BWC ISU attended the 2019 Annual NATO WMD Conference. The BWC meetings that were scheduled to take place in 2020 (i.e. BWC Meetings of Experts and BWC Meeting of States Parties) were postponed into 2021 and held as in-person events.

**What exactly is taught to NATO personnel at Oberammergau?**

- A presentation is given to NATO personnel on the BWC.

**How are the lessons structured? Is it one lecture per month or is it an annual presentation at Oberammergau?**

- Requests to the ISU for presentations at the NATO School have been made on average at an annual basis.

**Do you sometimes get contacted by NATO outside of the usual conferences and meetings for issues pertaining to BWC (Biological Weapons Convention)?**

- The BWC Implementation Support Unit does not get contacted by NATO except for such type of events.

**You have stated that you have not noticed any cultural differences when working or interacting with NATO, is that correct?**

- Yes, the interviewee does not notice many/distinct cultural differences. Most interaction has taken place around official conferences, where cultural differences were not evident.

**How would you rate the current cooperation that you have mentioned?**

- The cooperation is mandate-driven. UNODA receives invitations and requests for lecturers, conferences, and meetings. Cooperation during these events were very good. Therefore, the interviewee does not have a negative view of the current cooperation status.

**Would you like to see the cooperation between NATO and UNODA be expanded?**

- The interviewee states that the cooperation is based on the mandate of each organisation. At this stage, the interviewee does not see much room to expand the cooperation beyond the current activities.

**You say that the mechanism of collaboration with NATO is to some extent based on informal, personal contacts. But do you have any other formal documents for your cooperation with NATO-like bilateral agreements?**

- There are no bilateral agreements between the ISU and NATO (not aware of any agreements between UNODA and NATO either). Cooperation is based primarily on mandates of the involved organisations; Personal contacts between UNODA and ACDC staff members facilitated in the past the info exchange concerning upcoming conferences and events.

**If you would want to cooperate with the ACDC on something, how do you contact them? Informal contacts, liaison officer, or some other way?**

- If NATO would like to engage with the ISU, communication would need to go through formal channels. The interviewee is not aware of the presence of a NATO liaison officer in Geneva and has not had contact with such a person since 2016.

## Annex 15 Interview EADRCC

**Interviewer: I understand that you consent with this interview being recorded?**

Interviewee: Yes, I do.

**Interviewer: Yes Okay. So, I'll briefly introduce myself and state what the purpose of the interview is. My name is Aleks Kozuchowski. I am an intern at the JCBRN Defence Center of Excellence, and I am writing a research paper on NATO and UN cooperation. The aim of the study is to see how NATO and UN cooperate in crisis management operations, and more specifically, CBRN crisis management operations including disaster relief, and identify weak points in this cooperation. EADRCC is important as it is the main communication point between NATO and the UN. Could you tell me about your position in EADRCC and what that position entails?**

Interviewee: I am the Deputy Head of the EADRCC since 2019 so whenever the Head is not there or when we're split like in COVID-19 I assume that position.

**Interviewer: Okay. So, the EADRCC is the main communication body between NATO and the UN as I understand it. The main communication body of the UN is UNOCHA. However, there are other UN bodies that are involved in crisis management operations. Do you only cooperate and communicate with UNOCHA or also other UN bodies?**

Interviewee: No, we also cooperate with, for example, the World Food Program who are basically the UN logistics body. With the World Health Organization for example but also others, other entities of the UN. For example, during our exercises we also work with UNHCR, with IOM, the Office of Counter-terrorism, you name it. We can reach out to them. It's not just UNOCHA. But UNOCHA is indeed the most important one.

**Interviewer: Okay. So, when it comes to UNOCHA specifically, could you tell me what the collaboration mechanism is? Like are there any standard procedures to start collaboration when a crisis happens?**

Interviewee: There are of course. Whenever the EADRCC does something, we do inform UNOCHA. So, when it comes to international disaster response UNOCHA remains in charge. I assume you may have heard from my presentations earlier on, is that the EADRCC does not take command and control, we only coordinate. So, whenever there is a disaster, whenever man-made, natural, technological, you name it, and there is an international component to it it's either UNOCHA or the European Community that takes control. So UNOCHA and Europe have an agreement between themselves with the lead of international coordination, but we always report to UNOCHA whatever we do.

**Interviewer: All right, and is there any like, bilateral agreement between UNOCHA and EADRCC about collaboration or something like that?**

Interviewee: That's in our mandate so... our mandate that we created in 1998 states that whatever we do, we do cooperate with... we do inform UNOCHA. And we sometimes need the consent of UNOCHA to go ahead.

**Interviewer: Okay great. So, just one more question about the specific mechanism. Like if a crisis happens UNOCHA... in what timeframe do they contact you? Because they can ask for support, for example during the COVID-19 pandemic.**

Interviewee: That's different. You have one side UNCOHA who is in control of the response. So, whenever we send out a request for assistance internationally, we will inform UNOCHA. On the other hand, UNOCHA is also the only international organisation at this particular moment that we are mandated whenever they ask support within the Euro-Atlantic area, to immediately respond to them and to act on their request. If it comes from outside the Euro-Atlantic area, like the military and civil-defence assets request during COVID-19, then we go to council first to get the approval of our ambassadors to provide support. So, you can see UNOCHA can both be the requester but on the other hand, UNOCHA is also the controlling body when it comes to international response.

**Interviewer: All right. So, the EADRCC also organizes workshops, table-top exercises, and seminars on response to emergency situations. Also, large-scale exercises are also organized as far as I found. The dimension of CBRN incidents is also present in these workshops, exercises, and so on. So, does the UN, UNOCHA or any other body cooperate in these exercises? Like, specifically CBRN but also other exercises or has the UN shown any interest?**

Interviewee: They do cooperate, both UN and EU. This year in North Macedonia it was a little bit more restricted, so we had to scale down but also the UN and EU were very busy responding to COVID, so they did not participate as they usually participate. For example, in Serbia the on-site operations and coordination center was led by the UN and the deputy was somebody from the European civil-protection mechanism. So, they do participate in our exercises but in the planning, as well as the conduct, as well as the evaluation.

**Interviewer: Okay. So, a person from the OSOCC? A person from the UN or a representative specifically in that?**

Interviewee: Yes, and not just specifically in that. For example, in North Macedonia, we had somebody who provided advice on irregular migration. So... it's also noteworthy to note there are exercises, the practical implementation and the execution is based on UN model. So, the model that UNOCHA advocates in their disaster response is also what we use in our exercises. So, when first responders arrive at the exercise or at the scene, they are familiar with what's happening and how the mechanism works.

**Interviewer: Okay. So, would you say that you are satisfied with the current cooperation with the UN let's say, in these exercises? Or also in general?**

Interviewee: Yes.

**Interviewer: Do you have any things that you think should be improved?**

Interviewee: Well, you can always deepen the cooperation and do more, but I think that at the current level and within the current situation that we are UNOCHA has done everything they can to support us.

**Interviewer: Okay. So, there is not like a main big issue that you're, like struggling with?**

Interviewee: No. You have to see this as... they're very busy also. So, the fact that for example, they wanted to provide us support during the last exercise in North Macedonia, but virtually. But the consult of our exercise and the complexity of our exercise in this particular case to cope with COVID-19 did not allow us to use that. And then UNOCHA said immediately without any regrets, then you look at UNDAC members so United Nations Disaster Assessment Coordinators, and we were free to use them as

necessary. And we had 2 UNDAC members leading the OSOCC in North Macedonia. So no, the cooperation with UNOCHA is very good I would say.

**Interviewer: Okay. You mentioned the OSOCC. So, I understand that NATO also uses the OSOCC during disaster responses or like crisis management operations. That's correct right?**

Interviewee: The OSOCC is established by the UN. Not by us.

**Interviewer: Yes. Sorry I meant the virtual OSOCC if there's like a crisis...**

Interviewee: Yes, we use the virtual OSOCC indeed.

**Interviewer: Yes. When it comes to the virtual OSOCC, are there any bigger problems that you have encountered with it or anything?**

Interviewee: No, it's a bit of a hierarchic tool. It's not the most user-friendly one but it works.

**Interviewer: Okay. So, there is not like, a problem or problems that have been encountered by NATO disaster response or crisis management members or personnel?**

Interviewee: No but the EADRCC are the only ones who are accessing the virtual OSOCC as far as I know. So, you will not see, when there's a crisis management exercise, CMX for example... there the virtual OSOCC is not used of course. Just when it comes to humanitarian disaster response then, we will contribute to the virtual OSOCC.

**Interviewer: Okay. My second question or next question is, and I'll clarify it a bit. The question is, is the EADRCC resource dependent on UN or UNOCHA in any way and with that I mean, do you need certain resources, for example like experts, expertise, legitimacy, or something to perform your tasks successfully?**

Interviewee: No. We are completely independent. What we can do and what we've done during COVID-19 is to reach out to them and set up a liaison officer mechanism. So, we kept them in the loop as they kept us in the loop. But we are not dependent on one another. At all.

**Interviewer: So, when it comes to that liaison officer, you said that was established during the COVID-19 pandemic so that was only for that operation as I understand it?**

Interviewee: Yes.

**Interviewer: Okay. Do you think that NATO has adequate response capabilities in case of a disaster, and specifically CBRN disaster?**

Interviewee: That's a good question. We have the inventory. The CBRN inventory but that has not been updated for a while. So, I'm actually looking right now at how we can revitalize that. But NATO itself does not have response capabilities. It's always coming from the nations. The assets are coming from the nations, not from NATO as an entity. So, it's the nations who respond. So even with that inventory, we know what kind of assets the nations who voluntarily contributed to it have. But it's not guaranteed that we can always use those assets of course. It's always a national decision to deploy them or not.

**Interviewer: Okay. When it comes to... that's very interesting about the asset inventory...**

Interviewee: And I'm talking civilian here.

**Interviewer: Yes. When it comes to that I haven't found anything on that specifically if that's of course unclassified information or if I may ask, what is that CBRN assets inventory?**

Interviewee: I can send you the copy of the inventory. There are basically 20 categories in there going from decontamination, identification, and decontamination teams through medical supplies, inland-water transport, field hospitals, hospitals, emergency, road transports, stuff like that. So basically, a list of capabilities that nations have that could be called upon or requested in case of a CBR incident. We don't do nuclear; you know that right?

**Interviewer: Yes. So, you say that that inventory is a bit old. It has to be a bit newer you say.**

Interviewee: It has to be updated.

**Interviewer: It has to be updated. When was the last time it was updated?**

Interviewee: 2017.

**Interviewer: 2017 Okay. And it has to be updated in specific categories you think or...?**

Interviewee: I would be searching the JCBRN Defence Centre of Excellence their expertise to see if we need to update it to include more recent capabilities maybe. And then release it to the nations again together with the data they have provided earlier and have them update their inventory, for those who haven't done it.

**Interviewer: Okay. Well, one of the other capabilities for like disasters that NATO has is the CBRN Task Force when it comes to CBRN specifically. But as I understand you have no influence on that. Or do you actually do have some influence on the CBRN Task Force when it comes to non-conflict situations?**

Interviewee: We participate in the CBRN Task Force.

**Interviewer: Okay. Could you expand on that a bit more?**

Interviewee: Well recently we have been so busy with the rest, we are limited in person, so we have not participated in the Task Force. But we have 3 items, including the inventory, that are part of the goals of the CBRN Task Force, which are monitored by the CBRN Task Force.

**Interviewer: All right. So, you say, if I might ask, also a bit understaffed when it comes to the EADRCC? Would you say or not? Because you said that you didn't have...**

Interviewee: It's all COVID-19 related of course. When you know that there are 2 international staff members assigned to the EADRCC, we have one voluntary national contribution and temporary hires to do all the work... that's a lot of work for 5 people of course.

**Interviewer: Yes, I see. My next question is about the specific timeframe, I'll just ask it. If a nation or UNOCHA requests aid from the EADRCC, in what time can the EADRCC mobilize the needed resources like disaster relief or manpower to send it to the disaster-stricken nation or site? Like is there a specific timeframe that you're aiming for?**

Interviewee: We don't have any resources ourselves. So, the only thing, what we usually do is, we have 24 hours to respond to requests for international assistance. We usually do it within the hour. Within the hour of receiving the request, we usually distribute it to the Allies and to 38 out of 40 partner nations as well as a number of international organisations. So that's one part. What we can do is put together advisory support teams or rapid reaction teams. Advisory support teams, there is no matter of urgency that is more in need of preparedness kind of phase where you use those, and they do an evaluation, and they share that evaluation with the nation who asked it. The Rapid Reaction Team has never been called upon. But that could also be established and deployed within 24-hour or 48-hour notice.

**Interviewer: Okay. So, a rapid reaction team is also like a capability.**

Interviewee: It's a capability but it's never been called upon.

**Interviewer: Okay. So, when can such a team be called upon if it's such a...?**

Interviewee: Anytime. Anytime.

**Interviewer: So anytime there's like a very big disaster and you think that would be needed...**

Interviewee: Yes, but you should understand that usually the nation itself, the civil-protection mechanism or UNOCHA have people immediately in theatres. So, the chances of requesting a rapid reaction team are pretty slim, I think.

**Interviewer: I have also read in several sources that the EADRCC works through the so-called "clearing house mechanism". Could you explain a bit to me what that exactly entails?**

Interviewee: So, the clearing house mechanism is basically the request for international assistance and the coordination of it. When a nation is stricken by a disaster, the first thing they usually do is look within their own capabilities if they can solve the problem. If that doesn't work, you reach out to your neighbouring countries and your bilateral agreements. When those capabilities are insufficient, together with your national capabilities, that's when you reach out to international organisations such as NATO and EADRCC, the EU, or UNOCHA. And you issue a request for international assistance. We take that request, we process it together with the nation, we look at what they need and what capabilities they need, and we distribute it to all 68 nations as well as a number of international organisations. Then our role is basically done. We follow up, we coordinate, we help them coordinate. But it's always the stricken nation that decides whether or not to accept international assistance. So that's the clearing house mechanism in short.

**Interviewer: Thank you for the explanation. So, there are certain mechanisms, several mechanisms that the EADRCC can be called upon as I understand. It can be called... a request can be done through UNOCHA but also a nation-state itself can ask the EADRCC for help, like request.**

Interviewee: Which is usually the case. (Referring to EADRCC being called upon by individual nations)

**Interviewer: So, what happens when a nation asks NATO and UN separately. Is the mechanism of communication between the UN and EADRCC suddenly changed because it didn't come straight from UNOCHA? Or does it work the same?**

Interviewee: No, usually the request comes from the nation itself. We've had this far 2 or 3 requests from UNOCHA in our existence and one of UNHCR. But usually, it's the nation itself that requests assistance

through us and then we inform UNOCHA about that request. And we keep them updated about what assistance we are aware of that has been provided.

**Interviewer: Okay. So, when it comes to cooperation between UNOCHA and EADRCC, there's communication going on. Is there also like, a joint decision-making mechanism between UNOCHA and EADRCC?**

Interviewee: No. Only coordination. The UN is their own authority as we are. So, we keep each other informed about the decisions taken within our own organisation, but we have no influence on each other's decisions.

**Interviewer: Okay. So as stated earlier the UN and NATO have collaborated during the COVID-19 pandemic. Could you tell me how you would rate this cooperation? And if there were any problems that you have identified during that?**

Interviewee: It took a while before we were aware of the MCDA request. Then it took a while before it materialized but once it was there NATO was able to provide support through airbridge. And we were ready to provide more. But by the WFP, as I said who are the logistics branch of the United Nations has also sorted out their own problems. So, it stayed with one air bridge, 5 or 6 flights.

**Interviewer: Okay. But you said that it took a while to, for the request, to be processed.**

Interviewee: That was their own... we knew that the request was coming but before the official request was issued that took a while. But that's completely within the UN processing of course. So, the good thing is that, as the coordination already worked, that we knew that it was coming.

**Interviewer: Okay. So, you knew that it was coming so UNOCHA people already told you that it was coming? There was already information exchange about it?**

Interviewee: Yes. There was information exchange about that through the liaison officers.

**Interviewer: All right. Great. Are there any unclassified or open-source documents that I could get on the COVID-19 case?**

Interviewee: From the MCDA? Yes of course. If you go to the NATO website, the EADRCC pages, you will find all the requests for assistance there. Including the one from UNOCHA.

**Interviewer: All right thank you. So, you say that it's basically in the mandate to cooperate with UNOCHA so you just... there is not like a specific legal mechanism between you and UNOCHA to communicate?**

Interviewee: No.

**Interviewer: Okay. So, I found in my research also that sometimes there are communication problems between NATO and UN due to over-classification of documents and information. Is that also the case during disasters between UNOCHA and you? Did you encounter problems?**

Interviewee: No. The EADRCC, when it comes to natural disasters, works with NATO unclassified releasable to...

**Interviewer: Okay. And when it comes to CBRN disaster?**



Interviewee: The ones we've had they were unclassified. We shared the information with UNOCHA as far as I know. But it was before my time I must admit.

**Interviewer: All right. Have you encountered any miscommunication with the UN due to different terminologies or use of words?**

Interviewee: No.

**Interviewer: No? Okay. Even in legal documents, requests?**

Interviewee: We don't, as EADRCC, we are not a policy-making entity, we are operational. So, we don't really share legal documents. That would be different levels or different sections would do it.

**Interviewer: Okay. So, after a crisis management operation, is there a reflection phase where both UNOCHA and EADRCC look at what could have been done better regarding, for example, communication or crisis response in general?**

Interviewee: We invite them, especially during exercises, we invite UNOCHA to participate in the evaluation. If there is nothing peculiar about the disaster response, there is nothing to be done. They have their own evaluation mechanism, and we have ours. And again, we coordinate. So, it's always... the decision-taking is within the stricken nation. So, we don't have much influence there of course.

**Interviewer: Okay. But let's say, for example, after the COVID-19 pandemic. Was there a phase where you both looked at if this could've maybe been done better or something like that?**

Interviewee: We're still in COVID-19 so...

**Interviewer: Yes, but after that airlift operation let's say.**

Interviewee: After the airlift? We reflected on it, yes, but there has not been an official document on it.

**Interviewer: Okay. So, last year a COE study discovered problems in the cooperation between the EU and NATO. The problem was that, during crises, both the EU and NATO would get offered the same crisis management units from nations, which created the illusion that the EU and NATO both could offer crisis management assistance, but of course there was only 1 of that crisis management unit even though both organisations claimed that they could offer it. Have you encountered such a problem with the EADRCC and is that still a problem let's say, between UN and NATO?**

Interviewee: It is still a problem I would say. And it's basically a national problem, not deciding to whom to assign the units. What we have noticed during COVID-19, there were few nations that requested the same assets from both the EU and NATO. So usually the request for assistance, some nations turned to both organisations of course, but there was not much overlap in what they requested. So, they were not fighting for the same assets.

**Interviewer: And between the UN and NATO? Because you said EU and NATO but between the UN and NATO, is there also such a problem? The same problem exists?**

Interviewee: No.

**Interviewer: No? Okay. So, right now, what do you think is the biggest problem in cooperation between NATO and UN in crisis management according to you?**

Interviewee: The biggest problem I think is knowing who to talk to and in what case. The UN is very structured and fractured so that I would say is to keep everybody informed about what we're doing. We have to talk with a lot of entities within the UN.

**Interviewer: Okay, so it's not like you talk to UNOCHA and UNOCHA doesn't spread that information to other bodies of the UN? You have to do that yourself?**

Interviewee: We do that ourselves.

**Interviewer: Okay I see. And any other problems that you think could be? Like, this one was the first... the main 3 problems and this one was the first? If you can think of any.**

Interviewee: Right of the bat I can't think of any. As I said everything is based on cooperation so it's all about willingness and with UNOCHA the willingness is pretty OK I would say. Also, with WFP and WHO by the way.

**Interviewer: Okay. So, have you ever encountered any cooperation problems due to a different culture? Like norms and values because of different organisational culture? Maybe you have encountered some problems with that?**

Interviewee: We are continuously fighting about if the military is the last resort. That's a worldwide problem. I know UNOCHA, from the informal talks I know they're not happy about it themselves. Especially when it's permissive, and another environment and it's a complex emergency it would be useful to, to be able to quicker approach the military and have them deploy their capabilities as military. That I would say.

**Interviewer: Okay. Could you maybe also recommend me anybody else to contact about CBRN disaster management cooperation between the UN and NATO?**

Interviewee: One person you definitely need to talk to is (name of person).

**Interviewer: Yes, yes, I already have contacted him, but he hasn't responded back yet.**

Interviewee: But he will, he is a good guy. He's very busy but when he can, he will help you, I'm sure. And he's more on the policy side the NATO life so he'd be better able to answer those questions about difficulties and legal documents.

**Interviewer: Okay, and when it comes to this topic, could you recommend me any, for example, sources like papers and doctrines or something like that that I could look into? You already stated that you could provide me the source about the CBRN capabilities or assets. Is there anything else that you could recommend to me?**

Interviewee: Specifically, CBRN-related not immediately.

**Interviewer: And just cooperation in crisis management?**

Interviewee: I can provide you an old version of what we call the matrix. So, you have an idea with what has been done in regard to COVID-19. That would be it of the top of my head actually.

**Interviewer: Yes, anything at all is already good. Thank you very much. If those two you could provide to me then that would be great.**

Interviewee: No worries.

**Interviewer: Would you be open to clarify some information in the future through email or maybe even another interview if it would be needed?**

Interviewee: Sure, no problem.

**Interviewer: Yes, so are there any last remarks or statements that you would like to make?**

Interviewee: Not from my side.

**Interviewer: From my side neither. I think I have exhausted all my questions. Mr. (name of interviewee) thank you very much for your time doing this interview. It was very informative.**

Interviewee: You're welcome.

#### **Post-interview clarification questions through email exchange**

**Interviewer: I had some clarification questions on the aid request mechanism of NATO that I have not asked during the interview. NATO Members can request aid, as well as UNOCHA. Could you tell me if non-NATO Members who are in an agreement with NATO (such as Partnership for Peace or Istanbul Cooperation Initiative members) can directly request support from EADRCC in case of a disaster? Or do they have to go through UNOCHA? As for non-NATO Members that are not part of any cooperation initiatives (such as PfP and ICI) I understand that they can only request aid from NATO through a UN body like UNOCHA, is that correct?**

Interviewee: All Allies (30) and partner nations (40 – Belarus – Russia) and UNOCHA can directly request assistance to the EADRCC. No need to go through UNOCHA or Council. For all other nations and IOs, we can provide support upon Council approval.

**Interviewer: I had a question about the quantity of the exercises the EADRCC organizes. From one of my sources called "NATO's Involvement in Humanitarian Operations/Disaster Response" (2017) it is stated that the EADRCC holds large field exercises annually. However, I have heard different information at the JCBRN Defence COE that the EADRCC holds these exercises bi-annually since 2018. Is this correct or does the EADRCC still hold the exercises annually? Thank you in advance for your answer.**

Interviewee: Our intent is to have these exercises annually. However, COVID has made life a little more complicated. We, however, do not guarantee yearly exercises. I know, sounds contradictory, sounds it not? Bottom line: we try to organize them annually, without guaranteeing it.

## Annex 16 CIMIC COE email exchange

<p>The CIMIC COE develops doctrines and guidelines on civil-military cooperation. The UN also has its own concept of civil-military coordination (UN-CMCoord). Does the CIMIC COE cooperate to some extent with the UN on this matter (doctrines, research, exercises etc.)?</p>	<p>CCOE’s main customer is NATO. So, a main task is the support to NATO CIMIC.                  CCOE serves the four pillars every NATO accredited COE is serving:</p> <ul style="list-style-type: none"> <li>- Education and training</li> <li>- Analysis and lessons learned</li> <li>- Concept development and experimentation</li> <li>- Doctrine development and standards</li> </ul> <p>(CCOE branches are T&amp;E Training and Education: Pillar 1; LL&amp;A: Pillar 2; CIC – concepts, interoperability, capabilities: Pillar 3+4)</p> <p>CCOE supports EU-CIMIC:                  CCOE functions as Discipline Lead for EU-CIMIC training and education. (Similar to Department Head function for ETEE [education, training, exercises, experimentation] in NATO)</p> <p>To the question: Yes:                  CCOE supports UN-CIMIC (UN-CIMIC is a military function of UN military force comparable but not identical with NATO CIMIC) and other related UN policy and doctrinal development:</p> <ul style="list-style-type: none"> <li>- Contribution to current UN-CIMIC policy development</li> <li>- Contribution to UN Engagement Platoon (EP) Concept and Handbook</li> </ul> <p>CCOE cooperates with UN-CMCoord (civilian function of UNOCHA):</p> <ul style="list-style-type: none"> <li>- Cooperation/hosting of UN-CMCoord Course</li> </ul> <p>The CCOE also supports NATO doctrinal development and training and education concerning NATO cross-cutting topics (CCT). CCTs are NATO policies and concepts largely based on UNSCR resolutions thereby ensuring the Alliance’s commitment to UN agreed topics.                  (See additionally provided references)</p>
<p>If yes: What kind of efforts are made to improve cooperation?                  If yes: how would you describe NATO-UN cooperation? Do you think there is room for improvement?</p>	<p>CCOE has contact with UN agencies on different levels and over different thematical areas. Constant exchange of information and upholding liaison should ensure further improvement of the cooperation.                  Current concrete example is the support of the UN EP Concept development [Participation in virtual WS this</p>

	week, 22/23nov21; participation in presence WS in Jan22]
(If the answer to the previous question was “yes”) How would you rate the communication with the UN? Are there any problems due to different standards on information sharing or use of terminology?	<p>Terminology is always a challenge in inter-organisational communication.</p> <p>Between NATO CIMIC and UN-CIMIC (this is military to military communication!!) this becomes apparent in policy, concepts, and doctrine. UN-CIMIC is to some extent influenced by NATO CIMIC and uses similar terminology; as the UN policy and doctrinal development is –naturally – separate from NATO, including other interested UN member states the same words/terms may be defined differently in NATO and UN doctrine.</p> <p>This of course creates challenges in communication and interoperability, but it does not constitute critical obstacles.</p> <p>Between military and non-military organisations also language / terminology can always create challenges. A core skill within CIMIC and CMI is actually the knowledge of existing differences in terminology (and organisational culture) and the ability to interpret / bridge language and culture gaps.</p> <p>Education and training of these skills is already integrated in NATO CIMIC and also in UN-CMCoord training but should always be further improved.</p>
(If the answer was “yes” to the first question) Is the CIMIC COE resource dependent on the UN in any way at the moment (clarification: does the CIMIC COE require certain resources, for example expertise, experts, legitimacy, to perform its tasks successfully)?	<p>NATO’s comprehensive approach within the rules based international order (RBIO) is largely interlinked with the UN system.</p> <p>The CCOE working in the fields of the above mentioned four COE pillars for NATO CIMIC and CMI has to and does liaise and cooperate with relevant UN agencies.</p>
You said that you do/don’t (depends on first question) cooperate with NATO on CIMIC. Do you cooperate with other non-military partners on this topic?	<ul style="list-style-type: none"> <li>- NATO is our main customer, CCOE is a NATO ACT accredited COE.</li> <li>- CCOE also serves as discipline lead for EU CIMIC training and education.</li> <li>- CCOE cooperates with UN military (DPO, OMA) and non-military UN actors (UNOCHA etc.)*</li> <li>- CCOE cooperates with a diverse range of other non-military actors (academia, think tanks, etc.)</li> </ul>

<p>Do you think the current NATO CIMIC doctrine is sufficient to use during NATO non-conflict disaster management operations? Is there something that you think could be improved?</p>	<p>The main focus of extant NATO CIMIC doctrine is crisis management (CIMIC and CMI in complex emergencies i.e., conflict related)</p> <p>Current and further development of policy and doctrine is stronger focusing on CIMIC and CMI in the NATO core task “collective defence”/deterrence and defence/resilience/NATO Treaty Art 3 to Art 5</p> <p>“non-conflict disaster management” can be looked at as a subtopic within peacetime / Art 3 / general resilience.</p> <p>Nevertheless, I do not see the issue of “non-conflict disaster management” as one needing substantial improvement. Emergency/Disaster Management is in the first line an issue dealt with under national sovereignty – NATO is providing support via EADRCC as a clearing house brokering information /matching listed resources to reported needs to enable bi-lateral support between nations.</p>
<p>Which doctrinal differences between the NATO CIMIC and UN-CMCoord have you identified, if any?</p>	<p>NATO CIMIC is a military (joint) function. UN-CMCoord is a non-military function of UNOCHA.</p> <p>Military and humanitarian organisations have in mandate, intermediate objectives, and organisational culture.</p> <p>Nevertheless, they generally share a mutual interest in a unified outcome.</p> <p>NATO CIMIC and UN-CMCoord coming from two different sides have the common purpose to enable mutual understanding and interaction to facilitate at a minimum de-confliction at optimum cooperation towards a shared unified outcome (See UNOCHA references, AJP-3.19 extant: levels of cooperation)</p>
<p>A doctrinal gap may affect further NATO/UN operations negatively. Do you have any recommendations on how to close this gap in doctrinal differences?</p>	<p>Constant liaison. Constant exchange of information. Constant mutual participation / integration in concept and doctrinal development. Exchanging LI/LL.</p>
<p>(If there are significant doctrinal differences) If the NATO and the UN cooperate during an operation (be it in the context of conflict or non-conflict), which civil-military cooperation doctrine of these two organisations has</p>	<ol style="list-style-type: none"> <li>1. National sovereignty!</li> <li>2. UN System, UNOCHA, UN GDACS, OSOCC</li> <li>3. EUCPM</li> <li>4. NATO CEPC / NATO EADRCC</li> </ol>

supremacy? Are there any specific rules or guidelines to synchronize the differences? Or do both organisations just follow their own doctrine (If the doctrine applies differently to conflict and non-conflict operations, could you specify what the exact application differences are)?	
May I ask what your cooperation with the JCBRN Defence COE looks like at the moment?	<ul style="list-style-type: none"> <li>- Participation of SME in doctrinal development writing teams</li> <li>- JCBRN Defence COE WS “civ-mil discovery experiment”, 09-11feb21</li> </ul>
Would you be interested to work more closely with the JCBRN Defence COE on CBRN disaster management issues and CIMIC within that context?	Within means and capabilities 😊, of course
Could you recommend me any sources (papers, doctrines etc.) or contacts to the NATO or UN that I should look into or contact regarding the topic of NATO-UN cooperation in disaster management (specifically CBRN disaster management if that would be possible, but the broad context of disaster management is also good)?	<p>OSLO guidelines MCDA guidelines</p> <p><a href="https://vosocc.unocha.org/">https://vosocc.unocha.org/</a></p> <p><a href="https://michaelharsch.org/book/">https://michaelharsch.org/book/</a> (?? Random find))</p>
Would you be open to clarify some information in the future through e-mail if it would be needed?	Yes

\*DPO: Department of Peace Operations & OMA: Office of Military Affairs

## Annex 17 Interview CIMIC COE

**Interviewer: This interview is being recorded. I understand that you consent to that, right?**

Interviewee: Yes.

**Interviewer: Okay, so I'll briefly introduce myself and talk about the purpose of this interview. So, my name is Aleks Kozuchowski. I am an intern at the JCBRN Defence COE and I'm writing a research paper on NATO-UN cooperation. The aim of the study is to see how NATO and UN cooperate in crisis management operations, and more specifically CBRN crisis management operations, and identify weak points in this cooperation. NATO is primarily a military organisation while the UN is primarily a civilian organisation, therefore the CIMIC COE is potentially relevant for this study. You are a member of the CIMIC COE. Could you tell me about your position in CIMIC COE and what that position entails?**

Interviewee: First of all, I would like to say that NATO is a political organisation with a strong point in military. And not a military organisation, that is something that should be noted. Because when we look at civil preparedness then we have the assets and units in the NATO headquarters. As for example CEPC, Civil Emergency Planning Center, which is civilians and political. So, I wouldn't say that NATO is a military organisation. It's a political organisation in the first place. Of course, with a strong military focus.

**Interviewer: Okay, yes. Then my question was, could you tell me more about your position in the CIMIC COE and what that position entails?**

Interviewee: I'm a staff officer and a subject matter expert in the CIMIC Center of Excellence, working in the so-called concepts, capability, and operability branch. So mainly I'm working in the field of concept development and doctrine development.

**Interviewer: Okay, thank you. So, in the morning you have already provided me with a document answering my initial questions. I want to thank you for that. And based on that document I have made some additional questions to clarify certain points, certain topics. If some information is confidential then you of course don't have to answer that. So, in the email, you have stated that the CIMIC COE supports UN-CIMIC and other related UN policy and doctrinal developments. Could you describe to me the mechanism of this cooperation? So how it's initiated, who contacts who, and how contact is kept?**

Interviewee: Largely the doctrinal and concept development support has partly been initiated through the German national channel. So, the German MOD was requested to support the German representation at the UN. And then reached back to us for subject matter expertise to contribute to the concept and doctrinal development. In the example I mentioned in my written response. Like the development of the UN-CIMIC policy and also the current development of the UN engagement platoon concept. Nevertheless, there is also direct cooperation between the CCOE with UN agencies like, for example, UNOCHA.

**Interviewer: And how do you cooperate exactly? Like, how is it initiated, how do you keep contact?**

Interviewee: At the moment me personally, I am participating in working groups. Working on the development of concepts. So, it's the personal participation in working groups. The other line is, not in our branch but in the training and education branch, there is maybe something you might want to follow up, that is the cooperation with UNOCHA in the conduct of the UN-CMCoord courses. So, this is something coordinated with our training and education branch who regularly support the courses of UNOCHA.



**Interviewer: Okay. Thank you. I wanted to ask you if, well, are you satisfied with the current level of cooperation the CIMIC COE and the United Nations?**

Interviewee: I don't have any scale measuring my satisfaction concerning that. I mean the UN is a very huge system, so you cannot cooperate with each and every branch and agency within the UN. So, it's always a question of selection and a question of available capabilities. But generally, I would say the contacts to relevant UN actors is given. And exchange is happening. So, there is cooperation. Like with everything, it could always be enlarged and enhanced. But generally, I would say it's given.

**Interviewer: All right yes, I should have specified between the United Nations bodies that you specifically cooperate with, so as you said UNOCHA regarding UN-CMCoord. That's what I meant.**

Interviewee: The UN-CMCoord that is something I hope you can follow from my written response. Because you drew the direct line concerning the operability between UN-CMCoord and NATO CIMIC. You have to understand that these are counterparts. NATO CIMIC is the military function, the joint function, of NATO military dealing with understanding the civil environment, dealing with liaison to the civil environment, and non-military actors, and integrating them into the military planning. While UN-CMCoord is specifically a civilian function of UNOCHA. To enable UNOCHA's communication and coordination with the military. Additionally, in the UN you have UN-CIMIC, which is more or less similar to NATO CIMIC, a military function.

**Interviewer: Okay yes, I understand. Thank you for the explanation on that. So, you talk about cross-cutting topics, and in your email, you have stated that you have provided additional references. Could you tell me which references in the document you're referring to exactly?**

Interviewee: I didn't provide them yet, but I named one or two of them. I don't know if you already had a look to it, when you look at the second last line, the Oslo guidelines, and the MCDA guidelines. Are you familiar with those?

**Interviewer: Yes. I am familiar with those. I wanted to have it clarified if you actually meant those or if you also meant to send something else that maybe wasn't attached to the email. So that was actually everything I wanted to know.**

Interviewee: Yes so, they are the main ones. I also inserted the link to the virtual OSOCC. OSOCC is the on-site operation and coordination center generally installed by UNOCHA when it comes to disasters in areas where the respective nation's government is not willing or not able to respond. Or needs support to respond. So, I don't know if you're familiar with the OSOCC system? That is actually something to look into. Because this is where there are connection points for the nations to fit into the UN disaster response system.

**Interviewer: Yes, I have looked into that for my research. Although I had some additional questions about that if you would know, but I will go to them later on. In your email, you state that constant exchange of information and liaison ship should further improve cooperation. So, my question is how the information exchange is... looks like between CIMIC COE and the bodies that you have already mentioned. You have stated a bit about it but like, the specifics of the mechanism, you said that it's through the German Ministry of Defence you said? Or...?**

Interviewee: Yes, that was partly the way of how the doctrinal support was initiated. When it comes to the training and education there is a standing cooperation between the CIMIC Center of Excellence and UNOCHA. I would actually suggest you to contact our branch chief of our training and education... I can send you his contact details.

**Interviewer: Yes, that would be very great.**

Interviewee: I think he can give you more info on this about that.

**Interviewer: Thank you. I wanted to ask, because you also state that, in your email, you state that constant exchange of information and liaison ship should further improve cooperation. Under liaison ship, I understand that there is like a standing officer from let's say, UNOCHA, with you. Or one of your officers with UNOCHA. So, is there any liaison right now between CIMIC COE and UNOCHA? And if so, how does it look like.**

Interviewee: As I just said there is cooperation between our training and education branch, and I will provide you with the contact of our branch chief of training and education.

**Interviewer: Okay great. I thought that maybe you would also know something about it, but I'll ask the chief of branch.**

Interviewee: As I said I know that they're cooperating concerning the courses. But there is not a standing liaison officer. But the contacts are known.

**Interviewer: Okay. You also stated in your document, in the email, that terminology is sometimes a challenge in policies, concepts, and doctrines although both organisations are trained to counteract this. Could you give me a few examples of terminology differences that you've encountered between the CIMIC COE and UNOCHA as you cooperated with them?**

Interviewee: You have different use of language and terminology between all organisations. So, a civilian organisation always has a different use of terminology than a military one. So, I don't have any example now between UNOCHA and NATO CIMIC. I don't have any concrete example concerning that. For example, I have some examples between UN-CIMIC and NATO CIMIC. As I already stated in my written response, there are terms used within NATO when it's already a challenge to have the common understanding within NATO interoperability-wise because also within NATO you have different nations and terms implemented in the national approach, which may slightly differ in the application between different NATO Members. And of course, when you now look at UN, then it differs again. So interoperability is the constant process of trying to align the understanding of certain terms, And I don't want to name any example because that would narrow it too much, that you have certain terms where the same words are used while their understanding is slightly different. I give you an example away from NATO and away from UN because it's a generic challenge and a generic thing to work with. When I look at Germany and you take the military, police, and firefighters. All of them use the word "angriff". The literal translation of angriff is attack. For the military angriff means "gain territory, or take territory, and destroy enemy". For the police, angriff means something different. Also, probably movement but arresting or incapacitating a perpetrator of crime. While for the firefighters they also use the word angriff but they mean actually "going towards the fire and extinguishing the fire with their means and assets". So generally, there is a lot of commonalities between it, but when it comes to specific details then you have a completely different meaning. But this is just one example of how terminology can differ. And of course, you have also always

a challenge between military and civilian organisations, coming from different organisational cultures. You would have the same if you compare a banker with a nurse. And it's similar to the military and civilian organisations. So yes, there is also differences in culture, there is differences in terminology. We counter that when we come back to NATO CIMIC, for example, UNOCHA with its counterpart, with its UN-CMCoord function, we counter it by educating our people about the commonly used doctrine, in that case for example, the guidelines you already studied, the Oslo and the MCDA guidelines for example.

**Interviewer: Okay yes. Thank you for that answer. So, you say that both of you, well UNOCHA and CIMIC COE, study these guidelines. Is there also maybe like an initiative to make a joint terminology framework or something in that space?**

Interviewee: Not as a formal process that I would know of.

**Interviewer: All right. So, when it comes to the training as you said, it's basically looking at these guidelines to have like a common understanding of certain concepts. That's how I understand the training the CIMIC staff let's say, to understand also UNOCHA.**

Interviewee: Yes. Training conduct is integrated. You have civilian staff participating in the military training and also giving lectures in the military training. And vice versa. So, there is exchange within the courses. But then again, I would suggest you get in contact with branch chief T&E to go into the details about the training.

**Interviewer: Okay great. You talked about the differences in culture, so I understand that you have encountered cultural differences between the CIMIC staff and the staff from the UN, like from UNOCHA.**

Interviewee: Yes of course. In military and civilian organisations, you have different cultures. And this is independent from NATO and UN. You have it in military and German civilian organisations. That is something, the organisational culture, cultural differences, you always encounter. One of the main skills a person working in the field of liaison and coordination between organisations has to have is the awareness of cultural differences and the potential of misunderstandings just based on the different perspectives how organisations are looking on subjects. So, actually, one of the basic skills for civil-military cooperation and civil-military interaction is being aware of cultural differences and being able to bridge them to translate certain aspects. It starts with the fact that of course different organisations with a different mandate naturally follow different objectives. While they might work towards a common outcome, unified outcome. Like for example, stability in a certain area and state, enabling safe and secure livelihood for the human being living there. I mean this is something shared by humanitarian organisations as well as the military, while still the way to achieve that may sometimes differ. So, given that, sometimes you have misunderstandings but generally, I have to say the mechanisms that are there for liaison and cooperation are generally working, and you have exchange between the organisations leading to deconfliction or coordination.

**Interviewer: Okay, so if I could ask you personally, what are the main cultural differences that you have encountered during working with staff from UNOCHA?**

Interviewee: I've served on the Balkans, I've served in Afghanistan, I served in Africa. One general thing, especially as you mention UNOCHA, it's the UN Office for the Coordination of Humanitarian Affairs, and it's coordinating with a whole variety of humanitarian actors. One point of sensitivity is always that humanitarian actors need to keep some distance to the military, no matter which side the military belongs

to. Be it UN, be it NATO, be it an opposing military. They need to have some distance because they are following the humanitarian principles which two of them are neutrality and impartiality. So that is often something that doesn't allow steady constant direct contact. But there are mechanisms in place from the side of UNOCHA, UN-CMCoord, and from the side of NATO CIMIC to bridge this distance. And this can be read when you can see the levels of interaction which are laid down in UNOCHA guidelines and also in our doctrine for civil-military cooperation AJP-3.19. You might want to look into that doctrine as well, where you have the levels of interaction defined, describing different levels of proximity working together. They have the case that you really work together in the field. There I have one example which is not referring to NATO but to UN. In 2013 to 14, in December 2013 I was serving freshly arrived in the headquarters of UNMISS, the UN mission to South Sudan. Early December armed conflict broke out between the president and his affiliates and the former vice-president and his affiliates. This resulted in atrocities against the civilian population and large numbers of internally displaced persons were fleeing to the UN camps to seek protection. Within a couple of days, we had UN camps filled with ten thousands of people, they had to be accommodated in the camps. For example, when I was directly on-site in Juba where our headquarters was located, we had in a couple of days 15.000 later up to 20.000 internally displaced persons in our camp. Of course, these persons needed medical attendance. From the UN mission side, we had a military level 2 clinic on the site, run by Cambodian forces. But it was of course not enough to serve all the IDP. So, UNOCHA and whole humanitarian country team stepped in. A large variety of non-governmental organisations and international organisations stepped in to provide basic needs for this population of around 20.000 IDP in our camps. Amongst them was the non-governmental organisation Doctors Without Borders. They set up a tent clinic within our camp. That means they were directly collocated with our troops who were also living in the camp. We coordinated our activities in different coordination meetings and the Doctors Without Borders even submitted patients to our level 2 clinic. So, there was direct communication in several meetings. On the other hand, I never entered this clinic, not to interfere with the neutrality and the impartiality that this clinic had within our camp. And I can give you one example, which is a tangible example, how it can look like. I was actually sitting in a meeting with the representatives of the IDP community, and there was also a representative of Doctors Without Borders. And we discussed with the representatives of these communities about further measures and how to support them. About an hour later we had a meeting in the UN headquarters with the UN humanitarian country team where also Doctors Without Borders were represented by the same colleague. I was having my car at the place of the other meeting and the distance between the two meetings was about 2 kilometers and the temperature was about 35 degrees Celsius. So, I offered the colleague from Doctors Without Borders to enter my car and drive with me to the other meeting. And though we were sitting in the same meetings, before and after, he refused to get a lift in my car because he was not supposed to drive in a military car according to the policy of the organisation. This is not necessarily because he personally doesn't like the military. It's just based on the fact that organisations following the humanitarian principles need to have some distance and independency from military or political organisations and keep that up as far as possible, while of course they make steps toward more proximity wherever it is necessary to help the beneficiaries they are mandated to help.

**Interviewer: Okay, yes that is a weird situation, but I understand it.**

Interviewee: Yes, it's highly interesting. When you have uneducated military persons, they get offended and say "ooh these tree huggers don't like to talk to us". On the other hand, you might have humanitarian workers who say "ooh military is evil in itself because the use of weapons is something evil". Actually,

bridging such gaps and avoiding misperceptions is what you have CIMIC for, and that is what you have UN-CMCoord on the civilian side for.

**Interviewer: Yes, so you said that NATO and the UN, and any military have to keep distance because of their rule for impartiality...**

Interviewee: At certain points. Don't generalize it too much.

**Interviewer: Yes exactly. That's what I wanted to ask about.**

Interviewee: Yes. I named that for humanitarian organisations. Not all the UN is humanitarian. There are humanitarian agencies under the umbrella of the UN like for example WFP, the World Food Program, is a humanitarian organisation. They don't follow any political guidance. They just provide food and nutrition to people in need, no matter which political affiliation they have. But on the other hand, the Security Council mandated missions of the UN are not impartial and are not humanitarian in the first line, but instead they have to enforce a mandate. And that maybe even by force. So, the UN system is very diverse. Don't get me wrong when I say that when I sketch this difference between humanitarian and military. You even have these cultural differences within the UN system. So, you have the same challenges between UN organisations. You even have competition with different UN organisations with budgets and everything, so this is something also playing into the game. But generally, you can say the differences, the cultural differences are there. Differences in mid-term objectives are there. Differences in approaches are there. There are also mechanisms in place to bridge these differences.

**Interviewer: Yes. So, for example, if there's like a, well I don't know if you know this, but I just wanted to ask you, maybe you know. So, if there's like a disaster, like a catastrophe like an earthquake or something, and NATO and UN work together then you say there's not necessarily this component of impartiality on the UN because both work towards the same goal. Like, providing aid and things like that. It's not specifically political, it's not specifically military so they could in that situation just work together.**

Interviewee: Yes of course. I mean, even agencies working under humanitarian principles will, following the different levels of interaction, somehow coexists or exchange information with the military. So, it's not that there is an unbridgeable gap. When you say disaster hits somewhere, then we talk about disaster happening on the soil of a certain state. So, call it nation X. When talking about relation between NATO and UN in that case, you should be always aware of the sequence of responsibilities. So, in the first line, the responsibility for the disaster response lies with the affected nation. And in the affected nation no matter how well organized or not, there is generally a government and a national administration which usually has a national emergency management authority that will respond to the emergency. If they cannot cope, they might ask for support. And one thing important with this, because you mention non-conflict disaster, in non-conflict settings the vast majority of the actual support requested from other nations is very often requested on a bilateral basis. Where NATO can come in is by fostering negotiations and by brokering for example, capabilities via the EADRCC. I guess you did research on the EADRCC as well?

**Interviewer: Yes, I did.**

Interviewee: That's good. That is a key thing when talking about non-conflict disaster management. If you have a weak or a failing state asking the UN for support then in general, or very likely, it will be UNOCHA

establishing an OSOCC, On-Site Operation Coordination Center. There are some cases you might want to look into as for example earthquakes in Pakistan in 2005.

**Interviewer: Yes, I've looked into the Pakistani one, I couldn't find that much information on open source let's say. But I found some information, so yes.**

Interviewee: Well, that's actually a good example, especially when it comes to the involvement of NATO because NATO Member States were providing aid or assistance from out of the Afghanistan mission into Pakistan. So, for example, different Member States, helicopters were then deployed in Pakistan. I honestly have to say I don't know about the exact mechanisms that were applied. But very likely there was communication between the mission and also NATO headquarters with the Pakistani government. But when it comes to deploying the assets it's usually something legally based on bilateral agreements. Like when the German helicopters were sent to Pakistan, there was definitely an agreement between the German government and Pakistani government. But I'm not into the details of that. I have to check if I can provide you some contacts to colleagues who have worked in an OSOCC before. That may be interesting for a follow-up. Do you have a contact with UNOCHA?

**Interviewer: I have one contact with UNOCHA, with (name of contact). But if you could provide more contacts then that would also be of course... I would be open to that.**

Interviewee: (contact persons from UNOCHA) is already the right contact from UNOCHA to have. He's very experienced and a key figure in UN-CMCoord.

**Interviewer: Yes exactly, so I already have that one. My next question was, you stated that you do not see an issue of non-conflict disaster management as one needing substantial improvement when it comes to CIMIC. You also stated that CIMIC focuses on civil-military interaction in conflicts mostly. However, I was wondering if the CIMIC COE cooperates for example with the CMDR COE on CIMIC and disaster management in any way?**

Interviewee: Yes, as I wrote, there has been participation in the JCBRN Defence COE's workshop, the SIGMIL discovery experiment. And yes of course we meet in different NATO concept development events, but at the moment I am not aware of an agreed bilateral JCBRN Defence COE and CIMIC COE project that we are now directly bilaterally working together. But the exchange is generally there.

**Interviewer: Okay. My next question was about the virtual OSOCC. You said it was a tool to coordinate civil-military interaction between NATO and the UN and of course other parties that are involved during a disaster. I wanted to ask if you know if there have been any problems that were encountered during the use of the OSOCC or the virtual OSOCC if you know anything about it.**

Interviewee: No, I don't have any deeper experience with that. That is probably something, a topic to discuss with (contact person from UNOCHA). He might have some more context, having experience with working with the OSOCC. But I don't have any experience or any knowledge about special challenges or issues when it comes to coordination work of the OSOCC.

**Interviewer: Okay. So, in your opinion, what are the biggest problems in cooperation right now between CIMIC and UNOCHA?**

Interviewee: NATO CIMIC and UNOCHA?

**Interviewer: Yes.**

Interviewee: I am not aware of any specific problems.

**Interviewer: Okay, great. That's also a possibility if you think everything is fine.**

Interviewee: No, I will never say that everything is fine because that would mean we are standing on the spot. Of course, there is always room for improvement, but I cannot put a finger on some specific problem, this is now an issue or not. I mean, also a point probably to discuss with (contact person from UNOCHA) is the question of the exchange on the political level. With the email I just sent you, giving you the contact of (branch chief training and education). I have also inserted other contacts. One is (name of contact), and the other one is (name of contact). They are both working in NATO HQ on resilience and civil emergency planning. They are probably valid contacts to talk about the political level of the cooperation. I don't have that much insight. So, I would actually encourage you to widen your research to the NATO HQ as well.

**Interviewer: Yes, thank you. I see you have provided (name of contact) here. I will have a talk with him today after you at 14:00.**

Interviewee: Oh, you already arranged it?

**Interviewer: Yes, I have already arranged it, at least the one contact that you have provided.**

Interviewee: Perfect.

**Interviewer: So, when it comes to NATO terminology, I wanted to ask you how you understand the phrase "crisis management", because it seems that you only, well, from my understanding it seems that you very much put the emphasis on conflict-related things when it comes to crisis management when it is also sometimes seen as well, disaster management let's say, or seen in the context of disaster.**

Interviewee: Wait a second. Let me briefly digest the question. I have to look for something.

**Interviewer: Because I know there are the definitions from specific definitions of NATO in the documents AAP, can't remember which one it exactly is. Yes, but I wanted to say because I know there is also a debate within NATO itself that some terms are disputed so I wanted to ask you about crisis management and how you see it.**

Interviewee: That's quite simple. You have been earlier talking about disaster management in non-conflict setting. Crisis management is besides collective defence and collective security one of NATO's core tasks. So, NATO's understanding of the term crisis, and I have to look it up if we have a definition, but definitely the understanding of the term crisis is always related to... some stage of conflict or competition. Where we cannot say it is conflict because we talk about this spectrum of peace, crisis, and conflict. So, it's a question of political tension, more than... maybe you can explain what is the aim of the question? Do you ask if crisis is something non-conflict-related?

**Interviewer: Yes exactly. If you see that the word crisis management is used different meanings, for example, disaster management or in non-conflict areas, or let's say crisis management in conflict areas? If you see that in NATO?**

Interviewee: Crisis management as used in NATO is per se conflict-related. So, I mean psychologists may talk about crisis, may talk about something going on within a person's head. Let me just check the NATO

terminology if we have a definition for the term crisis itself... Yes, we have but it is not NATO agreed. That's where it starts because it is political. I will share that bit with you. But please mind, it says "not NATO agreed". It was discussed but it was not agreed upon. But yes, the suggestion was "disruption of the equilibrium in the nation or among several nations which might lead to serious turmoil or to a conflict". So actually conflict, as it's used, is more referring to a crisis becoming physically tangible by armed conflict. While crisis itself is more related to the political tension below. So, when you talk about, when you want to dive into the term "crisis" you should also use the, always use the basis for NATO, the Oxford dictionary. Because this is actually our generic terminology bible. Where it says "crisis: a time of intense difficulty or danger", which is pretty much neutral, could be an emergency as well. So, I guess the generic use of the word is neutral and could also refer to a serious emergency while, definitely the use in NATO as implied in core tasks, crisis management is conflict related.... I will send you the agreed term. Crisis management is "the coordinated actions to defuse crisis, prevent their escalation into an armed conflict, and contain hostilities if they should result".

**Interviewer: Yes, I have it also here in the AAP-06 document from 2020.**

Interviewee: Yes, it should be there. I retrieved it from the website NATOTerm terminology database.

**Interviewer: Okay, so I wanted to ask if you have anything else to add? Something that came up to you or something like that? Last thoughts or remarks?**

Interviewee: At the moment I don't have anything. You are talking with (contact person). You already have the NATO HQ included and EADRCC. Actually, I would be interested on the current state of the EADRCC. I'm not fully informed on how they are currently set up, how many people and how they work. When you look at the EADRCC I would also encourage you to look at the European Union mechanisms. The UCPM is the European Union Civil Protection Mechanism. And this mechanism also runs the so-called ERCC, Emergency Response Coordination Center. It's also based in Brussels, and it's similar to the EADRCC of NATO. So, you could say they are competing, or you could say they are complementing each other. NATO declares in the current policy that we want to cooperate with the EU to complement the capabilities we have there. So, this will be something to probably also look into when it comes to the clearing house function or the coordination center function of EADRCC compared with, and complimentary with the ERCC of the European Union Civil Protection Mechanism.

**Interviewer: Okay thank you very much. I'll look into it. That will be all, that were all my questions that I wanted to ask about the email that you sent today. Thank you very much.**



## Annex 18 Interview ACDC Part 1

*This interview encountered some connection issues which led to situations where the interviewee could not be heard well. This phenomenon is described in the transcription as “(inaudible)”. Due to the interviewee’s time constraints and connection issues, the interview was split into two separate parts. The third interview was conducted with a different staff member of the ACDC.*

**Interviewer: This interview is being recorded. I understand that you consent to that?**

Interviewee: Yes.

**Interviewer: Okay. So, I’ll briefly introduce myself and talk about this research, what it is about. My name is Aleks Kozuchowski. I am an intern at the JCBRN Defence Center of Excellence, and I am writing a research paper on NATO and UN cooperation. The aim of the study is to see how NATO and UN cooperate in crisis management operations, and more specifically CBRN crisis management operations and identify weak points in this cooperation. ACDC is involved in the domain of CBRN nonproliferation. Could you tell me about our position in ACDC and what that position entails?**

Interviewee: What’s the cooperation with the UN?

**Interviewer: No, right now could you tell me about your own position in the ACDC and what that position entails?**

Interviewee: Okay. So, I am (name). I am the (position in ACDC). ACDC is responsible for the whole arms control, disarmament, and weapons of mass destruction proliferation agenda of the Alliance. Taking care of, pushing, and promoting policies, coordinating positions, outreach activities. It’s quite broad and it contains the arms control, disarmament and non-proliferation agenda, it contains conventional arms control regimes, and CBRN defence, and also the agenda relating to small arms weapons and women in peace and security. So that’s a little bit my role. The center varies around (number of personnel) and covers these I would say, 4-5 areas of work.

**Interviewer: Okay, thank you. So, I have read that the ACDC cooperates with the UN in the enforcement of non-proliferation of WMDs. Could you tell me more about how you collaborate or cooperate with the UN? How does it look like, what are the mechanisms of collaboration?**

Interviewee: Well, the mechanism of collaboration is mainly established through the NATO-UN Declaration signed in 2008 which provided collaboration between the two secretariats and move more in a structured way. So that includes a broad agenda beyond just CBRN and ADN. But in that context, we have also initiated, over the years, dialogue with the Office of Disarmament Affairs and other specialized bodies of the United Nations to discuss also issues pertaining to the non-proliferation of weapons of mass destruction and relevant proliferation resolutions. In this context we have dialogue with other specialized UN bodies such as the OPCW, the small office of the BWC for example. Furthermore, we invite each other to our respective events like the annual NATO weapons of mass destruction conference, which the United Nations, OPCW and other specialized bodies are invited and a number of partners. We invite them to also be part, and actually provide training in education and training activities. For instance, in Oberammergau which usually teaches and trains cadres of civilian and military personnel of NATO and partners on major policies and priorities of political resolutions that provide the framework for curbing the proliferation of weapons of mass destruction. We are also inviting them in some exercises, such as of the EADRCC. So,

this is a little bit in a nutshell where we come in NATO-UN cooperation. One other aspect (inaudible) is looking at non-proliferation initiatives like the 1540 Committee. And we develop partnership cooperation to help partners develop the capacities to curb the proliferation of weapons of mass destruction. We also ensure coordination with other international organisations that take action like the OSCE, that have an important role in the implementation of the resolution.

**Interviewer: Okay. Thank you for that elaborate answer. I wanted to ask you, when it comes to the mechanism of cooperation, you said that there are like conferences, talks, meetings. Are there also like, bilateral agreements. Except the 2008 cooperation agreement, but specific bilateral agreements or liaison officers or something?**

Interviewee: Yes, so I mean the main, if you want, document that frames the broader secretariat-secretariat cooperation is the NATO-UN Declaration which was updated in 2018. There was an update, a renewed signing so that's the main framework. We also developed liaison arrangements between NATO and UN. Since 2010 our liaison presence has also been complemented with a civilian presence.

**Interviewer: Miss I am sorry to interrupt but you cut out a bit. You said that you had something legal but then you cut out.**

Interviewee: Not legal, the framework for practical cooperation was the Declaration, we have no MOU or other legally binding agreements... It's a political commitment between the two Secretary Generals. They signed it in 2008 and updated in 2018, that frames the cooperation beyond CBRN. It's the NATO-UN Declaration. And in there, that of course allows for the staffs to identify priorities including with the Office of Disarmament Affairs to develop practical cooperation. So, no need for additional agreements to take the cooperation forward. So, we have enough staff level talks... We have a presence, a civilian and military person in New York that, that is the liaison arrangement for us to cover all NATO-UN related issues including issues relating to, what I would call ADN, which is the arms control disarmament, non-proliferation, within which of course the CBRN issues also rest. So that's if you want, the generic framework of ATO-UN cooperation however it manifests in whatever discipline or area. But there is no more agreements, no additional agreements than that.

**Interviewer: Okay. And are you satisfied with the current cooperation with the UN?**

Interviewee: Yes, I mean the United Nations... COVID has been a little bit unhelpful to be honest because it broke the steady cooperation but even during COVID, we have tried to make sure that we are present in our activities, that we establish the regular dialogue across the board. With the Office for Disarmament Affairs, we have dialogue on issues of the weapons of mass destruction and the broader Office of Disarmament Affairs agenda. Can it improve? Yes. You know there is always room for improvement. But there is a good basis, there is a good level of communication. The same goes with the OPCW and you know... when I talk about the UN it's very... the UN is not one UN. It's... you have New York the Office of Disarmament Affairs, and you have the OPCW which his in Vienna. But there is a good level of understanding and there is a good level of communication. I would have preferred much more frequent, but you know, there's always needed to prioritize for the other organisations. For us, where do we put our... when do we allocate time. But I do think that we can do, post-COVID, wherever if that exists, or within COVID, we try to make sure that we are, we regularize the information sharing. Identifying activities for cooperation and move the agenda forward.

**Interviewer: Okay. You said that you would like to have a bit more contact let's say, with the UN. What is it right now and what would you like it to be?**

Interviewee: So, as I said now, we are once a year, right? Once a year the NATO UN staff talks and frames the cooperation. You know if there's an issue if there's a question, we have there's a very direct and very good communication with New York and Geneva and The Hague. What I would like to see more is more practical cooperation. You know, to demonstrate the value of the relationship, to reflect it better also to the outside world. And I think this is a little bit of a handicap of the overall NATO-UN cooperation if you want. And I say that with the experience with having led the NATO-UN cooperation since 2005 at NATO, up until 2015 because I was the first civilian liaison to New York, is that sometimes we do a lot but it's not visible and it's a little bit a vicious circle right? If it's not visible nobody sees what we're doing and so forth and so forth. But there's just a lot happening without being visible, which at the end of the day is quite important.

**Interviewer: Okay. And what is that something that is not visible? You said that you wanted to have more practical cooperation. Do you mean like, exercises or something?**

Interviewee: No, I mean like exercises or to do... we talk a lot sometimes but to do more capacity building you know, when it comes to CBRN capacity. Let's take it in the area. Building capacity in countries which need to develop their efforts and their capacities to mitigate the threat. More access to training and education. More cross-participation. Now I say that with the understanding that we have to prioritize the NATO-UN. We try to do our best in terms of having more practical cooperation but the... over those years many discussions and committees, on the political side it's very good, I think more on the practical, we just have one practical project which dealt with building the resilience, the national capacities of Jordan for instance for mitigating CBRN threats. And this is practical, it is jointly developed, we developed a program. And that's a good example, more of those. More of the practical cooperation would do us much better. And you know, exercises. But you have to understand that NATO and UN and particularly the United Nations has a broader audience, Broader constituencies. And sometimes this brings sensitivities so it's not always easy to be visible and do things.

**Interviewer: Yes, thank you for that elaborate answer. You mentioned the cooperation in Jordan. That was also one of the questions that I actually wanted to ask which is, you as ACDC cooperated in Jordan as you said, right?**

Interviewee: It was mainly run by our colleagues in the civil emergency planning, and we work with them, yes. It was not us leading it. It came through the resilience and civil-emergency planning because the focus is very much. But we worked together on that.

**Interviewer: Okay so you participated. And could you expand on the Jordan cooperation a bit? How would you rate it? What was good? What was bad? Did you see any problems?**

Interviewee: No, I think it's... it has... you know I am not in the lead on that and the lead on that is very much the civil-emergency planning (name of the person) which is one of the persons I would recommend you speak with.

**Interviewer: Yes, I have already contacted him. So, that is already underway.**

Interviewee: But I think it's a very good example because it's practical, it's focused, it has the NATO-UN bodies. It's more led by the UN Counter-Terrorism Committee. It has identified specific areas of training and (inaudible), there is a share of who does what. And I think this is very practical because it's also for the recipient country, right? So, I think it's a very good example of cooperation where the 2 institutions with the recipient country identify the priorities, they go down to the (inaudible) place, do a visibility study, they come, identify how they can help and then they roll out the project. And I think it's a 3-year project if I am not mistaken, but to me it's an outstanding example for... in an area which is called building capacities of partner countries to mitigate their threat of the proliferation of weapons of mass destruction. Because it is about the national capacities, and I think this is fantastic. So, more of that. More of that practical... in addition to political discussions of course, but I would see more of that practical cooperation.

**Interviewer: Okay. And if you know, were you asked by the UN to help in Jordan or were you asked by Jordan specifically?**

Interviewee: I think it came by the UN. It was a NATO-UN cooperation in the context of counter-terrorism, the UN Counter-Terrorism Committee and there... please check the facts with (name of person) because I think in the context of the counter-terrorism that was a focus country and they reached out because it is an important partner for us. So, I don't know who did that first, but it was the UN with NATO that developed the cooperation and then the Jordanians came onboard. I think from the outset they were part of that. It may have been even that the Jordanians have hinted that to the United Nations given the very strong NATO-UN cooperation... sorry, NATO-Jordan cooperation, including on CBRN, and the work we have done with them building their capacities, participating in exercises, and so forth, and so on.

**Interviewer: Okay. Is the ACDC also involved in other forms of CBRN crisis management? Such as, for example, if a chemical factory... there is an explosion of that or are you only involved in like this... terrorism side and non-proliferation of CBRN weapons?**

Interviewee: Crisis management. You mean NATO crisis management or in general?

**Interviewer: Yes, NATO I mean.**

Interviewee: Any (inaudible) exercise involving CBRN, ACDC is involved. With shaping it in a way that it's realistic and making sure that has the right approach and drives the right question. Because the question in crisis management exercise is to identify potential gaps and areas of improvement. Learn your lessons and improve. So, in that sense absolutely the ACDC but also the Committee on Proliferation in Defence Format is the body where they put a lot of emphasis in ensuring that these aspects are covered in exercises. And (inaudible) it's one of their priorities that it has to be constantly tested and reviewed in any form of exercise that we're doing. And the body, you know, if I go back to your original question, it is a (inaudible). So, yes absolutely we're involved in the thinking in the shaping and in the conduct of crisis management exercises along with our colleagues from civil emergency planning because there's a civilian component here and the EADRCC which is the operational leg of NATO when it comes to response, possible response coordination.

**Interviewer: Yes, and based on the exercises that you had right now, what are the main let's say, weak points that you could say you have identified in CBRN response?**

Interviewee: CBRN response, I don't think I can do that on an open line.

**Interviewer: Okay, yes maybe I should have specified more... let's say...**

Interviewee: I think one area that I can overall talk about is the civil-military cooperation, overall. But that's beyond NATO-UN, right? We're talking overall. In an event of an attack or incident first responders will be the first on site, and while we have very well-developed civilian capabilities, and good military capabilities, need to do more to bring these strands closer together...

**Interviewer: Sorry I don't know if you can hear me right now but you're cutting out right now. You said something about the capabilities that they... you started about the capabilities and then you cut out a bit. I can't hear you right now.**

Interviewee: I don't know where I was, but we have very well-developed civilian capabilities, we have (inaudible) developed the military ones, it's always very difficult bring the civil-military together. Because in an incident it's usually the civilian aspects that will... response mechanism that will come forth but then, there are... should there be a military support? That (inaudible) further developed. Our policy that dates back to 2009 has recognized that important aspect and this needs further development if I may say that in this open line.

**Interviewer: Okay, thank you. So, I wanted to ask, is the ACDC like, in any way resource dependent on the UN? Let's say, resource dependence also means not only resources but also expertise or legitimacy to perform a task successfully.**

Interviewee: Well, I think you're opening many questions here. Resource dependent (inaudible). Well, let me rephrase. If it's financially, no. Expertise? (inaudible) Very often experts are national experts, and they may belong to different lists for supporting either in the OPCW context or in the UN context or in the NATO. So, we don't depend on the UN. Now, I don't understand on the legitimacy because what does it mean, but NATO to operate, that's the question... unless it's a collective defence aspect, our efforts would always be under UN Security Council Resolution. So, if that's the legitimacy point that you're raising. But otherwise, I wouldn't call it dependent, but we do seek as part of our comprehensive approach, to ensure that our activities complement those of the European Union, the OSCE, and the United Nations. So, are we dependent? No. will we be smarter? Yes. But we just make sure, identify the gaps, and contribute to where we can add value. And that's driving (inaudible) for NATO.

**Interviewer: Okay. So, my next question is, is there any miscommunication due to different terminology between NATO and the UN?**

Interviewee: I think that overall miscommunication between NATO and UN... in general again? Or you're talking about CBRN?

**Interviewer: Let's say CBRN and if you... if you see that there's a difference in communication when it comes to CBRN and in general then please state that. But let's say, right now in CBRN.**

Interviewee: Is there any miscommunication? I am not aware of. I think there's always a difference between the civilian world and the military world how they refer to points. I think, particularly when it comes to crisis management OCHA is trying to put a lot of efforts to regulate the civilian and the military cooperation. I am not aware of miscommunication. I am just aware of differences in terms of terminology.... Maybe there is. But no. But you know the problem is not NATO-UN but it's civilian-military, right? You speak differently and this can be, in a situation of crisis, quite significant because you need to

ensure that you communicate correctly, that you understand each other. This is an area that goes back to the civil-military cooperation. This is very important part, the communication in certain aspects that need to be much more developed, furthermore in the military you see more limited access to certain information while in the civilian world this is much more open. But I am not aware of any miscommunication. And if there is then I think the fact that we invite the Members, parties, or Members of different (inaudible) of the United Nations to participate in exercises. And I think that's the way where you mitigate, and you understand how a civilian organisation will work with NATO in a specific situation. So, I think that's the goal. I think if there are, there are ways to mitigate it.

**Interviewer: Okay. So, you have touched upon the cultural aspect a bit between NATO and UN so you can see that there is like, a difference between your organisation and UN bodies due to organisational culture.**

Interviewee: Absolutely. Yes, I mean, we also represent different bodies, right? The UN is much broader, and it has broader constituencies, broader membership, is a completely different organisation and we try not to focus on our differences, but you know, there is always skepticism when NATO is seen in any course of the United Nations but that's not the political skepticism, one has to peel it off. There is the political side which will always... will always be the interpretation between the north and the south division and conception of security. But then there is the practical aspect of United Nations that sees the added value and so do we with working close with the United Nations. The perceptions are there, you know, there are perceptions that they move too fast, do they move too slow, are they too militaristic, are we too civilian? So, you know these aspects exist but what others and I have seen is that that political skepticism that it exists. When it comes to the practical cooperation, it's really inexistent. There is a wish, there is a will, and in many difficult moments, in peacekeeping operations, realism, or humanitarian disaster response situations, realism prevailed, and the cooperation was very seamless. I mean, also during COVID we worked extremely well with UNOCHA with WHO, with all these agencies and supported our respective activities so again, if you take it in the political sphere of the Security Council the Members, there was a lot of disinformation, misinformation, politicking. And that's where it's very very good communication and cooperation. I actually, at the practical level there is a direct line of communication which is fantastic.

**Interviewer: Okay. Thank you for that answer. You mentioned the COVID-19 pandemic, you said that you were involved. Could you tell me how you were involved, in what way exactly, and how you would rate that cooperation?**

Interviewee: The NATO-UN? I think that was, from the outside, again my colleagues will talk to you, I think at the beginning it was a little bit confusing with the UN. But then we established cooperation with OCHA and the WHO and that was like, interagency regular dialogue, which I think continues till today if I'm not mistaken. And sharing information, identifying areas where support can be delivered (inaudible) or agencies. I don't know... we airlifted specific requests that UN brought to our attention. But there was really, I would say, excellent cooperation with the UN at all levels. This one was also at the level with a dialogue and communication at the highest level with the deputy Secretary General and even I believe with our Secretary General, all the way down to the operators. This is what's happening today, these are the numbers, these are the needs. So whatever need there was, I don't have it in front of me, but there were a lot of requests left and right and we tried to deconflict, and we tried to make sure to deliver to the requests. And my understanding was that it was actually very good cooperation.

**Interviewer: Okay. And were there any weak points that you could actually discuss when it comes to cooperation in COVID-19 cooperation with the UN specifically?**

Interviewee: I think the biggest problem with the UN if I may say is that it's massive. NATO as big as we are, we usually have, usually I say because we do have that one entry point at the UN, until you find that entry point you have a lot of institutions. And the UN is no one UN. Well, there is a concept of one UN but WHO has its own rules, communication. UNOCHA, which is the humanitarian response organisation. Then you have Secretariat with the DPK, DPKO. So, there is quite a... I think it's a weak point but at the same time, we cannot do anything because that's the UN. So, you want us to identify the mechanisms to ensure that it pulls together all the main actors when it comes to liaising and supporting specific requests. But you know, it's funny because we have been doing it for years, be it in Afghanistan, be in many, in every situation. And then when a crisis is about to start and you say "Okay, let's call the UN" there's always a little bit of a moment where you think "Okay, who's in the lead of the UN?". Until you find that lead. But then once it's there, there's... the coordination is very good. And I think, again, when it came to COVID-19, when it came to UNOCHA, the World Food Program actually, and WHO, the liaison officers, you know there were liaison officers coordinating all the time. And then of course, we responded to a UNOCHA request with (inaudible) to Ghana, which a field hospital ward from a NATO place from the UK. So, support is very specific. So, and the weakness... and the good thing about coordination is to take into account that when we talk about coordination, you know, the assets are the same, so it's UN asset, its NATO assets, at the end of the day it's a national asset. That's why coordination is very important.

**Interviewer: Yes. So, in your opinion, what are the 3 main problems between the ACDC and UN right now? If you could identify them?**

Interviewee: I think, I would just say a lot of the... the main one I would say is the... what are the problems UN-ACDC... I wouldn't call problems. I think we need to enhance the dialogue on the broader arms control and disarmament of weapons of mass destruction and proliferation. So more frequent, more regular, more specific.. And we need to make sure that we have that dialogue with the United Nations, being the body that regulates, puts usually frameworks through the place, global frameworks, multilateral frameworks. So more regular dialogue, more regular cooperation. We would have done it, but COVID you know, the past couple of years has really not helped a lot. The second aspect is more practical cooperation, I would like. Aside from the dialogue, practical as I said you know, NATO-Jordan example is perfect because it's to the point, meets a need, and you know, it's a visible manifestation of how (inaudible) can work and support where the need is. So more of that. We have important resolutions, that it's compulsory for everybody, many of our partner countries, many of the UN Members, I would even put the European Union here. So, how can we enhance the cooperation to identify the gaps and help develop the capacities? You know there is one initiative, and I'm digressing a little bit here, it's called the Western Balkans Initiative, trying to curb the easy trafficking of small arms and light weapons. And they have done a tremendous work.

**Interviewer: Miss sorry but you're again cutting out. You said that it led to a very thorough review and then I couldn't hear.**

Interviewee: Yes, so a thorough review of what has been done so far, identifying the needs (inaudible) identified themselves (inaudible) where they can support (inaudible) where are the gaps with a very rigorous objective, with key performance indicators, with regular meetings at the national, regional, international level. It's an amazing example of how you can develop and help where there is need, rather

than sometimes we do activities (inaudible) so my point is practical cooperation between organisations. More practical cooperation. Yes, these are good, and the third one? I don't know. And the practical cooperation I would also say more of these exercises, maybe scenario-based exercises. Where we play our respective efforts in a situation, so you familiarize yourself with the mechanisms that evolve, evolve within the United Nations, and evolve within NATO. So, I think more dialogue, more practical cooperation, and if I say the third one, more familiarization with our evolving (inaudible). That would be very important. So that we understand and are up to speed with each other. Given the fact that we have the framework for cooperation.

**Interviewer: You said more cooperation and evolving, and I couldn't hear that. Could you say again?**

Interviewee: Evolving procedures. Because the United Nations evolves its procedures with its crisis, with its situation, (inaudible), players evolve, so it's important for us to know in advance and the secretariat, work these issues better because it will be hard to do this when there is a problem. We have done that in the overall UN-NATO cooperation in... before. So, I would (inaudible) or scenario-based (inaudible) so if this happens what would you do? What do we do? How would we communicate? What would be the entry points? And so forth and so on. And I think that's important for us to familiarize so that's very comfortable, should something happen, to know who to call, to know how to react, rather than just imagine how they would react.

**Interviewer: Okay. Thank you very much for that answer. I have some other questions, but I see that it's 12 o'clock and you said that...**

Interviewee: I'm happy to follow up next or another time.

(Making an appointment for the second part of the interview)

**Interviewer: I want to thank you for your time that you have taken to do this interview with me, at least the first part. We will be in contact.**



## Annex 19 Interview ACDC Part 2

*As the previous interview had to be cut short due to time constraints, this interview aims to gather additional information by asking the questions that could not have been asked during the last interview.*

*Due to technical difficulties, this interview could not be recorded which means that notes were taken during the interview.*

**Remark: Sensitive information in the interview is blacked**

### **Was the ACDC involved during the COVID-19 cooperation with the UN?**

- There was cooperation during the COVID-19 pandemic with the WHO, UNOCHA. One example is the aid provided to Ghana.
- There were regular meetings during the COVID-19 pandemic, for some amount of time even daily.
- The cooperation was outstanding and very close.

### **Could you tell me about the Greece Olympics of 2004? Who requested help and who beard the costs?**

- Due to the fear of a terrorist attack, Greece has requested aid from NATO.
- There was daily liaison between the NATO forces present and the Greek authorities.
- It was probably the NATO countries that provided the aid that beared the cost of this endeavor.

[REDACTED]

[REDACTED]

### **Does the ACDC create after-action reports after an exercise or operation with the UN or in general?**

- The ACDC is involved in the creation of after-action reports and lessons learned, but it does not create its own separate after-action reports.
- No problems have been identified during the involvement of the creation of the lessons learned documents and after-action reports.

## Annex 20 Interview ACDC part 3

*Disclaimer: An Interview was done with a member of the ACDC; however, due to sensitivities this interview will not be released to the public and will remain in the possession of the Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence.*

## Annex 21 Interview JCBRN Defence COE on Jordan

**Interviewer: You have got some information on the Jordan cooperation in CBRN defence, you have stated.**

Interviewee: Yes, from 2015 to 2018 I was in charge of strategic planning, any CBRN strategic planning, and more especially during that period. I mainly focused on Middle East area. That is to say Syria for sure because it was the main threat at that moment. Non-state actor issue like Daesh and that's the reason why we linked with the Jordan authority. Because they were identified as a key partner in that region. A key and reliable partner in that region to deal with these two threats, Syria state... state government threat, and Daesh as a non-state actor.

**Interviewer: Okay, and through which agreement was that made between Jordan and NATO? Was it a bilateral agreement or is it through some framework?**

Interviewee: To be honest I don't have access to NATO agreements at the moment. I have access to what we did with French and other international partners, like US. In the framework of Jordan support for them to face any CBRN threats.

**Interviewer: Okay, so my first question would be, at the beginning, which NATO bodies were or are involved in the Jordan CBRN operation? If you have any information on that?**

Interviewee: No, I don't have any information because, as I said, there was many dealings with bilateral support. Sometimes by US mainly, by French somehow, and this is the only thing I can see. I can see that also, in the framework of comprehensive treaty for ban nuclear testing, there was some cooperation with Vienna offices with Jordan. Because Jordan was a key actor also to... in case of incidents of nuclear testing. They were identified as key partners. This treaty is more related to United Nations because it's more international. But I haven't seen any NATO trainings there as far as I know.

**Interviewer: Okay. So, could you tell me how the cooperation is going? Well, what you actually did and how NATO was involved?**

Interviewee: Yes, the main thing to understand is why Jordan? Jordan is a quite stable country in such region. Maybe it is the only one. And Jordan has a key will to establish full nuclear industry. And this is mostly the more important one in that regions. Because, when I studied nuclear engineering, I was in school with Jordanian engineers. There was a key will to develop, in Jordan, nuclear energy. Just because to prepare, or what could happen if there is no more oil available and so on, and so on.

**Interviewer: Yes, you have stated that Jordan is the most stable country?**

Interviewee: Yes.

**Interviewer: Okay, the most stable country.**

Interviewee: What is also key to understand for Jordan, regarding nuclear, they want to develop nuclear industry but dealing with all the stages of nuclear fuel cycle. That is to say enrichment process up to industrial limit. It's 3.5% limit of nuclear arrangement process. And to deal with fuel consuming in their own nuclear power plant. And then to try to develop, but it is not always done, nafta (oil) burning cycle over there. So... and this is quite original in that region because if you compare that to what intend to do Saudi-Arabia, they are only dealing with running nuclear power plants. Just buying from external, ready

to use, nuclear fuel and that's all. And Jordan wants to have a very comprehensive industry on nuclear. So, this is another reason why Jordan is identified as a key partner in that region.

**Interviewer: Okay, I see. And I guess that is also the reason why NATO wants to come in and help them with CBRN defence specifically?**

Interviewee: Yes, I think so. I believe so because... I know that also OPCW do a lot of training over there. So, I think NATO is coming there. But NATO has a very limited role in that region. Some NATO nations, as I told you, conducted some bilateral agreement or bilateral support. But they do it on their own. Not under the umbrella of NATO. But more on their own nation process like US and France and so on. But for NATO, for me, it's only very limited training on CBRN aspect.

**Interviewer: Okay, yes. I have spoken to a person who worked there, and he said that when they went in, they made a gap analysis, they made recommendations on how to prepare it or make CBRN defence of Jordan better. Do you have yourself any information on that?**

Interviewee: Well, what I have seen is that some countries are intending to provide to Jordan some CBRN equipment and then to develop some CBRN training in relation with this equipment. If I remember, some countries give them some masks and then conduct training on how to wear masks and so on, and so on.

**Interviewer: Okay, all right. And you said that you were there till 2018, right?**

Interviewee: Yes.

**Interviewer: Do you still follow what is happening in Jordan?**

Interviewee: Less because I only get access to open sources.

**Interviewer: Okay, so from your limited information till now, let's say, how do you think the cooperation with Jordan and NATO is right now pertaining to their CBRN defence and their nuclear capability development?**

Interviewee: I think that the... first we must understand the global picture. What is the global picture? Now, non—state actors have been defeated more or less, but there is still remaining a kind of cultural chemical weapons cultural threat from non-state actors because all knowledge regarding chemicals in that region have been very largely disseminated... and maybe too much. So maybe there is a possibility that some group in Jordan gets access to this knowledge. Especially how to create Yperite and so on, for sure. So, in Syria, there are still some chemical governmental, limited, capabilities. Yes, for sure. But the main threat now is Iran, and this is why in my mind, Jordan is focusing on nuclear and ideological aspects. This is the global, local, global picture. The intent of a lot of international partnerships is to rely on Jordan because, as I've said in the beginning, this is the most reliable country in that region. And especially we hope that in case Iran gets access to nuclear weapons, Jordan should be the most... counterbalance partner in that region. They still have some moderation and not, like some other Sunni country, should go very angry and so on.

**Interviewer: Okay, I understand. I also know, this is more of a NATO aspect... NATO-Un a bit, I know that there is talk in the UN to expand, because NATO and UN cooperated in Jordan, and the UN is interested in expanding this cooperation to other countries in the region, for example, Lebanon. Could you tell me what you think about it, or have you heard about it?**

Interviewee: No, the only thing that I could hear about, now, is the European Union which is expected to be present in Lebanon. This is something, this is a field where some French CBRN industrial are involved right now... are committed right now. But as far as I know, not NATO.

**Interviewer: Okay, not NATO. Because, well... not at the moment but it is... there was an initiative from the UN to go there.**

Interviewee: Is that true?

**Interviewer: Yes, at least that's what I have heard from a member from the Enablement and Resilience Section who was in Jordan and was cooperating with the UN.**

Interviewee: For me, there is a clear will. United Nations are in Lebanon for more than 40 years. So, for sure they want to develop more cooperation with Lebanese authority. And for the same reason like in Jordan, there is kind of remaining threats all over... close to Lebanon. So, there is something to do there. But as far as I understood, the European Union also is on the way to cooperate with them... and to get some final solution. European Union is also... is on the way to cooperate with them. And to get some final solution. There was an exercise done in late November... beginning of December over there? Did you get access from (person)?

**Interviewer: I haven't seen that specifically. At least I don't remember right now. Maybe I have the document, but I don't remember.**

Interviewee: For me, I... I cannot see NATO going there. I have seen some European Union capability going there because it's Lebanon... Lebanon is on the Mediterranean Sea so it's a close way to cooperate, but not NATO.

**Interviewer: All right. Well, this interview is specifically about Jordan and about the... NATO's involvement in it. Do you have any other, let's say, remarks or statements that you would like to make about Jordan and NATO's cooperation in that?**

Interviewee: To be honest no. for me, as I said, Jordan is a key partner for many nations in that region. And this is why... because it's a quite neutral country and so on. So, they are key partners. And I know that United Nations are keen to develop any... and my understanding is that United Nations is looking for some organisation or something just to develop any kind of local capabilities. And maybe NATO could take the lead in that way. For instance, my country (France) has developed a key partnership with Jordan. Special forces and counter-terrorism units... very strong and close link, including CBRN aspects. But that's all. The way... the key idea in Jordan is to build up a long-term capability. Because the main worry about everyone who is involved in the cooperation with Jordan, is to avoid just short-term cooperation. As I told you, if we give to Jordan some equipment... some piece of equipment, okay we will learn them how to deal with it. But is it the way to build up food capability? No. It's just... we need to do something stronger. And this is the key issue. This is what everyone is looking for. How to build up something stronger for a long-term perspective.

**Interviewer: Well, I know that this cooperation in Jordan is going on until this year, right?**

Interviewee: Yes.

**Interviewer: So, do you think, from your information, the cooperation went well till now?**

Interviewee: No, not really...

**Interviewer: No? Okay, why is that, if I may ask?**

Interviewee: Sorry, ask your question again?

**Interviewer: If till now, it's 2022, and you've been involved there since 2015 till 2018. And from the information that you've got, do you think that the capability creation went well there?**

Interviewee: No, it's still only the beginning of capability. And now lot of things were to be developed. There were too many initiatives, too many decentralized initiatives, and to build up strong capability everything needs to merge together and to get something more solid.

**Interviewer: Okay. Do you think that NATO should then... well your personal opinion of course, that NATO should stay there longer to build up capabilities?**

Interviewee: I am not sure the... just my opinion, not the governmental one, I am not sure NATO is a good partner for that. Because NATO has few commitments in that region so I don't see... many NATO nations could bring their experts there to develop some things but NATO itself is not needed. It's only my personal opinion.

**Interviewer: Yes. Okay so if you have anything else to add? Some last words about this topic?**

Interviewee: No. Thank you.

**Interviewer: Yes, thank you very much.**

## Annex 22 Interview on Greece Olympics 2004 and NATO-UN cooperation

**Remark: Sensitive information in the interview is blacked**

**Interviewer: My name is Aleks Kozuchowski. I am an intern at the JCBRN Defence Center of Excellence, and I am writing a research paper on NATO and UN cooperation. The aim of this interview is to find out more about NATO's involvement in the Greek Olympics in 2004 and its CBRN elements. This interview is recorded. Do you consent to that?**

Interviewee: Yes.

**Interviewer: Thank you very much. So, as I have been informed, you have been the commander of NATO CBRN troops supporting the Olympic Games in Athens. That's correct right?**

Interviewee: Yes.

**Interviewer: Now, my first question is, could you tell me why Greece has requested specifically for this task? What was their argumentation and their reasoning?**

Interviewee: Well, at that time Greece was missing any, not only military but in general, CBRN capabilities to cope with any CBRN threat not only in Athens but in entire Greek territory. It was shortly after the 9/11 event in the United States, and the only unit which was created was 1 CBRN company which was at the time stationed in Athens, but the company was not able to provide any kind of support at that time due to its limited equipment and training.

**Interviewer: Okay I understand. So then Greece decided to call for aid to NATO.**

Interviewee: Yes. Greece sent the request not only for CBRN. The request included much more. There was the request for antidotes in case of any CBRN incidents, a request for the monitoring of terrorist incidents or terrorist movements at the Greek boundary, monitoring in the Greek territory waters, and AWACS request.

**Interviewer: Okay, thank you very much. And I understand that this was the first time the CBRN Task Force was utilized. Is that correct?**

Interviewee: it had to be because the initial idea about the Task Force was stated during the Prague Summit and actually specified during the 5 Prague PCC's, the 5 Prague Capability Commitments. Then there was a long discussion about how to implement the requirement. In 2003 it was decided to create the CBRN battalion and CBRN JAT, Joint Assessment Team, and I was appointed as the commander of the first Task Force. In between, Czech Republic supported the initial implementation of... initial stage of implementation of NRF by 2 CBRN units. 1 recce platoon and one decon platoon as a part of the initial package for NRF in the first and second quarter of 2003.

**Interviewer: All right. And could you tell me what the CBRN Task Force consisted of? How many personnel and what specifically?**

Interviewee: There is no significant change since the first proposal which was made in 2003. By the way, the CONOPS was approved in March 2004.

**Interviewer: Could you repeat that? What was approved?**

Interviewee: In March 2004.

**Interviewer: Yes, but what specifically was approved? I couldn't hear.**

Interviewee: Concept of Operation for the CBRN battalion.

**Interviewer: Okay I understand.**

Interviewee: And therefore, you see, we established the Task Force in September 2003. We reached the IOC (Initial Operating Capability) in December 2003, but the Concept of Operation was approved in 2004. Therefore, if you look 2004... so we reached the IOC before the concept was approved. And therefore, the Olympic Games was the second event during which the CBRN battalion was used. It was not the first one because the first event was the deployment in support of Istanbul NATO Summit in 2004 in June... in June 2004.

**Interviewer: Okay, I see. I thought it was the first one so good to know. Could you maybe tell me a bit at least about the amount of personnel that was involved in the Task Force at that time in Greece?**

Interviewee: in Greece, well...

**Interviewer: If you remember of course.**

Interviewee: Of course. There are actually, in general, the CBRN JAT at that time consisted of 18 personnel in total. The CBRN battalion consisted of 900 personnel. Almost 1000. Out of which 210 were deployed to Greece in support of Olympic Games. Why only 210 people? Because that was based on the requirement coming from the Greek general staff. This was tailored to the mission based on the Greek requirements. So, we did not deploy the whole unit. We deployed capability. For the first time... it was actually the first evidence of the tailoring units to the requirements.

**Interviewer: Okay that's interesting. Thank you for that. And what were the CBRN Task Force tasks? The specific mission that you were assigned?**

Interviewee: Well, the most important part was the decontamination task. Well... let's start from the beginning. The Task Force got a task to support the Olympic Games in Athens and the second area for protection was Heraklion in Crete. So, we did not support the entire Greek territory, but we only supported about 37 venues in Athens. And the territory of Heraklion were a part of the Olympic Games was occurring. The tasks were as follows: major task was the decontamination. However, besides that, there was the requirement for the sampling and identification. So, we deployed 2 sampling teams together with the CBRN EOD (Explosive Ordnance Disposal) and we deployed all 3 laboratories, the deployable CBR-lab component, the chemical lab, the bio-lab, and the radiological lab to Greece. So the task was decontamination, surveillance, CBRN recce, CBR sampling and identification, CBRN EOD, and... and this was really just minor, just in case, to support also fires because at the time there were many fires in the Greek territory.

**Interviewer: Okay, so that's the tasks that you were assigned?**

Interviewee: Yes.



**Interviewer: Okay so my next question is, how did you cooperate with the Greek government? With which governmental bodies exactly?**

Interviewee: Basically, the responsibility for crisis response planning were lying with the Ministry of Interior and the direct support to Olympic Games was with the Ministry of Health. So, there was the National Crisis Response Center where I did have the LNO, and we started planning very in advance. We actually visited Athens in May. And during May we decided on the areas of deployment. We agreed on the real-life support, and we agreed on the fundamental path of the CONOPS. Because CONOPS was afterwards developed by JFC Naples. Then we redeployed, and we deployed to Naples where I personally, together with the Joint Operations Planning Groups, developed the CONOPS for the deployment. And this CONOPS was approved by the NAC I think in June. When, in between, because we were aware of what is inside the CONOPS, we started internal planning, so we approached nations asking who is willing to participate. We got several offers. We chose the structure based on the requirements and we tailored the Task Force to the mission requirements. We initiated our Internal Operation Plan in June, and we deployed the initial reconnaissance team late June because the team has prepared the deployment of the Task Force itself.

**Interviewer: All right. Could you just quickly specifically tell me what the abbreviation CONOPS stands for again?**

Interviewee: CONOPS. Concept of Operations.

**Interviewer: All right. So, I wanted to ask you, how would you rate the cooperation between the CBRN Task Force and the Greek Government?**

Interviewee: When we deployed, we had 2 weeks for the planning before the execution started. During those 2 weeks, we spend the whole week by working together with the National Crisis Response Center representatives with the Minister of Interior and the Minister of Health during which we did plan who will be responsible for what. Because, while the CBRN was purely the Task Force mission, the related requirements and steps were related to the national Greek responders. Which means we were responsible for the decontamination. However, we needed the force protection at the DECON side because we deployed without weapons. This was provided by police. This was agreed to be provided by police. We actually discussed who will be equipping decontaminated people with clothes because we did not provide them with clothes (for just in case we had 2000 sets). So Greek fire brigade agreed to provide the clothing for the decontaminated civilians. And there were many other related tasks such as the medical support. Because medical support for the Task Force was an internal issue, but the medical support for civilians was Ministry of Health issue. For reconnaissance, we needed the freedom of movement within Athens area. Therefore, we got the special permission to move on the highways without toll which was quite a big topic for us. And we got the special support for the movement during the mission because we were stationed in Halkida and Nea Peramos, which is about 70/30 km away from Athens. And, from the movement from Halkida and Nea Peramos to Athens, we needed the police escort in order to move quickly to the spot. Also, we agreed, and we did reconnaissance of all the venues during the nighttime so that we were not visible. And using white vehicles and civilian clothes. So military presence was not visible at all. This was also agreed because we needed the permission to enter the venues. During the planning, we agreed that around the venues there will be at least 400 meters circle in which cars will not be allowed to park. And why? Because we had to deploy the decontamination sites around the venues so that the recovery line from the spot to the DECON line is not that long, and people

can survive. And also, for ease, because if the vicinity of each venue is fully occupied by cars, we cannot deploy the DECON site anyway. So those are just examples of what we discussed and how we learned the Hellenic general staff and Hellenic crisis response center with the requirements for the potential mission. Special attention was paid to the sampling and identification mission because for the sampling and identification we agreed that there will be two samples provided. One to the Task Force and one to the national laboratories. Those were not as efficient as our mobile laboratories. But they were ensured with one sample for the national analysis. Just to compare the results. We had to also agree who will get the result from the military, from the Task Force laboratories because we had to identify the exact person responsible for taking the sample and taking the results from the analysis. Because we could not give it to someone who is knocking on the door (releasability of results were under national authority). And this everything was part of the joint planning of the Olympic and Paralympic Games.

**Interviewer: Okay, so it seems that you did cooperate well. You did discuss a lot of issues and things like that. Or am I not correct?**

Interviewee: Frankly, the people who were present at the meetings were not quite happy to spend the whole week by discussing such issues. But we could not agree on the mission itself if there... all the questions were not solved. Among which, just one example, it was really difficult to discuss who will be responsible for the disposal of contaminated clothes. Because this is not the task for the Task Force. But this was exactly one of the issues. Because when you consider that even under such hot conditions during summer, when you decontaminate thousands of people then the bulk of waste is rising so significantly that someone has to take care of that. And we were not able to do it on our own.

**Interviewer: Okay, I see. So, I wanted to ask you what your limitations were in supporting civilians. But you have just... the example that you just gave that you could not take care of all the civilians if something would happen. Or you weren't the one that would distribute clothes to civilians. That was another Greek service you said. Are there any other limitations in supporting civilians that you encountered?**

Interviewee: Well, we were responsible directly for the decontamination. The force protection on the side was responsibility of the police. Of course, equipped with individual protection equipment because they were staying in the contaminated environment. Because when you consider that hundreds of people are approaching towards the DECON line, they can completely destroy the DECON line because they're crazy, disorientated, and therefore we needed the force protection. DECON was our task and we also provided medical support during the decontamination. For instance, the antidotes application et cetera, the decontamination itself, and the clothing after the decontamination, assembling the people after the decontamination was our task while moving those people out of the DECON line and all related care was responsibility of the host nation.

**Interviewer: Okay, I understand. And could you maybe tell me something about the lessons learned or lessons identified from this mission?**

Interviewee: Yes. Based on the findings we captured during the mission, mainly during the planning, but also during the mission, because we regularly participated in the meetings, we collected quite a lot of lessons identified and observations. And based on that we created within the final report from the mission also the annex relating to the lessons identified during the mission. Majority of the lessons were analyzed

and implemented as a lesson learned in next decade. But there are still some which have not been solved and therefore, they are still valid.

**Interviewer: Could you maybe expand on that or is that not something that you can talk about?**

Interviewee: Well mainly legal issues because if you decontaminate someone, the question is "can you apply your own antidotes to the civilians in the country you are supporting"? That is still a question. Because if not approved by the nation, it may be a problem. If there are some symptoms or problems afterwards. Also, there is the legal issue related to how to dispose the waste? Who will be responsible for what? For clothing okay, host nation. How to handle decontaminated water for instance if you use the wet method? So, this is also the issue, because the sewage system can take it but then someone has to accept the sewage system is contaminated as well. Is that acceptable or not? That's the question mark. And there are organisational issues if you're working in the international environment. Normally for military, it shouldn't be a problem because now we can cooperate among the military regardless which nation we are. However, the cooperation with civil emergencies is still an issue, and not only the language barrier but also the communication issue using the radios and the CS equipment as a whole. Because those are not interoperable and compatible.

**Interviewer: Do you think those are still issues today or were those only issues in 2004?**

Interviewee: Definitely yes.

**Interviewer: Okay, I see. All right. So, my next question is, what would your advice be for the CBRN Task Force for future operations? For example, during the... well not for example... let's say the CBRN Task Force would be deployed to the Qatar World Cup, what would your advice be?**

Interviewee: This is a very difficult question... well very easy question but very difficult to answer. Because first of all this request needs defined requirements. Until we do have the requirement it's really difficult what we have to do, or what we can do. Qatar is a very wealthy country but be aware that Qatar is somehow blocked by Saudi Arabia and therefore the only way to go there is either by the sea or by the air. So, deployment would be a really challenging issue. Secondly, Qatar is really limited with sources of water. Therefore, we have to consider other DECON solutions. Not only wet but some mixtures of wet and dry methods. We have to ensure that we will take the stock of water for decontamination with us which will definitely require more tanks with water and of course, climate will be very hot, therefore, the CBRN Task Force will need special IPE which allow to operate in the hot environment for a longer time.

**Interviewer: Could you tell me what IPE's exactly mean?**

Interviewee: Individual Protective equipment.

**Interviewer: Okay, I see.**

Interviewee: Sorry it's a lot of acronyms.

**Interviewer: Yes, it's not a problem. But I will just ask sometimes because... when I haven't heard that acronym before. So. I was just asking this question because, as far as I know, the Task Force will not be deployed in Qatar. But I was just asking like, in the future if you have any let's say, tips or advice. So, you just gave a couple.**

Interviewee: Consider the climate and you have to consider the conditions. You know, Qatar is in the desert. Therefore, it's really difficult to be resupplied by water. This is something we have to take into account. And also, the fact that Qatar is somehow blocked by Saudi-Arabia means that we're limited with the deployment.

**Interviewer: Okay, I see. All right. I want to ask about NATO and UN a bit. As far as I know, you have experience with the UN?**

Interviewee: Yes.

**Interviewer: Yes, could you tell me what you think of further NATO-UN cooperation in regards to CBRN incidents like crisis management or in that regard?**

Interviewee: Well, I would not say crisis management because UN is normally not directly responsible for the mission's execution. UN is the international organisation that approves the mission and asks nations to take care of the mission. It's not like European Union or NATO because both international organisations are responsible for carrying out their missions and they do have capability and capacity to do so. UN is not responsible for carrying out mission for instance the decontamination. This is normally a national issue; however, UN is responsible for the roles of engagement and coordination and in the area of CBRN for non-proliferation effort. And for this case, there is the special UN office called UNODA. This office is responsible for the WMD disarmament and control. Under UN we have the OPCW who is responsible for chemical and biological weapons, and we have the IAIE in Vienna who is responsible for the nuclear weapons and peacetime use of nuclear energy. So, I consider... the UN is actually the control mechanism to prevent proliferation of WMD and to control the proliferation of nuclear weapons and materials. And of course, control the ban of chemical and biological weapons.

**Interviewer: Yes, and I think that you have stated, correct me if I'm wrong, that you have cooperated with the UN in Syria on such a non-proliferation or de-weaponization mission or something like that, is that correct?**

Interviewee: Yes. UN is... this was related to the chemical weapons in Syria. And there are 2 mechanisms on how to control proliferation of chemical weapons and the use of chemical weapons. First one is the OPCW mechanism. This OPCW was approved in 1993 and came into life in 1997 and allows the signatory parties... well actually OPCW to control the signatory parties. However, the system is something like a continuous control mechanism. If something happens, a part of OPCW, because OPCW can only deploy into permissive environments, there is also a mechanism called UN Secretary General Mechanism for Alleged Investigation of Chemical and Biological Weapons. And this mechanism allows quick deployment of a specialized team of inspectors who can inspect, collect samples, and investigate alleged use of chemical and biological weapons. The team is under 48 notice to move during the year and if alerted, it will assemble and deploy based on the UN Sec Gen direction. So, the UN Secretary General doesn't need any approval for carrying out such a mission. This mechanism is relatively fast, can deploy into non-permissive environments as well, which Syria definitely was. And, at that time there was a small team who deployed under the Canadian lead, (name of Canadian officer) was the leader of the team to Syria and they were investigating the alleged use of chemical weapons in the territory. However, there were still some troubles to enter exactly into the sites which were suspected to be targeted by chemical weapons. Nevertheless, they provided the samples and the identification confirmed sarin in several European national reference laboratories.

**Interviewer: Okay, I see. Now you have worked with the Un you also have, of course, obviously experience in the NATO. And both of these organisations have also cooperated together for example in crisis management in Pakistan or several other areas. Could you tell me how you would rate the cooperation between NATO and the UN? If you have any insight on that of course.**

Interviewee: Well, in 2010 there was a huge flood in Pakistan. I was at the time stationed in SHAPE, and we got the request from Pakistan to support the mitigation of the consequences of this huge flood. It was in May, I think. April or May I don't remember exactly. So, NATO was requested to provide the movement plan and to provide means of delivery, in other words, assets, to transport the emergency material such as tents, water, clothes from countries who offered this support to Pakistan. So, NATO was responsible for the transport and SHAPE did planning for the movements. And closely coordinated with the UN Office, I don't remember which office was responsible for that. But we did it with close coordination with the UN because UN also provided support to Pakistan at the time. So, we coordinated but not duplicated each other. So, overall coordination was with the HQ NATO and EADRCC in Brussels because SHAPE was the executive body for the transport, but delivery of the equipment and material was coordination at the HQ NATO in Brussels. And of course, with close coordination with UN representative in Brussels as well. Am I clear? Because I know... the mission execution lies with SHAPE, but the coordination lies at the political level. So, nations offered some support. Some of them offered it through UN, some of them offered it through NATO and the UN transport was organized by UN while NATO organized the transport of material which was offered through NATO channel. And then we coordinated the lines of transportation, the coordination in the airport in Pakistan so that we did not overwhelm the airports.

**Interviewer: And do you think the coordination went well?**

Interviewee: I think so because there were no problems during the entire mission.

**Interviewer: Okay, that's great to hear. So, from your experience in working with NATO and UN, is there anything that you'd like to see changed in the cooperation between NATO and the UN?**

Interviewee: There are of course areas for improvement. And this is caused by the different membership of those two organisations. Within NATO we have the so-called "coalition of will" because NATO has its own treaty- Alliance treaty, NATO agrees on fundamental issues. But those are not exactly in line with UN Charter. And UN members are not the NATO members and therefore, sometimes the cooperation between the UN and NATO is blocked by some UN countries. Not vice versa but the block comes from UN part. For instance, NATO is not a state, it's an organisation. And therefore, NATO cannot vote at the international forums such as OPCW. NATO is monitoring OPCW, is invited as the participant at the meetings but has no voting right. And this applies at UN meetings as well. NATO has the recommendation voice but no voting because voting lies only with states.

**Interviewer: Yes, and are there any other examples that you could give me of this deadlock that you have stated?**

Interviewee: Chiefs of Navigation

**Interviewer: Could you elaborate on that a bit?**

**Interviewee: : ■**

**Interviewer: Okay, I see. Thank you for that example. I have also been informed that have been, or are, I don't know the specific, and UNDAC member. Is that correct?**

Interviewee: No.

**Interviewer: No, you have never been an UNDAC member?**

Interviewee: No.

**Interviewer: Okay then I have heard it incorrectly. Sorry about that. So, at the moment, I wanted to ask some questions about the UNDAC but as I see that you're not an UNDAC member then I don't have any more. I would also like to ask you if you would be open for some additional questions or email in the future if that would be needed for the research?**

Interviewee: Yes definitely. Definitely yes.

**Interviewer: Thank you very much. And are there any other last statements or remarks that you would like to make?**

Interviewee: Well, just one. You asked about the lessons. Well, between us, NATO has many lessons identified and never learned. So, this process is very painful. At the tactical level, it works relatively well. And Afghanistan and ISAF mission is a great example of that. However, at the operational, strategic and, political level we still have something to do because, at this level, we need not only experience, but we also need the political will to change some conditions. Mainly to adapt national laws. This is related to the presence of foreign units on the territory and some other legal aspects, e.g. medication of antidote issue. Those were specified during many rotations of the Task Force standby periods but never learned. And I think we... this is very important for us because in the future if we want to react quickly, and effectively respond to a CBRN event or incident, we have to make sure that the legal aspects allow us to organize a quick response and not to wait until the legal arrangement is prepared so that we can move on. And that is something which currently limits us a lot.

**Interviewer: I see. Just one note, you have said "between us", does that mean I cannot put what you've just said in the transcription of the interview?**

Interviewee: Well, you can put it because this is repeated again and again.

**Interviewer: Okay good that it's not a problem. Just for certainty, I'm asking because these are sensitive issues of course. Thank you for that remark. If it's not a problem to have it in the study, it will certainly make its way there. Are there any other last remarks or statements that you would have, or comments?**

Interviewee: No, I'm fine. Unless there's any other question.

**Interviewer: No at the moment I am done with the questions. Thank you.**

## Annex 23 CMDR COE email exchange

**Q: The CMDR COE develops research, doctrines, and exercises to improve NATO's crisis and disaster management response. Does this include CBRN disaster management? If so, what exactly is produced in terms of CBRN crisis management (doctrines, research, etc.)?**

*A: CMDR COE is not responsible for development of any doctrines or policies related to CBRN crisis response and disaster management. CMDR COE is not owner or custodian of any of Allied Joint Publications (AJP).*

*CMDR COE usually receives RFF (Request for Feedback) related to respective AJP from ACT and in this way, we are involved in the process of development, updating, verification and improving of existing NATO publications. Our expertise is in the area of Humanitarian assistance, crisis response and disaster management.*

*In terms related to CBRN two year ago we received RFF for ATP – 3.8.1 "Specialist CBRN Defence Capabilities and we submitted our proposals.*

**Q: The UN is also heavily involved in crisis and disaster management. Does the CMDR COE cooperate in any way with the UN (generally, exercises, operations)?**

**If not: why not? Would the CMDR COE be interested in closer cooperation with the UN?**

**If yes: Would you say the CMDR COE is satisfied with the current cooperation? Is there room for improvement?**

*A: CMDR COE doesn't have current cooperation with the UN. Why? In order to be activated CMDR COE and to be involved in such cooperation (exercises, operations etc,) CMDR COE needs to receive RFS (Request for Support) and this RFS will initiate our participation. So far, we have not received such an RFS.*

**Q: (If the answer was "yes" to previous question) Do the CMDR COE have any problems with communication with the UN due to different standards of information sharing or use of terminology?**

*A: N/A*

**Q: Do you think that NATO has adequate response capabilities in case of disasters, and specifically CBRN disasters?**

**If not: why not? What could be improved in your opinion?**

**If yes: Could you tell me more about these capabilities? Would you like to see improvement somewhere?**

*A: In my opinion NATO has adequate response capabilities in case of disasters and speaking about CBRN disasters I think that more detailed information you could receive from our colleague from JCBRN Defence COE.*

**Q: (If the answer was "yes" to the UN cooperation question) Do you think the UN has adequate response capabilities in case of disasters, and specifically CBRN disasters?**

**If not: why not? What is the UN lacking in response capabilities in your opinion?**

**If yes: Could you tell me more about their capabilities? Would you like to see improvement somewhere?**

*A: N/A*

**Q: (If the answer was "yes" to the previous question) Is the CMDR COE resource dependent on the UN in any way at the moment (clarification: does the CMDR COE require certain resources, for example, expertise, experts, legitimacy, to perform its tasks successfully)?**

A: N/A

**Q: May I ask what your cooperation with the JCBRN Defence COE looks like at the moment?**

A: *The Crisis Management and Disaster Response Centre of Excellence (CMDR COE) and the Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence (JCBRN Defence COE) signed a Framework Collaboration Agreement on June 5, 2018.*

*The Agreement was signed in order to promote, facilitate and consolidate the cooperation in education, training, research and development, based on the principles of reciprocity and mutual benefit. The areas of cooperation between CMDR COE and JCBRN Defence COE include but are not limited to joint research and development projects, educational and qualification programmes, joint training activities, joint participation in workshops or conferences, exchange of researchers and instructors, training of students and prospective course attendance, as well as providing mentorship or consultancy in the competency areas.*

*For the last four years CMDR COE as a leader of the Modelling and Simulation group 147 (MSG-1747), organized and conducted Coordination Conferences, Workshops, Pre-tests Demo experiments etc. JCBRN Defence COE representatives were presented on all of this events and take active part in them.*

*The aim of the MSG-147 project is to develop a technical platform capable of supporting and conducting crisis management and disaster response exercises, analysis and preparatory training, that enables prompt, reasonable and effective tests of Crisis/Disaster and Climate Change Implication (CCI) Response plans.*

*For more detail information concerning CBRN you could ask our colleagues from JCBRN Defence COE.*

*In 2020 our centre received a request for support in the Risk Management area by the Krasno Selo Region of Sofia Municipality. CMDR COE OpsLab has received invaluable assistance from the Joint Chemical, Biological, Radiological, and Nuclear (CBRN) Defence (JCBRN) COE, Czechia.*

*In addition, I would say that expertize and support we receive from JCBRN during courses and exercises organized and conducted by our experts is irreplaceable*

**Q: Would you be interested to work more closely with the JCBRN Defence COE on CBRN disaster management issues?**

A: *In the future I think that we could realize more projects from mutual interests.*

**Q: Could you recommend me any sources (papers, doctrines etc.) or contacts to the NATO or UN that I should look into or contact regarding the topic of CBRN disaster management and UN cooperation?**

A: *NATO Crisis Response System Manual*



## Annex 24 NATO-UN Terminology

Word	United Nations	NATO	Source
Disaster	Severe alterations in the normal functioning	<i>NATO uses the term "crisis" instead of</i>	UN: UNTerm
	of a community or a society due to hazardous physical events interacting with vulnerable social conditions, leading to widespread adverse human, material, economic, or environmental effects that require immediate emergency response to satisfy critical human needs and that may require external support for recovery.	<i>disaster. The following definition is the definition of "crisis":</i> Disruption of the equilibrium within a nation or among several nations, creating tensions which might lead to serious turmoil or to a conflict.	NATO: NATOTerm (Not NATO agreed)
Disaster relief	Goods and services provided to meet the immediate needs of disaster-affected communities.	DR is the organized response to render assistance to those affected by a disaster. It requires rapid reaction, and often includes services and transportation, rescue and evacuation of victims, the provision of food, clothing, medicine and medical services, temporary shelter, technical assistance, and repairs to essential services.	UN: UNTerm  NATO: ALLIED JOINT DOCTRINE FOR THE MILITARY CONTRIBUTION TO HUMANITARIAN ASSISTANCE (pp. 27 & 28) (Not NATO agreed)
Crisis management	A set of procedures applied in handling, containment and resolution of an emergency in planned and coordinated steps.	The coordinated actions taken to defuse crises, prevent their escalation into an armed conflict and contain hostilities if they should result.	UN: UNTerm  NATO: AAP-06 Edition 2020 NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH) (p. 36)
Consequence management	<i>UN uses the term "rehabilitation" instead of consequence management. The following definition is a definition of "rehabilitation":</i>	Actions taken to maintain or restore essential services and to lessen the effects of natural, human-made or technological disasters, and/or acts of violence.	UN: United Nations Office for Disaster Risk Reduction  NATO: NATOTerm

	<p>The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster.</p>		
<p>Comprehensive approach</p>	<p><i>The UN does not use the phrase “comprehensive approach”. The closest phrase that the UN uses to a comprehensive approach is “integrated mission”. What follows is the definition of the phrase “integrated mission”:</i>                  This strategic objective is the result of a deliberate effort by all elements of the United Nations system to achieve a shared understanding of the mandates and functions of the various elements of the United Nations presence at the country level, and to use this understanding to maximize United Nations effectiveness, efficiency, and impact in all aspects of its work.</p> <p>An integrated mission is one in which structure is derived from an in-depth understanding of the specific country setting; of the evolving security, political, humanitarian, human rights and development imperatives in that particular country; and of the particular mix of assets and capacities available and/or</p>	<p><i>NATO comprehensive approach does not have an objective definition. The CIMIC Handbook states that “NATO decided to not develop and publish any definition on what comprehensive approach exactly is, not to claim ownership”. What follows is an extract from the CIMIC Handbook that conveys the main idea behind the comprehensive approach:</i>                  NATO encourages all responders to a crisis to participate within a comprehensive approach for improving the overall success of the international community’s mission. Thus, comprehensive approach is a mind-set aiming for synergies by coordinating or at least de-conflicting political, humanitarian, development and security efforts”.</p>	<p>UN: UNTerm                  NATO: CIMIC Handbook (Ch. 1.1.1)</p>

	<p>required to achieve the desired impact through mutually supportive action. In other words, form (mission structure) should follow function and be tailored to the specific characteristics of each country setting.</p> <p>The term is used to refer to operations in which the United Nations presence in a country is both through a United Nations country team and a Security Council mandate, and the Resident Coordinator is also the Deputy Special Representative of the Secretary-General.</p>		
Civil-Military Cooperation	<p>UN-CMCoord is the A military function which contributes to facilitating the interface between the military and civilian components, as well as with the humanitarian development actors in the mission area, to support UN Mission objectives.</p>	<p>A joint function comprising a set of capabilities integral to supporting the achievement of mission objectives and enabling NATO commands to participate effectively in a broad spectrum of civil-military interaction with diverse non-military actors.</p>	<p>UN: UN-CMCoord Field Handbook 2018</p> <p>NATO: AAP-06 Edition 2020 NATO GLOSSARY OF TERMS AND DEFINITIONS (ENGLISH AND FRENCH) (p. 26)</p>
Complex emergency	<p>A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/</p>	<p>Essentially international organisations agree that a complex emergency is distinct from interstate violence and usually comprises a humanitarian emergency complicated by the opposed interests of</p>	<p>UN: UN-CMCoord Field Handbook 2018 (p. 166)</p> <p>NATO: Co-operating in the Conflict Zone (p. 10).</p>

	<p>or the ongoing United Nations country program.</p>	<p>several armed factions and further exacerbated by human accidents and natural hazards such as drought, earthquake, crop failure, economic collapse, and dangerous epidemics. The symptoms are so complicated and severe that efforts to contain or stabilize the situation will exceed the capabilities of a single responding agency, even the entire UN system.</p>	
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## Annex 25 Abbreviations

ACDC: The Arms Control, Disarmament, and WMD Non-proliferation Centre

AJP: Allied Joint Publication

AWAC: Airborne Warning and Control Systems

BCPR: Emergency Relief Coordinator

BWC: Biological and Toxin Weapons Convention

CBRN CoE: Chemical, Biological, Radiological and Nuclear Risk Mitigation Centre of Excellence

CBRN: Chemical, Biological, Radiological and Nuclear

CBRN-JAT: CBRN Joint Assessment Team

CCOMC: Comprehensive Crisis and Operations Management Centre

CEP: Civil emergency planning

CEPC: Civil Emergency Planning Committee

CIG: Crisis Identification Group

CIMIC COE: Civil-Military Cooperation Centre of Excellence

CIMIC: Civil-Military Cooperation

CJ-CBRND-TF: Combined Joint CBRN Defence Task Force

CMA: Civil-Military Analysis

CMDR COE: Crisis Management and Disaster Response Centre of Excellence

CMI: Civil-Military Interaction

CMX: Crisis Management Exercises

COVID-19: Coronavirus disease

CWC: Chemical Weapons Convention

DLK: Democratic League of Kosovo

DR: Disaster Relief

EADRCC: Euro-Atlantic Disaster Response Coordination Centre

EADRU: Euro-Atlantic Disaster Response Unit

EAPC: Euro-Atlantic Partnership Council

ERC: Emergency Relief Coordinator

ESDC: Emergency and Security Challenge Division

EU: European Union

FMA: Foreign Military Assets

GDACS: Global Disaster Alert and Coordination System

HCT: Humanitarian Country Team

HQ: Headquarters

IASC: Inter-Agency Standing Committee

ICCG: The Inter-Cluster Coordination Group

ICRC: International Committee of the Red Cross

INSARAG: The International Search and Rescue Advisory Group

ISAF: International Security Assistance Force

JCBRN Defence COE: Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence

JFC: Joint Force Command

JFC: Joint Force Commanders (when referring to AJP 3.4.3)

KFOR: Kosovo Force

KLA: Kosovar Liberation Army

LEMA: Local Emergency Management Agency

MCDA: Military and Civil Defence Assets

MNCG: The Multinational NATO CIMIC Group

MOU: Memorandum of Understanding

NAC: North Atlantic Council

NATO: North Atlantic Treaty Organization

NGO: Non-Governmental Organization

NIMP: NATO Information Management Policy

NMA: NATO Military Authority

NPT: Non-Proliferation Treaty

NRF: NATO Response Force

OSCE: Organization for Security and Co-operation in Europe

OSOCC: On-Site Operations Coordination Centre

PCC: Prague Capabilities Commitment

PESCO: Permanent Structured Cooperation

PfP: Partnership for Peace

PRT: Provincial Reconstruction Teams

RDC: Reception and Departure Centre

RDT: Resource Dependence Theory

SACEUR: Civil-Military Cooperation Centre of Excellence

SCEPC: Senior Civil Emergency Planning Committee

SHAPE: Civil-Military Cooperation Centre of Excellence

SOFA: Status of Forces Agreement

TA: Technical Agreement

UN: United Nations

UNAMA: United Nations Assistance Mission in Afghanistan

UN-CMCoord: United Nations Civil-Military Coordination

UNDAC: United Nations Disaster Assessment and Coordination

UNDPKO: United Nations Department for Peace-Keeping Operations

UNDRR: United Nations Office for Disaster Risk Reduction

UNHCR: United Nations High Commissioner for Refugees

UNISDR: United Nations International Strategy for Disaster Reduction

UNOCHA: United Nations Office for the Coordination of Humanitarian Affairs

UNOCT: United Nations Office of Counter-Terrorism

UNPROFOR: United Nations Protection Force

USA: United States of America

USAR: Urban Search and Rescue

USG: United Nations Office for Disaster Risk Reduction

WFP: World Food Program

WHO: World Health Organization

WMD: Weapons of Mass Destruction

## CBRN DEFENCE IN 2030 AND BEYOND

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## Executive Summary

This paper aims to find out what the role of NATO is when it comes to Chemical, Biological, Radiological, and Nuclear (CBRN) defence in 2030 and beyond. It was found out that NATO, as a guardian of freedom and security in the trans-Atlantic region, should better integrate CBRN defence into the Alliance. This is because of the erosion of CBRN non-proliferation agreements, the lowering of the barrier to the acquisition and use of CBRN material, and the recent use of CBRN material on NATO member's soil and neighboring regions of the Alliance. Moreover, several threats and threat multipliers were identified, which serve as "drivers for instability". Those threat multipliers are climate change, emerging and disruptive technologies (EDTs), information warfare, hybrid techniques, pharmaceutical-based agents, and migration. Because of this changing security environment with multiple threat actors and threat multipliers, there are certain expectations at the political level that need to be discussed. Additionally, NATO and the EU need to "reinvigorate" their relationship and improve cooperation in order to eliminate duplication of efforts and enhance coordination, and it was proposed to set up a standing political liaison office to function as a link between the two organisations and their respective CBRN projects/bodies/formats. Furthermore, this paper contains a brief section about the opinions of relevant personnel involved in CBRN defence, and it was found out that the possible most impactful EDTs in the future might be coming from the fields of biotechnology and artificial intelligence (AI). Also, the importance of CBRN defence as a whole government approach has been stressed during the discussions as well as the possible addition of a fifth pillar<sup>1</sup> in regard to NATO's Centres of Excellence (COEs) and their role in times of crisis. Lastly, several requisite capabilities and proposals to reach those capabilities were presented in the last two sections. They were mainly focused on CBRN defence in the NATO Command Structure (NCS), NATO Force Structure (NFS), Allies; CBRN Intelligence / Warning and Reporting / Knowledge Management; CBRN Medical; Arms Control, Disarmament and Weapons of Mass Destruction (WMD) non-proliferation (ADN); Resilience/Civil-Military Interaction; Training; Outreach; EDTs; Operational / Tactical CBRN Capabilities. The proposals taken from the conclusion are presented below. For further clarification of the bullet points turn to the conclusion section, where the rationale behind some of the points has been elaborated on.

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<sup>1</sup> The four pillars of NATO COEs are Education, Training, Exercise, and Evaluation (ETEE), Analysis and Lessons Learned (ALL), Doctrine Development and Standardization (DDS), and Concept Development and Experimentation (CDE).

**CBRN defence in NCS, NFS, and NATO member countries**

- NATO should encourage and guide Allies to have proper CBRN expertise in their command structures and forces.
- The re-establishment of NATO HQ WMD Centre might be considered in order to ensure that CBRN/WMD considerations are addressed at the political and strategic level. An annual NAC/WMD Seminar should be re-introduced to raise awareness of political/strategic stakeholders in NATO for CBRN Defence/WMD related issues. 2
- In parallel, the information management and cooperation between separate CBRN officers at different branches of the Supreme Headquarters Allied Powers Europe (SHAPE) might be analysed comparing with a possible/previous CBRN/WMD directorate.
- Standardization of CBRN personnel knowledge requirements as it refers to cyber, hybrid, and cognitive warfare is required through easily accessible courses for broader audiences such as Advanced Distributed Learning (ADL). 2
- Similar to NATO COMEDS, the Committee of CBRN Defence Chiefs in NATO (CO-CBRND- CS) should be set up as the senior committee for CBRN defence within the Alliance.

**CBRN Intelligence / Warning and Reporting / Knowledge Management**

- Although the Allies are working to enhance CBRN-related intel capabilities/analysis, the NCS and NFS and NATO supporting organizations should increase these capabilities as well. 2
- For information sharing of CBRN-related data, there should be a common platform, which can be either the NATO Communication and Intelligence Agency (NCIA), the NATO Intelligence Fusion Centre (NIFC), or even the Joint Chemical, Biological, Radiological and Nuclear Defence Center of Excellence (JCBRN Defence COE), as it already has a Reach Back Intelligence officer as part of NATO's CBRN Reachback capability. 2
- The JCBRN Defence COE should keep up the intense work set up by the CBRN Lessons Learned Community of Interest, supported by the previously proposed CO-CBRN-CS that, based on the comparison of the effectiveness of medical and CBRN Lessons Learned (LL) systems, would be a key element of this process.

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2 The JCBRN Defence COE possible contribution to some of those points can be found under Appendix F.

**CBRN Medical**

- Include traumatic injuries in CBRN Medical planning.
- CBRN medical capability will be extremely useful in the future, given the increased survivability after CBRN decontamination of injured personnel and the new, unusual pandemics caused by climate change or migration in the Euro-Atlantic region.
- Due to the COVID-19 pandemic as well as to the changed security environment the cooperation between medical CBRN protection and intelligence and the CBRN defence side of the medal should be increased. 2

**ADN**

- NATO's arms control effort (a platform for technical and political consultation) will be successful if partnership and trust building are extended to regional multinational organizations.

**Resilience/civil-military interaction**

- NATO Allies should encourage cooperation among the national Industrial Security Agency and CBRN **experts** to increase the resilience of critical infrastructure.
- CBRN support for dealing with mass casualties, disruptive health crises, or other supporting tasks can be managed by common, advance response planning and common training, therefore, NATO forces and/or neighboring countries should participate in related national exercises.
- Procedures and interoperability of CBRN defence capabilities for cross-border mitigation of CBRN events should be established and trained.

**Training**

- Critical non-CBRN specialized capabilities should be validated under realistic conditions, such as a major Joint Exercise.
- Implement regular CBRN/WMD seminars at NAC level.
- Civil-military scenario-based training, including cross border scenario, to enhance resilience of society of member states.
- Training of CBRN forces should consist of extreme weather conditions that require both quick and flexible planning and cooperation between Allies. 2
- Improved common training of CBRN assets with all forces including the special forces and law enforcement is necessary both at the national and NATO levels.
- Improved common training of CBRN assets with Medical capabilities is necessary both at the national and NATO levels.
- Mission-critical NATO forces have to be trained to be able to continue the operation in a CBRN environment.

**Outreach**

- Parallel or coordinated NATO-EU exercises based on a commonly agreed scenario, including CBRN events would increase trust building, information sharing, and NATO's, EU's and national resilience as well as civil preparedness. Error! Bookmark not defined.
- Introduce a liaison element to improve coordination and information sharing on the geo-political, strategic, operational, and tactical level between different NATO and EU organisations/projects/formats.
- Establish policy, processes, and formats to enhance NATO-EU cooperation throughout all levels, increasing interoperability, avoiding duplication of efforts, tackle identified common areas of interest in a comprehensive approach.

**EDTs**

- NATO, EU and allied nations should become more vigilant when it comes to small but capable, emerging Research & Development entities. 2

**Operational / Tactical CBRN Capabilities**

- Nations should develop highly deployable and interoperable CBRN defence forces that are able to face both full-scale multi-domain conflict as well as special CBRN defence tasks. This requires both conventional and widely developed CBRN capabilities, like the CBRN Multirole Exploitation and Reconnaissance Team (MERT).

## 1 Introduction

NATO's fundamental purpose has been largely contested over the previous decades. However, at present, its purpose is becoming more unambiguous as great-power competition is becoming the norm again and global threats continue to emerge and evolve. Because of this, the need for collective security and stability within the transatlantic region, in which NATO has a crucial role, is growing as challenges are maturing and becoming considerably more complex, making it virtually impossible for a single nation to face them alone. (NATO 2030 Report) Those prominent challenges and new areas of defence are forcing an adaptive reaction from NATO and its Allies, which requires the Alliance to consider establishing new capabilities and making new policy decisions related to the latest adopted NATO Strategic Concept. There is a great deal of new obstacles and political-level toils that NATO must deal with, in spite of that fact, this research paper will concentrate only on the CBRN defence / WMD proliferation domain and matter that could directly or indirectly affect those two areas. In addition, the relationship between NATO and the EU with regard to CBRN defence will be examined, specifically looking at the cooperation between the two organizations. Therefore, this paper's main aim is to analyse NATO and EU strategic-level documents in order to provide answers for NATO's CBRN defence role in 2030 and beyond. One of the documents that will be explored is the "NATO 2030: United for a New Era" report that was written by an independent reflection group appointed by NATO's Secretary General. Other documents that will be analysed and serve as a foundation for this paper include but are not limited to NATO's CBRN Defence Policy dated June 14th, 2022, NATO's current Strategic Concept approved on June 29th, 2022, the January 10th, 2023, Joint Declaration on EU-NATO Cooperation, EU's Strategic Compass adopted on the 21st of March 2022, and other relevant literature stemming from academic peer-reviewed journals and articles.

The rest of the paper is organised as follows: The second section of this study will consist of a comparison of the previous and current NATO CBRN Defence Policy in order to find out how the global security has shifted and what that means for the threats of today and in the future with regard to CBRN defence; The third section will concentrate on the emerging political level expectations as a result of the evolving security environment. Furthermore, an element of those political level expectations, namely the cooperation between NATO and the EU, will be briefly examined. The fourth section contains thoughts, gathered by the means of discussions/interviews with CBRN-related personnel working in a range of organizations; The fifth section will include some of the necessary capabilities based on the information of the previous two sections that NATO would potentially have to improve or introduce to be able to adapt to the changing CBRN defence environment; The sixth and final section shows the conclusions related to the previous sections and includes several proposals/recommendations with an explanation of the rationale behind them. Lastly, the Appendices includes additional information regarding the topics discussed and the potential contribution of the JCBRN Defence COE to NATO's CBRN defence.

## 1.1 Limitations

There are a few limitations to this research paper. One of those limitations is that the documents that will be analysed will have a maximum classification level of unclassified information. That is because this study does not have access to classified documents. This could be considered one of the limitations of this paper because it limits the information horizon. Furthermore, some of the official documents are written in a manner that would allow them to be released to the public. For this study, this is consequential due to the fact that the person analysing those documents needs to, on some occasions, interpret information and try to puzzle certain elements together, effectively giving more room for errors in the research process.

## 2 Changes in the global security

The global CBRN security challenges have been growing at a rapid pace in the last fourteen years. This growth is evident when comparing “NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats” document in 2009 and “NATO’s Chemical, Biological, Radiological and Nuclear (CBRN) Defence Policy” in 2022. Throughout this paper “(NATO, 2009)” refers to the former policy and “(NATO, 2022)” refers to the latter. The NATO 2022 policy is relatively more complex, building on the previous, notably in the area of current and emerging threats. In the 2009 CBRN Defence Policy, precedence was given to the acquisition and use of Weapons of Mass Destruction (WMD) by terrorist organizations. On the other hand, in the 2022 CBRN Defence Policy precedence was given to the collective defence in a world where the international norms are being undermined and states are becoming just as likely as terrorists to utilize CBRN material on NATO member territory. Furthermore, it also seems that the importance of keeping up with the threats by developing and investing in relevant capabilities to ensure deterrence has been stressed even more. (NATO, 2022; NATO 2009) NATO’s civil and military budget for 2023 has increased, by more than twenty five percent, “reflecting the ambition” of the Alliance to face the changing global security environment. (NATO agrees 2023 budgets, reflecting higher ambitions for the new security reality, 2022)

There are many other developments that have been reflected in the current CBRN Defence Policy. One of those developments is the establishment of the organization's principles and commitments when it comes to CBRN defence. (See Figure 1) The two core principles and commitments are "Enhanced and Integrated Military CBRN Defence Capabilities" and "Resilience Against CBRN Threats". Those principles and commitments are surrounded by the strategic enablers, out of which the scientific and technical collaboration, capacity building as well as medical support have been adopted and elaborated on in the new Policy. The rationale behind the scientific and technical collaboration

is that in an ever-changing environment, innovation is a key element, as it is driving the development of CBRN threats. Some of those threats include new ways of delivering CBRN material, enabling new biological and chemical material as well as lowering the barriers to proliferation (this will be elaborated on in the following sub sections). The other new strategic enabler is capacity-building for military and civilian personnel. This enabler contributes to the principles and commitments by improving the capacity and expertise of all personnel, which includes civilians as well. It focuses on education, training, and exercise and aims to bolster preparedness in case of an emergency. The reason this strategic enabler was added is that education, training, exercises, and evaluation are of the utmost importance when it comes to enabling the Allies to confront the threats of today. Furthermore, there are multiple COEs that are providing expertise for the Alliance's defence capabilities. The JCBRN Defence COE in particular acts as the focal point for CBRN defence-related analysis, innovation, and insight, as well as providing training and support to NATO analysis, programming and more <sup>3</sup> for CBRN defence, while avoiding duplication of effort. The last new strategic enabler is medical support, and it focuses on improving the medical capabilities and investing in future research in that domain in order to aid the recovery phase of an incident. (NATO, 2022; NATO 2009)



Figure 1: NATO's Principles and Commitments for CBRN Defence | Source: (NATO, 2022)

<sup>3</sup> Specific support activities include operational planning support, NATO CBRN Reachback, modelling & simulation, etc.

To sum up, since the development of the 2009 CBRN Defence Policy and the expanding threat landscape, many elements had to be accounted for and elaborated on for the creation of the current CBRN Defence Policy. Hence, in the next sub-section relevant threats as well as the factors that exacerbate the way of defending against them will be inspected for the purpose of getting a clearer image of how those threats are shaping NATO's CBRN Defence Policy and defence operations.

## 2.1 Threats

There are multiple threats and developments that are affecting the CBRN defence and the international regimes against CBRN weapons (See Figure 2) and need to be accounted for. Some of the threats are state actors that are undermining international law and opposing non-proliferation, non-state actors that are seeking the acquisition of CBRN material for malicious intent, as well as cyber actors<sup>4</sup>. The main state actor that is of concern is the Russian Federation and its recent illegal and unprovoked invasion of Ukraine. Russia has a history of developing chemical and biological weapons, dating all the way back to Soviet programs. (Leitenberg, 2001; NATO 2022) Moreover, this state actor has continuously been against international non-proliferation tools and regimes. In addition to this anti-non-proliferation stance and the geopolitical aggression of expansionist Russia, there is evidence of the use of Novichok (a type of fourth generation agent) to conduct assassinations outside the country's border, such as the Salisbury incident in 2018, where a former Russian double agent was targeted as well as the attempted assassination



Figure 2 Weakening of International Regimes against CBRN weapons | Source: "EU preparedness and responses to CBRN threats", 2022.

of the anti-corruption activist Alexei Navalny in 2020. (NATO 2030: United for a New Era, 2022) All of this shows that the Russian Federation disrespects the international law and the global norms. Other state actors include the People's Republic of China, Syria, the Democratic People's Republic of Korea (DPRK) and Iran. China, together with Russia, has been known to attack organisations dealing with the prohibition of chemical weapons, such as the Organization for the Prohibition of Chemical Weapons (OPCW). Syria has been known to evade strict treaties that prohibit the

<sup>4</sup> The potential cyber actors could range from terrorists, covert agents and disgruntled employees to state/non-state (Radoini & Siddiqui, 2021)



production, storage, and weaponization of chemical material as well as violating agreements and actually utilizing warfare agents. Because of this Syria is able to possess important chemical weapon capabilities such as blister agents (sulfur mustard) and nerve agents (sarin). (Domingo & Pita, 2014) Besides, after OPCW's fact-finding mission in Syria, it was discovered that the use of mostly Chlorin (sulfur mustard and sarin as well) by the Syrian government was prevalent. (OPCW, 2022) The DPRK has been expanding its nuclear arsenal and missile capabilities (Gentile et al., 2019) in violation of a relevant UN Security Resolution, as well as showing the regime's willingness to use a nerve agent outside of its borders, just like the Russian Federation. (Farrell, 2020; Borger, 2017; Weidner et al., 2019) Lastly, Iran has been expanding its missile capabilities and developing its nuclear program necessitating NATO's vigilance. This has also been amplified by Iran's "...ongoing, active missile proliferation demands...". (NATO, 2022)

Even though state actors are becoming an increasing CBRN security challenge, non-state actors are continuing to seek the acquisition of WMD and more advanced delivery capabilities in order to use them on NATO member states' territory. See Appendix A for more information on potential CBRN attacks. Terrorist organizations in particular have been known to believe that CBRN material has the potential to cause severe damage and instill panic into Allied populations as well as strain national capabilities. Additionally, there is a history of the use of such weapons by terrorist organizations. An example would be the non-state actors' usage of chemical weapons in Syria, Iraq, and Japan. Cyber actors also pose a threat for the security of NATO because a successful attack on the communications and information systems of the Alliance could undermine the response and prevention to a CBRN incident. (NATO, 2022) Equally dangerous are also cyber-attacks targeting critical infrastructure, specifically CBRN control systems and industrial control systems. Such an offensive cyber operations could disrupt a country's processes as well as endanger the lives of people globally. (Mugavero et al, 2018) A stark example of such cyber-attack is the 2010 Stuxnet attack on Iran which showed how information technology could trigger a remote CBRN attack and be a direct threat to physical CBRN equipment. (Collins & McCombie, 2012) In this case, the malware's purpose was to sabotage the Iranian nuclear program by targeting a programmable logic controller, which controls machinery and industrial processes such as the gas centrifuges used to separate nuclear material. This means that critical infrastructure, such as power plants, public and private medical services, transportation networks, and the chemical industry, could be targeted by a malicious actor, with grave consequences for citizens and society's health and security. (Mugavero et al, 2018) For instance, on the fifth of February 2021, a U.S. water treatment plant in Florida was a subject to a cyber-attack. The cyber actor managed to increase the level of a chemical substance called sodium hydroxide by a hundred times higher than the norm. This substance, used to cleanse water, in higher doses can cause lye poisoning. (Radoini & Siddiqui, 2021; Comber-Wilen, 2022)

## 2.2 Threat multipliers

Threat multipliers in this section are described as elements that can exacerbate certain CBRN situations, increasing the difficulty of dealing with them and/or assisting the ease with which threat actors can conduct security breaches, acquire prohibited CBRN material, or exploit “backdoors”. Essentially, this means that threat multipliers “have the potential to exacerbate other drivers of insecurity” and can be labelled as “accelerants of instability.” (Werrell & Femia, 2015) There are many such elements, however, some of the most important ones will be mentioned. Some of those threat multipliers that will be discussed include climate change, EDTs, information warfare, hybrid techniques, pharmaceutical-based agents (PBAs), and migration. (NATO, 2022) Those threat multipliers will most likely have diverse effects on the global security in 2030 and beyond in regard to the CBRN defence realm.

### *Climate Change*

The effects of climate change continue to influence the military services, especially in the area of CBRN defence. Consequently, due to the domino effect of natural disasters, the likelihood of more requests for military contribution in consequence management (including CBRN) will most likely continue to grow unabated as we approach 2030. Along with the increase in operations, people, installations, and equipment will be affected specifically in regard to some of the general principles that address hazards of CBRN origin (protection of people and equipment, contamination avoidance, decontamination). In particular, individual protection against heat would be a concern, especially in locations such as in the Middle East or Central Asia where the effects of climate change are more extreme. Additionally, extreme weather fluctuations are expected to be prevalent throughout Europe as well; affecting the use of personal protective equipment (PPE), such as protective gloves, masks, hoods, cloth and overboots, which limit a person’s natural ability to dissipate and dispose of heat. This means that there will be a need for certain types of cooling vests to help soldiers’ bodies deal with the heat. Another concern stems from the prevention of contamination in cold weather operations. Typically, heated shelters are utilized, and cold weather combat effectiveness and success usually depend on them; however, frozen agents tend to have an increased difficulty of detection because of the lack of vaporization in such conditions. Because of this, there will be a need for detection capabilities in the shelter itself because it is possible that an agent is not detected, and a soldier could bring contamination inside the shelter. (Halász et al, 2012; Padányi & Földi, 2016)

One more way climate change is affecting CBRN operations concerns the CBRN Reconnaissance System which includes agent detectors, radiation detectors, sampling equipment, and warning equipment. All of this equipment is catered to a specific humidity level and temperature; hence, equipment in weather that is not designated for it will show invalid data due to the possible change in response time and sensitivity, which makes interoperability difficult for NATO troops

from different climates. Moreover, air pollution such as dust or fog could alter the measurements as well. (Halász et al, 2012; Padányi & Földi, 2016)

Furthermore, the efficacy of CBRN decontamination when the temperature is below 0 °C is limited. Present decontamination procedures (chemical) rely on water rinses, which are less effective in freezing conditions. This is significant because water irrigation is an essential process for chemical decontamination procedures. Additionally, the lack of water in hot weather is also affecting decontamination. On some occasions, salt water could be used as a substitute for fresh water during typical decontamination operations; however, equipment should eventually be rinsed with fresh water to avoid corrosion. For CBRN defence in the future, this means that there will be a need for a different kind of decontamination system that could also be more deployable, and hence more effective in a scarce environment. (Halász et al, 2012; Padányi & Földi, 2016)

Additionally, climate change can also foster the emergence of zoonotic illnesses, which could result in pandemics. The potential of new illnesses could pose a risk with regard to WMD proliferation, as threat actors could try to weaponize them. (NATO, 2022)

### *Emerging and Disruptive Technologies*

As we are currently in the era of the Fourth Industrial Revolution, characterized by an exponentially increasing rate of innovation. This innovation is fostering EDTs and is shaping the global security environment, which results in new risks, vulnerabilities, threats, and fears. Nevertheless, this rapid advancement in science and technology can also be utilized to implement new defence capabilities. Those possible risks and opportunities also apply to the realm of CBRN defence. Because of this, it is important to address the challenges posed by the EDTs and strengthen the CBRN defence. There are many EDTs that have a direct or indirect effect on CBRN defence, some of which are: 1. additive manufacturing (also known as 3D printing), 2. unmanned aerial vehicles (UAVs), 3. synthetic biology (including genome editing), 4. cyber-attack component (malware), 5. the internet (and digital currencies) and 6. artificial intelligence (AI). (NATO, 2022; Koblenz, 2020) Those will be the EDTs discussed in the following paragraph.

1 – The 3D printing market continues to grow and is expected to reach over thirty-four billion US dollars globally by 2024. This is mainly due to the usefulness of additive manufacturing, which allows an individual owning a 3D printer to manufacture objects from scratch and mold them into shapes that are impossible to do in a traditional way. This ability is possible given that the user has the raw materials required for the objective and a digital blueprint in the form of a file that could be shared over the internet in the same way terrorist organizations share bomb recipes. While commercial 3D printers can usually produce objects in plastic, there are many industries that use more advanced 3D printers to print objects in materials such as metal, ceramics, and biological tissue. Some of the industries making use of this capability are the nuclear and aerospace industries, which prove that 3D printers could also be used to produce high-strength and quality

parts. All of this means that malicious actors who can get access to an advanced 3D printer could attempt to print objects or parts that they cannot acquire in other ways. (Houser, 2019; Koblentz, 2020) This do-it-yourself proliferation opportunity could also be provided to non-state actors by a state actor in secrecy. By providing a malicious actor with a 3D printer and blueprints, a state could assist a non-state actor in building key components for weapons and equipment for chemical agents, while avoiding detection due to the fact that no internationally controlled materials or equipment are directly transferred. (Koblentz, 2020; Konnant, 2020) One of those components that could likely be 3D printed is tritium gas reservoirs which are used for the creation of modern nuclear weapons (see Figure 3). (Daase, Christopher, Dalnoki-Veress, Pomper & Shaw, 2019) 2 - UAVs could be utilized to enhance CBRN defensive capabilities<sup>5</sup> by serving as a platform for standoff detection, which involves looking for CBRN signatures at a distance. They could also be used to disable or stop CBRN delivery systems. Additionally, networked drones (or swarms) could aid in managing the effects and fallout of CBRN use in the case of a successful attack. (Kallenborn & Bleek, 2019) However, they can also be utilized by malicious actors, which could enhance their CBRN delivery and reconnaissance capabilities. The commercial availability of drones and the development of better and more capable UAVs means that they can also be weaponized by malicious actors. This weaponization also allows actors to deliver CBRN payloads with high precision from afar, thanks to the developing technical components of modern drones. Additionally, there is a history of non-state actors utilizing drones as weapons and tools to gather intelligence. For example, there have been instances in France and the United States where anonymous operators gather intelligence on nuclear sites, including nuclear reactors and strategic nuclear weapon's facilities. Another example is the drone used to drop radioactive material on the roof of Japan's former prime minister Shinzo Abe. Even though the object's radiation level was not high enough to cause any substantial harm, it identified potential dangers of drones and vulnerabilities of government buildings. (The Guardian, 2015) Given all of this information, it is not too far-fetched to assume that a malicious actor could use a weaponized UAV equipped with a CBRN payload to conduct a large-scale attack with greater



'Figure 3 Typical Gas reservoir (unclassified) used for the creation of a nuclear weapon (design details classified) | Source: (Daase, Christopher, Dalnoki-Veress, Pomper & Shaw, 2019)

<sup>5</sup> For more information regarding the use of drone swarms to enhance CBRN defensive capabilities see Appendix B.

consequences. A Japanese cult used six liters of sarin in the Tokyo subway network in 1995 and managed to injure thousands. In contrast, a modern crop-spraying drone has the ability to carry, not six, but twenty liters of pesticides (or potentially sarin). All of those risks are exacerbated by the use of drone swarms, which could overwhelm certain defence capabilities. For instance, one of the world's largest oil refineries, Abqaiq located in Saudi Arabia, was knocked out by approximate twenty drones. Lastly, the global market for commercial drones is predicted to grow by over ten billion dollars a year by 2025. (Koblentz, 2020) 3 - Synthetic biology might provide capabilities that could be misused as well. Advances in such fields of biotechnology result in scientists being able to synthesize DNA, hence giving them the possibility to create entire viral genomes from scratch. This is significant for the global security as viruses that have been eradicated could be revived through synthesis conducted in a laboratory (such as horsepox). Furthermore, the variola virus that results in smallpox could be produced "by a skilled laboratory technician or undergraduate students working with viruses in a relatively simple laboratory". Moreover, a 2019 global survey of biosecurity practices concluded that companies that are selling synthetic DNA are not required by states to prevent "questionable parties" from purchasing such material. (Koblentz, 2020; Ahteensuu, 2017; Gawlik-Kobylińska, 2020) 4 - Cyber-attack components, in particular the use of malicious software also known as malware, could also compromise CBRN defences by targeting industrial control systems, as in the above-mentioned examples in section 2.1. In the recent years newer and more effective malware has been developed to target large industrial facilities, for example, the TRITON malware which emerged in 2017. There have been incidents where nuclear facilities have been targeted<sup>6</sup> and infected; however, until now, no radiation has been released as a result. Nonetheless, in 2018, the Nuclear Threat Initiative (NTI) concluded that one third of countries that have an inventory of nuclear material and facilities were lacking basic cyber-security standards, and two thirds of countries did not have plans in regard to the response to a cyberattack on nuclear sites. 5 - The internet, specifically the dark web and digital untraceable currency (e.g., bitcoin), create even more opportunities for the proliferation of CBRN material. Malicious actors could use the platform and its anonymity to get in contact with subject matter experts (rogue scientists looking to monetize their skills, do-it-yourself biologists, and amateur chemists) and purchase CBRN material. There are examples of this scenario happening. One of those examples was the sale of the toxins abrin and ricin by a Florida teenager in 2013 and 2014. Another example was an individual who managed to find buyers for abrin and cyanide in California and New York by advertising his skills and products on the Dark Web. 6 - Artificial intelligence is most likely going to become an inseparable element of future armed conflicts. (Bistrion & Piotrowski, 2021) It has applications in many fields, including the military, and could provide assistance in air, sea, land, and information warfare. Moreover, there is a high demand for

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<sup>6</sup> See Appendix C for a table containing the documentation by the NTI of sixteen cyber-attacks on nuclear facilities.

AI use in the defence sector, especially when it comes to tasks that require the processing of substantial amounts of data (Big Data Analysis). Nonetheless, AI could be utilized in a malicious way, whether by a state actor or a non-state actor. This in turn could destabilize the entire international system and spark a new type of standoff, characterized by unpredictability, increased danger and different in many ways from what it has been known until today. Furthermore, the combination of AI with cyberattacks on critical infrastructure (for example, nuclear power reactors) or strategic military targets could prove to be having paramount consequences for defence. Additionally, AI paired with machine learning could allow for the identification of alternative chemical synthesis strategies. Because AI is introducing new capabilities that could ensure an advantage over an opponent, there is a sort of cyberweapons arms race going on that is shrouding the nuclear arms race. This is because informational superiority in today's conflict is becoming increasingly crucial. (Sharikov, 2018)

All of those emerging and disruptive technologies usually have common elements that provide obstacles when it comes to the prevention of misuse. Some of those factors are the dual use of such technologies, the dependence on some sort of digital component, the powerful way in which those EDTs could transform entire fields or industries (disruptiveness), the lack of expertise needed to operate any of those technologies, and the speed at which EDTs diffuse as a result of globalization. (Koblentz, 2020; Martellini & Trapp, 2020)

The purpose of The Joint Chemical, Biological, Radiological, and Nuclear Defence Capability Development Group (JCBRND-CDG) is to support the development of CBRN defence capabilities across all lines of development, with a particular emphasis on doctrine, material, Knowledge Management, interoperability, and training. It is directed by the Military Committee Joint Standardization Board (MCJSB) and NATO Army Armaments Group (NAAG). The Group supports the development of capabilities within the Prevent, Protect, and Recover CBRN defence framework. It consists of seven panels namely the Doctrine and Terminology Panel (DTP), the Knowledge Management Panel (KMP), the Detection, Identification and Monitoring Panel (DIMP), the Hazard Management Panel (HMP), the Physical Protection Panel (PPP), the Training and Exercises Panel (TEP), and the Challenge Levels Panel (CLP). In the following graph (See Figure 4), the estimated relevance of certain EDTs for CBRN defence in the context of those panels is presented. Some of the most relevant EDTs for the JCBRND-CDG according to the graph are AI, Big Data Analysis (BDA), Biotechnology, and Novel Materials. As EDTs are unpredictable and could yield benefits for the development of CBRN capabilities or create more challenges the relevancy of EDTs for the panels and the whole capability development group could change at any time in line with the most important priorities at a given point. Moreover, each panel would have to be as alert as possible when it comes to different EDTs, even if at the moment they do not have a direct impact on their work. That is because of the exponential increase in innovation which could increase or decrease the impact and/or relevancy of an EDT to a certain panel.

NATO OTAN		Emerging and Disruptive Technologies (EDT) Estimated Relevance for CBRN Defence												
NAAG		AI (Artificial Intelligence)	BDA (Big Data Analytics)	QT (Quantum Technology)	Hypervelocity	Space	Autonomy	Biotech	Human Enhancements	Ubiquitous Communication (5G, 6G)	New Materials	Energy	Propulsion	
	IS/IMS	JCBRND-CDG	R	R	M			M	R	M	M	R	M	
DTP		M	M	M		M	M	M	M	M	M	M	M	
KMP		R	R							M				
CLP			R					R			R			
DIMP		R	R	M				R				M		
MCJSB	PPP							M	M		R	R		
	HMP	R	R	M			M		M		R	M	M	
	TEP													

H	highly relevant	R	relevant	M	moderately relevant		not relevant
H	highly relevant	R	relevant	M	moderately relevant		not relevant

Figure 4 Estimated Relevance of EDTs for CBRN Defence | Source: JCBRND-CDG

*Information warfare (disinformation and misinformation)*

Information warfare’s main impact is on the field of CBRN forensics, which deals with the evidence collected from an investigation and aims to establish scientifically accurate facts regarding CBRN incidents. This is crucial when deciding on a course of action after such incidents. Therefore, it is important that the information is accurate and clear as to whether CBRN material was used and whether the use was deliberate, accidental, or part of a natural phenomenon. This kind of information may even determine whether a country has justification to wage war on another country. Moreover, the suspicion of CBRN material or weapons adds additional complexity to any international or national conflict. However, establishing such information is usually difficult for varied reasons. One of those reasons is that not all CBRN incidents could be distinguished between natural phenomena and deliberate attack. For instance, a soldier may return from combat with injuries from toxic industrial chemical and this could mean that there was a deliberate attack, or that he/she was exposed to toxic waste or debris originating from a chemical factory that had been damaged earlier in the conflict. Furthermore, radiation detection equipment could indicate elevated levels of radiation, and this could be due to the encounter of an old radiological source or the potential detonation of “dirty bombs” also known technically as radiological dispersal devices by adversaries. Additionally, CBRN forensics is attempting to provide information about the

## CHEMICAL WEAPONS CASE STUDY 2017 KHAN SHAYKHUN ATTACK

### Deny

Russian Foreign Minister Sergey Lavrov falsely claimed the sarin gas attack at this location on April 4, 2017, was staged.

### Distract

On April 5, 2017, the Russian Ministry of Defence stated that the Syrian Air Force had destroyed an opposition's chemical weapons lab in the vicinity but provided no evidence.

### Deflect

At an Organisation for the Prohibition of Chemical Weapons meeting, Lavrov hinted that countries opposed to Russia and Iran were responsible for the sarin gas attack.



Figure 5 Russia's disinformation campaign after the 2017 Khan Shaykhun attack | Source: (U.S. Mission Italy,2022)

attribution of an incident and the provenance (the former meaning “who did it” and the latter “where did the stuff come from”), which states could attempt to skew. This is important mainly to distinguish between state actors, non-state actors, or non-state actors that have been used as proxies by state actors. An example is the assassination of a North Korean opposition leader with a nerve agent in a Malaysian airport by two citizens, one from Indonesia and one from Vietnam. This assassination is believed to be the work of the DPRK. (Kaszeta, 2018, Weidner et al., 2019) Information warfare, and specifically disinformation, is especially affecting CBRN forensics. Alternative narratives, fake news, conspiracy theories, and propaganda about CBRN matters could be utilized by perpetrators in order to shroud a situation, sow discord, and ultimately allow room for deniability of responsibility. Making use of those tactics in information warfare has been widely documented. In particular, there were many emerging alternative narratives when it came to the sarin nerve agent used in the war in Syria. (See Figure 5) Even when it seems that a certain situation is abundantly clear, such as in Khan Sheikhoun, Syria, where a CBRN attack was conducted from the air in a conflict where only one of the sides has air capabilities, summoned multiple alternative explanations. Furthermore, the information gathered by CBRN forensics is important when it comes to the protection of forces. That is because when deciding on what defence measures will be taken, it is critical to have the exact knowledge of the physical characteristics of a CBRN material rather than to rely upon general guidelines. (Kaszeta, 2018)

Additionally, CBRN forensics is facing a variety of challenges, such as balancing time and safety (when it comes to fragile and short-lived agents), gathering trace samples (with biomedical sam-



ples being the most difficult to obtain), preserving the integrity of the samples, residing capabilities in disparate organizations (such as the fire department), and more. (Kaszeta, 2018) These challenges, paired with the problems stemming from misinformation and disinformation that were explained in the previous paragraph, are enough to consider information warfare a threat multiplier, as it increases the difficulty of operational, judicial, and policy CBRN-related responses, which in turn exacerbate certain CBRN situations and allow adversaries to abuse them.

### *Hybrid techniques*

Hybrid techniques or “hybrid warfare” could also be a threat multiplier when dealing with an adversary. That is because of the nature of hybrid attacks, which could be diverse and could be conducted across a wide range of areas (such as military, economic, political, information, financial, legal, etc.). The main objective of that type of attack is to create ambiguity and denial about the bigger, longer-term aim of the adversary while gaining an advantage. This means that an adversary would want to shroud a situation and claim pursuit of legitimate aims and goals to keep their actions below a perceived threshold that would kick-start a coordinated response from the international community. Moreover, in a conflict, competitors could use all forms of war and tactics in a simultaneous mix, including propaganda, information manipulation, economic coercion, energy supply chain manipulations, cyber-attacks, and CBRN material use. The use of CBRN materials in particular could elevate the toolkit in a hybrid warfare scenario. A hybrid attack in the form of a sabotage of nuclear power plants, biological labs, chemical industrial facilities, or private biotechnology companies could result in consequences that are similar to those of an attack with CBRN agents, without the possibility to identify the perpetrator swiftly and indubitably. Furthermore, if such an attack is combined with a cyber-attack against communications (which could delay emergency response), and on top of that if an additional method/technique is incorporated, could increase the difficulty of dealing with the situation and call for greater resilience in the hybrid warfare domain. (Ducaru, 2016) In addition, the development of new CBRN material that is not prohibited in existing internationally adopted documents may create an opportunity for CBRN use, which, in parallel with hybrid techniques, will be characterized by harder detection, tracing, and investigation. (NATO, 2022; Ducaru, 2016) The use of conventional and unconventional techniques together might become the “meta” of today’s conflicts and will most likely be the new modus operandi for the near future as opposed to traditional warfare. (Miller, 2015)

### Pharmaceutical-Based Agents

Pharmaceutical-Based Agents (PBAs) (See Figure 6 for the position of PBAs within a CB Threat Spectrum) also known as Central Nervous System (CNS) Acting Chemicals share one of the characteristics of EDTs, which is the danger of their dual use. This dual use of medical - to produce analgesic or sedative effects in a hospital setting and illicit such as illegal sales and illegal use makes PBAs harder to detect, respond to and protect against. This further development could also hinder the constraint on PBAs imposed by the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction (CWC), which limits their use. Furthermore, some of the substances which are part of the PBAs, specifically the increased amount of illegally manufactured fentanyl and fentanyl analogues, has increased the threat posed by PBAs hence the rise of the term “opioid epidemic”. Consequently, large quantities of illegally synthesized novel PBAs are creating a significant risk of accidental exposures or major deliberate releases. (NATO, 2022; Heslop & Blain, 2020; JCBRN Defence COE, 2021)

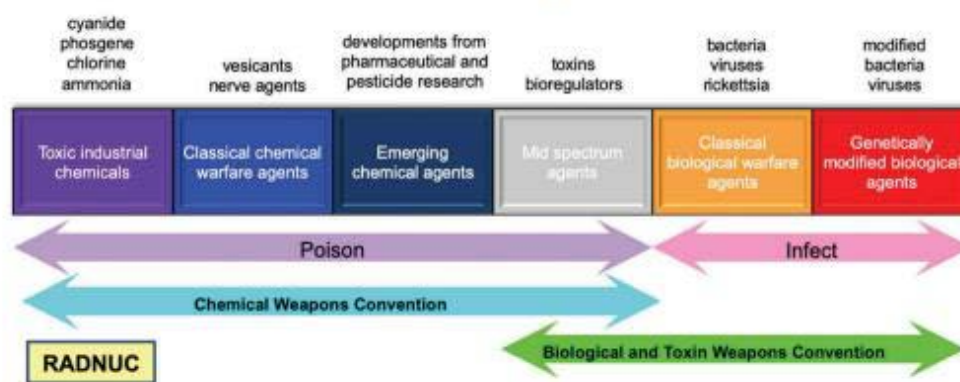


Figure 6 CB Threat Spectrum | Source: (Heslop & Blain, 2020)

Moreover, further development of PBAs and their dual use could encourage chemical weapons application. This development of the CNS-acting chemicals for "law enforcement" and possibly as a new class of chemical warfare agents is a potential drawback of these novel medical advances. The military's interest in incapacitating biochemical weapons has increased in recent years, as scientific and technological advancements have produced new "non-lethal" weapons that can be employed in a variety of politically or militarily difficult situations. Especially the PBAs that have military classification of non-lethal "incapacitating agents" (ICAs), which are able to inflict temporary mental or physical impairment of a target for hours or days post-attack. Nonetheless, when a victim is exposed to severe concentration or over exposure to ICAs the substances may cause death. The development and storage of such chemicals for law enforcement purposes would increase the likelihood that they would be employed in violation of the CWC. (JCBRN Defence COE, 2021)

Riot control agents (RCAs) are chemical agents defined as “any chemicals that can produce rapidly in humans’ sensory irritation or disabling physical effects which disappear within a short time following termination of exposure”. RCAs are not to be confused with CNS-acting chemicals as the main difference between the two is that the former targets the peripheral nervous system while the latter targets the central nervous system. Other differences are the lasting effect, which CNS-acting chemicals last longer, and the medical attention needed for recovery, which differs for both types. (JCBRN Defence COE, 2021)

Each State Party (of the CWC) agrees not to employ RCAs as "methods of warfare." However, the term "method of warfare" is not defined in the CWC, and the Convention's policy-making organs have not provided additional clarification of Article 1.57. In addition, because "method of warfare" and "law enforcement" have not been defined and the line between them has not been drawn, there are varying interpretations of which activities are permitted across this spectrum. While the majority of states uphold a broad interpretation of this prohibition, the Russian Federation has long held that RCAs can be legitimately used for a variety of non-offensive actions by military forces present in certain areas of armed conflict or counterinsurgency operations. Simultaneously, a concerted effort is made to employ substances with a more pronounced effect for the specified purposes. Although most nations have abandoned the potential use of CNS-acting chemicals for these purposes, other nations and non-state actors continue to find them attractive. Recommendations for NATO regarding PBAs can be found in the appendices under Appendix D. (JCBRN Defence COE, 2021)

### *Migration*

Mass migration is having diverse effects on the global security. For CBRN defence, mass migration could mean the spread or introduction of a new disease on NATO members’ soil or in the surrounding region, which could foster pandemics. Those pandemics, such as COVID 19, illustrate how a massive healthcare catastrophe paired with economic damage could “sicken” an alliance as well. The problem of defence spending and burden-sharing among NATO members becomes increasingly difficult when such pandemics are present. That is because many countries will prioritize economic recovery instead of defence spending. (Gvosdev, 2020) The illicit trafficking of CBRN material could also be affected by migration. Dispersion of CBRN materials is of concern, and the safe management of those materials is of the utmost importance in order to make sure that the exact location and control of the transport are certain. If the safe management

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7 Article 1.5 of the CWC states: “Each State Party undertakes not to use riot control agents as a method of warfare.”

of those materials fails, they can land in the hands of an unauthorized user. (Bruno et al., 2018) Mass Migration could increase the difficulty of detection and interception of CBRN materials as the amount of people moving from one geographical area to another is increasing. Moreover, climate change is also forcing people to migrate, and by 2070, approximately 19% of the world will be an uninhabitable hot zone, meaning that billions of people will most likely migrate, which in turn would strain border control.<sup>8</sup> (Lustgarten, 2020)

**CBRN Threat Multipliers Mind Map**

The illustration below (See Figure 7) is a mind map containing the threat multipliers included in this paper and serves as an overview. The way in which the mind map functions is that there is a central theme, in this case “threat multipliers”, and there are the related ideas/concepts which radiate from the center. In this way, the knowledge is mapped and gives a better understanding of the concepts explained above. However, due

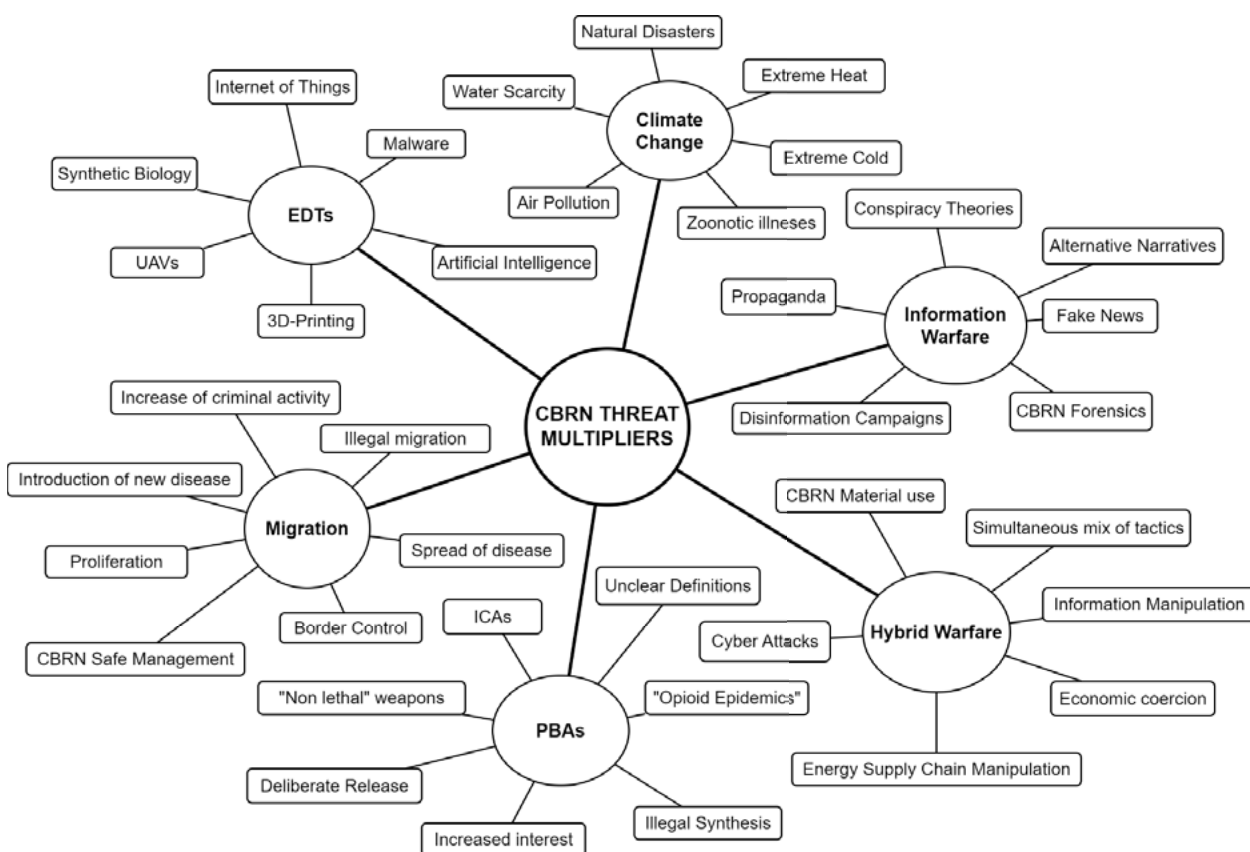


Figure 7 CBRN Threat Multipliers Mind Map | Source: Created by the author utilizing “draw.io”

<sup>8</sup> For example, the border between Mexico and the US.

to the fact that this mind map is made to serve as an overview and essentially a short summary of the threat multipliers, it is not as extensive as it could be made and is covering only the ideas/concepts that have been discussed and elaborated on in the previous sub-sections.

### 3 Political level expectations

There are many political-level expectations that originate from the changes in global security; however, one particular political level expectation is of utmost importance, and it concerns the political “cohesion” of the Alliance. According to NATO 2030: United for a New Era, NATO members are not always united. Even though there is a general agreement of the security environment, it seems that different Allies have different ways of assessing the various threats. This divergence is hindering the internal coherence of the Alliance and is resulting in “internal strains.” Because of this, the report suggests that to address such political deficiencies, NATO must take a more proactive approach rather than a reactive one. This means that NATO should undertake an effort to adopt a long-term perspective and utilize the organization as a tool to shape its security environment instead of a tool to solely manage crises when they arise. Hence, Allies should deepen the political consultation among them when it comes to every type of security issue. (NATO 2030: United for a New Era, 2020) This need for the Allies to adhere to the process of consultation and seek consensus is central to the report. Because of this, the report focuses on the political dimension of the Alliance and does not refer as often to the military dimension because “NATO needs a process of political adaptation to match the progress made in the military sphere.” (Tardy, 2020) In this section, more political-level expectations based on the NATO 2030: United for a New Era 2020, the NATO CBRN Defence Policy 2022 and the EU’s Strategic Compass for Security and Defence will be presented in different regards. This is not an all-inclusive list, and there may be important CBRN-related political-level expectations that could have been missed. All of those expectations have a direct or indirect impact on CBRN defence, and the threat actors and multipliers affecting it.

#### ***CBRN in NATO Command Structure, NATO Force Structure, Allies***

- A sufficient degree of CBRN knowledge and personnel will be present across the NATO Command and Forces Structure, according to NATO. A top goal for NATO is the prompt introduction of CBRN Command and Control systems as a functional service. (NATO, 2022)
- Disinformation, hybrid tactics, and cyberattacks are all expected to continue to be components of CBRN occurrences in the future. These danger multipliers should be taken into account throughout the entire process of strengthening CBRN threat resilience, both at the NATO and national levels. (NATO, 2022)

***CBRN Intelligence / Warning and Reporting / Knowledge management***

- With the help of nations, NATO will ensure a stable and trialed CBRN warning and reporting network. (NATO, 2022)
- The incorporation of CBRN related intelligence, information, and analysis into all levels of the Alliance civil and military decision-making will be ensured. (NATO, 2022)
- Sharing intelligence with NATO partners helps with the response to CBRN threats. Allies are expected to be working to increase their contributions of national intelligence and expertise relevant to CBRN and will keep trying to make intelligence sharing more efficient, fast, and thorough. (NATO, 2022)
- Improve intel-sharing practices regarding hybrid tactics and terrorists' use of EDTs. (NATO 2030: United for a New Era, 2020)
- Conduct joint meetings of Defence and include relevant Interior Ministers to those meetings. (NATO 2030: United for a New Era, 2020)
- Creation of a coordination tool for information-sharing and collaboration between the member nations. (NATO 2030: United for a New Era, 2020)
- Increase awareness regarding hybrid techniques (shared terminology, situational awareness, and analysis on both operational and strategic level). (NATO 2030: United for a New Era, 2020)

***CBRN Medical***

- CBRN military medical capabilities will be suitably included into NATO's doctrines, policies, concepts, and capability development procedures since they are a crucial component of recovery from CBRN use. Military medical professionals will receive the necessary instruction, training, and preparation to identify CBRN threats and deliver efficient CBRN medical assistance or operational bio-response in an all-hazards environment. (NATO, 2022)
- NATO will continue to develop and improve the shared doctrines, standards, and policies that enable the CBRN defence capabilities and forces and promote the interoperability of the CBRN defence forces under the direction of the JCBRND-CDG. In order to provide the necessary structures for military medical contributions to CBRN defence, the military medical community will support these initiatives. (NATO, 2022)
- In compliance with national legal and regulatory considerations, CBRN medical skills will be able to support and advise military and civilian authorities within the proper medical, legal, and ethical frameworks. NATO will take the necessary actions to direct future research as well as the development of operational and strategic capabilities in this area. (NATO, 2022)

**ADN**

- In order to stop the spread of WMD and CBRN materials, their delivery systems, and associated materials and technology, it is essential to be able to execute countering WMD and interdiction operations, including by water. (NATO, 2022)
- NATO provides a forum for technical and political interaction between Allies and partners, even though it is not a party to any international treaties. This helps to improve global arms control, disarmament, and non-proliferation regimes and their contributions to the security. (...) To ensure compliance, uphold acceptable regimes, and enable credible attribution in the case of a CBRN occurrence, Allies will, if necessary, assist global investigation and identification systems. (NATO, 2022)
- All aspects of strategic risk reduction will be pursued, including encouraging predictability and confidence-building through discussion, deepening comprehension, and developing efficient crisis management and preventative measures. (...) NATO will serve as a forum for in-depth debate and close consultations on weapons control initiatives. (NATO, 2022)

***Resilience/civil-military interaction***

- Measures for CBRN readiness are included in the Baseline Requirements, particularly those that deal with maintaining government continuity and managing mass casualties or disruptive health emergencies. (NATO, 2022)
- NATO could give national authorities in the Allies more support in safeguarding pertinent key infrastructure. National authorities may request assistance from NATO resources, such as deployable forces and enabling capabilities, to improve their CBRN preparedness and consequence management. (NATO, 2022)
- In order to support CBRN defence, NATO will keep taking the required actions to improve civil-military interaction. (NATO, 2022)
- NATO will expand on the distinctive skills and knowledge that have been gained in crisis management. In order to do this, NATO will make investments in crisis management, preparedness, and response through routine drills and make use of the capacity to plan, carry out, and assist global crisis response operations. (Strategic concept - NATO 2022)

***Training***

- Major joint exercises will contain appropriate CBRN defence components, and events pertinent to the NATO HQ High Level Exercise Program will combine CBRN and NATO Crisis Response System related CBRN components. (NATO, 2022)

- NATO will keep making investments in the defence against threats from CBRN sources. To make sure that these criteria are included into the deterrence and defence posture, NATO will improve the policies, plans, training, and exercises, as well as evaluate the capabilities. (Strategic concept - NATO 2022)
- Continue incorporating terrorism in exercises and lessons learned. (NATO 2030: United for a New Era, 2020)
- Exercise response options in the context of hybrid threats, based on realistic scenarios with relevant actors (political, military, economic, etc.). (NATO 2030: United for a New Era, 2020)
- Incorporate pandemics and natural disasters into exercises. (NATO 2030: United for a New Era, 2020)

### **Outreach**

- Through two different and complementary lines of work—with international organizations and with NATO's bilateral partners—partnerships and outreach initiatives support NATO's efforts to counter CBRN threats. In accordance with current policies and procedures, NATO will continue to strengthen each of these in order to better understand regional and global CBRN risks, threats, and areas of associated responsibility and activity. NATO will also look for practical cooperation opportunities that increase mutual security, such as information sharing, exchanges on policy and standards, joint training, and exercises. (NATO, 2022)
- In order to combat CBRN concerns, NATO will continue to strengthen NATO-UN collaboration, particularly by assisting in the successful implementation of UN Security Council Resolution 1540 and other non-proliferation resolutions. As necessary, Allies shall cooperate in their respective national capacities at the UN to promote successful multilateral non-proliferation initiatives. (NATO, 2022)
- NATO and the EU may mobilize a wide range of measures to address CBRN concerns and improve security in Europe, notably through enhancing the capacity of partners, through mutual and effective collaboration. NATO and the EU should, when necessary, work to coordinate and resolve disputes over pertinent CBRN-related civil preparedness and crisis management activities. (NATO, 2022)
- NATO will continue to take steps to make collaborations more strategic, more cohesive, and more successful in bolstering the CBRN defence in order to fully utilize existing resources and reduce redundancy. NATO will give top priority to initiatives that strengthen interoperability, develop CBRN defence capabilities, hold joint training and exercise sessions, support security and defence-related reforms and improve civil preparedness and crisis management. (NATO, 2022)



- The EU and NATO's Parallel and Coordinated Exercises promote information sharing and increase the preparedness to address shared security threats, such as sophisticated hybrid attacks. To handle the present geopolitical and technical trends more effectively, however, the approach to exercises will need to change. Future training will place a strong emphasis on scenario-based discussions and the continued integration of military mobility. A key catalyst for improved EU-NATO collaboration and a means of fostering trust, enhancing interoperability, and strengthening that partnership would be a shift to joint and inclusive exercises. Sharing pertinent information is necessary for this. (A Strategic Compass for Security and Defence 2022)
- EU will further strengthen, deepen, and expand the strategic partnership, political dialogue, and cooperation with NATO across all agreed-upon areas of interaction starting in 2022, building upon the Joint Declarations, including new key work strands like resilience, emerging disruptive technologies, climate and defence, and outer space. (A Strategic Compass for Security and Defence 2022)

### ***EDTs***

- Utilizing the best scientific guidance currently available to NATO, the interconnected dangers, and opportunities that innovation and EDTs bring for CBRN defence will be appropriately identified and navigated by the Alliance. (NATO, 2022)
- NATO will continue to lead the world in a network of cooperative scientific knowledge on CBRN threats, defences, and countermeasures. This network will be spearheaded by the NATO Science and Technology Organization (STO). NATO will keep enhancing the coordination between its policy, planning, and scientific communities to make sure that the evaluations of CBRN threats and the creation of the necessary capabilities are both supported by innovative research. Additionally, NATO will work to deepen the relationships with key business associations, putting special emphasis on comprehending and addressing the hazards that arise when innovation and CBRN technologies collide. (NATO, 2022)
- NATO should offer a discussion forum for all EDT-related topics that directly affect the security of the Euro-Atlantic region. (NATO 2030: United for a New Era, 2020)
- Include EDTs in the defence planning process. (NATO 2030: United for a New Era, 2020)
- Incorporate AI into strategic and operational planning. (NATO 2030: United for a New Era, 2020)
- Improve technological and AI proficiency of the leadership and technical workforce. (NATO 2030: United for a New Era, 2020)
- Expand cooperation with the private sector, academia, and NGOs. (NATO 2030: United for a New Era, 2020)

***Operational / Tactical CBRN Capabilities***

- In order to meet the changing and rigorous strategic environment, NATO will keep enhancing and modifying the sustainability, deployability, and interoperability of its capabilities. (NATO, 2022)
- The Alliance will support the development of interoperable and mobile CBRN defence tools. (NATO, 2022)
- Specialized CBRN defence units offer supplemental capabilities that can be designed to assist combined operations in CBRN environments and to ensure operational success in particular mission types, such as combating WMD. (NATO, 2022)
- Military CBRN defence capabilities allow NATO troops to recover from a CBRN incident more quickly, to maintain successful operations, and to further aid in the recovery of impacted populations, territories, and forces. NATO will make sure the right people, tools, resources, and training are supporting these capabilities. (NATO, 2022)
- NATO might assist Allies in enhancing national capacities to thwart theft and illegal trafficking of CBRN materials, if necessary and upon request. (NATO, 2022)
- NATO will improve the national and collective defence and resilience against CBRN threats of all kinds and will have the military capabilities required to counter WMD proliferation, operate effectively, fight and prevail in every environment. (NATO, 2022)
- NATO's militaries are frequently requested to help with disaster relief and personnel must operate in increasingly severe weather circumstances. (Strategic Concept - NATO 2022)
- NATO will use robust, already-in-place, multi-domain, combat-ready soldiers, improved command and control systems, ammunition and equipment that has been prepositioned, and improved infrastructure and capacity to quickly bolster any Ally, including on short notice. (Strategic Concept - NATO 2022)
- The whole spectrum of forces, capabilities, plans, assets, and infrastructure required for deterrence and defence, including for high-intensity, multi-domain warfighting against nuclear-armed peer adversaries, will be delivered by each of the allies individually and collectively. (Strategic Concept - NATO 2022)

***Climate change***

- In future strategic documents, reaffirm the effects of climate change on the security environment.
- Include non-military threats such as climate change in NATO planning, exercises, and discussions.
- Use the Science for Peace and Security program to help with the development and implementation of advanced green technologies. (NATO 2030: United for a New Era, 2020)

### 3.1 NATO-EU cooperation

The following paragraphs will briefly look at NATO-EU cooperation more closely and summarize the most important political-level expectations/recommendations from the NATO 2030: United for a New Era report and the January 10th, 2023, Joint Declaration on EU-NATO Cooperation by the president of the European Council, the President of the European Commission, and the Secretary General of NATO. Even though the cooperation between the two organizations has been exponentially expanding, it looks like the mechanisms in place for cooperation do not always work as well as hoped. Furthermore, “following through on political decisions is lacking,” key initiatives are being stalled, and cooperation is being relegated to the staff level. Because of this, the NATO-EU relationship in 2030 should be “animated by a shared vision of transatlantic unity” in today’s evolving global security environment. Both NATO and the EU have “a lot to gain” if they manage to “reinvigorate” their relationship and expand the trust and understanding at the highest level. (Tardy, 2020; NATO 2030: United for a New Era, 2020)

The January 10th, 2023, Joint Declaration reaffirms the “shared vision” and shows that NATO and EU are determined to “reinvigorate their relationship”. This need for greater cooperation is partly because of today’s many challenges that the Euro-Atlantic area is facing. Examples, from the declaration, of such challenges are the authoritarian actors that are attempting to undermine the security of the region by utilizing hybrid techniques (political, economic, technological, and military) and assertive actors fighting for strategic supremacy. Moreover, it was mentioned that the instability in the surrounding regions is also putting the security of the Euro-Atlantic region in jeopardy because it could mean the creation of strategic competitors and could even mean the emergence of new terrorist organisations. Therefore, by signing that declaration EU and NATO should build up closer cooperation, which will serve as a cornerstone for the security of Europe and the Trans-Atlantic region. (Joint Declaration on EU-NATO Cooperation, 2023)

- NATO-EU cooperation should aim to eliminate potential duplications of efforts and capabilities. (NATO 2030: United for a New Era, 2020)
- A standing political liaison office should be set up to function as a link between the two organizations. (NATO 2030: United for a New Era, 2020)
- Strategic communications on issues of common concern should be coordinated. (NATO 2030: United for a New Era, 2020)
- NATO-EU should further strengthen cooperation in existing areas (geostrategic competition, resilience, protection of critical infrastructure, EDTs, space, climate change, information warfare). (Joint Declaration on EU-NATO Cooperation, 2023)

- Countries that are part from NATO and not in the EU and vice-versa should be encouraged to be involved as much as possible when it comes to consultation and cooperation. (Joint Declaration on EU-NATO Cooperation, 2023)
- NATO-EU cooperation progress should be assessed regularly. (Joint Declaration on EU-NATO Cooperation, 2023)
- NATO and the EU should mobilize the combined set of instruments at their disposal to pursue common objectives. (Joint Declaration on EU-NATO Cooperation, 2023)

More specifically, in regard to CBRN defence, there are many NATO and EU organisations/bodies/programs/formats that are contributing to the development of CBRN defence as well as multiple documents on the political level encompassing the NATO-EU cooperation. Some of those entities are the European Defence Agency (EDA), NATO's Science for Peace and Security (SPS) programme, the EU Permanent Structure Cooperation (PESCO), NATO's JCBRND-CDG, NATO Science and Technology (STO), HORIZON Europe and other EU projects & formats, like CERIS and the EU Risk Mitigation CoE Initiative. However, the communication between those entities could be improved in order to increase the coordination and cooperation on the geo-political, strategic, and tactical level to avoid possible duplications of effort, improve information sharing and possibly enhance the effectiveness of CBRN operations which could lead to a more robust CBRN defence development and will be beneficial for enhancing the security in neighbouring countries and areas. In particular, NATO's SPS and the EU CBRN Risk Mitigation CoE initiative should strive to cooperate with each other due to having similar projects in the same areas without close coordination. Likewise, the new "European external civil protection strategy aiming to strengthen preparedness, prevention, and response to disasters in the EU neighbourhood (North Africa-Sahel, Middle East, Balkans, Turkey and East-European partnership countries) including civil-military interactions, knowledge networks and on-site assistance" should cooperate with NATO JFC that is looking into the same areas. Furthermore, the cooperation between the EDA<sup>9</sup>, which is an intergovernmental platform for EU defence, and the STO<sup>10</sup>, which is a NATO subsidiary body that focuses on gathering knowledge for defence and security purposes, could be improved. To improve such communication a possible liaison element should be introduced between NATO and EU and perhaps a NATO – EU Policy and NATO-EU Concept should be established in the future.

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<sup>9</sup> The EDA supports defence initiatives, capability development, research and technology, industry engagement, training and exercise, EU policies and legislation, operations.

<sup>10</sup> The STO focuses on scientific research, technology development, transition, application and field testing, experimentation and more.

## 4 CBRN defence discussions

After conducting several meetings 11 with relevant personnel from the JCBRND-CDG, Supreme Headquarters Allied Powers Europe (SHAPE) Comprehensive Crisis and Operations Management Centre (CCOMC), HQ Supreme Allied Command Transformation (HQ SACT) – Nuclear Strategy and Policy and CBRN, Framework Nation Concept (FNC) CBRN Cluster Support Cell, and JCBRN Defence COE, common themes regarding CBRN defence in the future were identified and will be discussed in this section. Those common themes were extracted from the notes taken during the meetings by the author and will be briefly summarized. Only notes were taken instead of a transcript because the meetings were not recorded for privacy purposes. Moreover, it is important to mention that the results from the common theme analysis of the answers by the subjects do not represent their organizations' stance and are solely their individual private opinions. Furthermore, it should be taken into consideration that when analyzing the conversations by primarily utilizing the notes taken, errors could occur in the form of wrong interpretations. As many of the subjects have their own area of expertise within the CBRN realm it might be beneficial if in the future there would be an entity that focuses on dealing with varying CBRN issues. For example, it is not apparent where the responsibility lies when it comes to the effects of Climate Change on CBRN defence.

### ***Future Threat Actors***

One of the first questions asked during the meetings was concerning the CBRN threat actors and whether the focus will stay on today's "systemic rivalry" and the use of CBRN material by states and the terrorist threat will be secondary or vice versa. The common answer was that most likely there will be an equal focus on both terrorist and state threat actors, as NATO cannot undermine the alternative possible scenarios that could come from both threat actors. Moreover, some of the subjects mentioned a few differences between dealing with terrorist attacks and state attacks using CBRN material. Two of those differences are the larger quantity of materials required to deal with a state actor and the greater psychological effect of terrorist attacks.

### ***EDTs***

One of the questions inquired about the most impactful EDT on CBRN defence. The participants answered that due to the nature of EDTs, which tend to be unpredictable and move at an intensely fast pace, it would be difficult, if not impossible, to pinpoint the EDT that will have the most impact on CBRN defence. However, if they had to provide an assumption based on what is known right now, most suggest that biotechnology and artificial intelligence would have

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11 The questions that the conversations were resolving around can be found under Appendix E.

a bigger footprint than other EDTs due to the known and unknown potential factors of those fields and the benefits and risks they could bring. Other honorable mentions include energy, propulsion, and novel materials.

### ***Capabilities***

When asked which existing capabilities would need to be further developed in the future to match the evolving security environment, the common answer here concerns CBRN reconnaissance systems. Specifically, it was stressed that the further development of standoff, as opposed to on point, detection and monitoring is and will be of high importance in the near future. Moreover, it was mentioned that the use of EDTs could help expand the current CBRN reconnaissance capability. For instance, it was mentioned that the use of UAVs capable of surveillance, equipped with sensors for detection should become widely available across the Alliance.<sup>12</sup>

Furthermore, it was pointed out that NATO's COEs would need to lean to a more proactive approach rather than strictly adhering to the Programmes of Work<sup>13</sup>, especially when a crisis arises such as the recent Russian invasion of Ukraine. This could be done by introducing a fifth pillar, other than the four current pillars (Concept Development and Experimentation, Doctrine Development and Standardization, Education, and Training, Analysis and Lessons Learned). The JCBRN Defence COE contribution to NATO in response to the crisis proves that a fifth pillar will be of value.

### ***Civil-Military Cooperation***

Strengthening the idea of CBRN defence as a whole government approach was mentioned by almost all of the subjects. This means that public administrations, ministries, and public agencies should work more efficiently together on common CBRN issues. One issue in particular that was mentioned was the cooperation in international operations supporting civil society. When CBRN activities are conducted in a foreign country, the importance of discussion and planning before the operation with relevant national bodies of the host country is increased. This is because, if everything is to go as smoothly as possible, many elements need to be taken into account, such as the national law and even religion. If those elements are not considered, it would be difficult to support the civil realm in international CBRN defence related operations.

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<sup>12</sup> More information regarding the use of UAVs, specifically the use of drone swarms, could be found under Appendix B.

<sup>13</sup> A Programme Of Work (also referred to as POW) is a pre-agreed timing and sequence of events. In essence, it includes the overall planned activities to be implemented under an Agreement for a given year.

### ***Climate change***

When asked about the impact of climate change and its effects on CBRN defence, the participants referred to the current decontamination solutions and the possible complications of the decontamination substances when used in different weather conditions. Additionally, it was hinted that wet-based decontamination solutions might become increasingly difficult due to water scarcity in specific regions.

## **5 Requisite capabilities**

This section will present the necessary capabilities and deductions based on the previously mentioned political level expectations and the CBRN defence discussions with the relevant CBRN personnel.

### ***CBRN in NATO Command Structure, NATO Force Structure, Allies***

- ▶ The NATO CBRN Defence Policy describes the intent to have CBRN expertise at the appropriate level in NCS and NFS. In the event of an Article 5 operation, a Non-Article 5 Crisis and Response Operations (NA5CRO), or a Disaster Response Consequence Management support mission, cooperation with the host/supported nation is required. Cooperation is less effective if the supported nation lacks the appropriate level of CBRN expertise and personnel in its command structure.
- ▶ Cyber, hybrid, and cognitive warfare must be understood by both NATO and national CBRN subject matter experts (SMEs).
- ▶ Efficient mixture of centralized and decentralized CBRN SME in NCS and NFC

### ***CBRN Intelligence / Warning and Reporting / Knowledge management***

- ▶ CBRN-related intelligence, information, and analysis must be incorporated into all levels of Alliance civil and military decision-making, necessitating enhanced CBRN intelligence/analysis capability and effective intelligence/information sharing with allies.
- ▶ A CBRN knowledge base is necessary for NATO and EU encompassing civil and military CBRN information.
- ▶ Development and implementation of efficient CBRN lessons learned system.
- ▶ Establishing a CBRN Functional Area Service in order to provide decision makers with accurate CBRN information regarding friendly forces' CBRN capabilities and CBRN information on hostile capabilities and threat locations.

***CBRN Medical***

- ▶ Both interoperability of CBRN defence forces and medical support for CBRN operations will be improved in the future. Develop and expand the inter-disciplinary CBRN medical capabilities, which can also serve as a resource for military and civilian authorities.
- ▶ Military medical personnel should be capable of providing effective CBRN medical support or operational bio-response in the context of an all-hazards framework.

***ADN***

- ▶ In the future, the importance of countering WMD as a non-proliferation asset will increase.
- ▶ Regarding arms control efforts, NATO intends to serve as a forum for in-depth discussion and close consultations.

***Resilience/civil-military interaction***

- ▶ The CBRN relations of 7 baseline requirements for civil preparedness (7BLR)<sup>14</sup> necessitates appropriate CBRN military capabilities and shared understanding.
- ▶ Resilience at national and military levels is interdependent.

***Training***

- ▶ CBRN defence aspects are included in exercises including Major Joint Exercises.
- ▶ CBRN/WMD seminars should be held annually at NAC level to assure awareness on the political level.

***Outreach***

- ▶ With IOs and bilateral partners, information sharing, policy and standard exchanges, and joint training and exercises are envisioned. ADN will be strengthened in conjunction with the United Nations. Coordination and deconfliction of CBRN-related civil preparedness and crisis management activities have room for improvement. After scenario-based discussions, the EU has identified parallel and coordinated exercises as tools for information exchange.
- ▶ The EU is willing to open or expand areas of cooperation with NATO in the areas of resilience, EDTs, climate change, and outer space.

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<sup>14</sup> The 7BLR are 1- assured continuity of government and critical government services;2- resilient energy supplies; 3- ability to deal effectively with uncontrolled movement of people;4- resilient food and water resources; 5- ability to deal with mass casualties;6- resilient civil communications systems;7- resilient civil transportation systems. (Roepke & Thankey, 2019)



- Organisations, projects and formats under NATO and EU should be able to coordinate and cooperate better on the geo-political, strategic, operational, and tactical level.

### ***EDTs***

- To prevent adversaries from gaining a scientific/technological advantage, NATO will increase its partnership/cooperation with institutions/industry. CBRN Intel and technology monitoring are essential components of this objective.

### ***Operational / Tactical CBRN Capabilities***

- NATO should have CBRN forces with improved sustainability and deployability that can be tailored to specific mission types with little or no notice to move. To reach this aim, flexibility (being able to conduct tasks even if its structure is not tailored to the operation) and interoperability (W&R, C2 in tailored function) of CBRN defence forces is essential in the future.
- CBRN defence forces should operate in unfavorable weather conditions.
- Countering WMD tasks may need cooperation with Special Forces and illicit trafficking of CBRN materials requires cooperation with national and international law enforcement.
- CBRN defence capabilities must enable NATO forces to sustain effective operations.

## **6 Conclusion**

CBRN Defence in 2030 and beyond will most likely become increasingly complex as the global security environment is evolving and defending against CBRN incidents will require extra attention from NATO and its members countries. There are several identified reasons in this paper that contribute to the increase in complexity. One of those reasons is the erosion of non-proliferation agreements and the states' willingness to utilize CBRN material. This means that state actors are becoming just as likely as terrorists to use CBRN material. Another reason is the lowered barrier to the acquisition and use of CBRN material due to the emerging and disruptive technologies. Furthermore, climate change, pharmaceuticals, and novel ways of conducting war, including hybrid techniques, cyberattacks, and information warfare are all increasing the difficulty when it comes to CBRN defence. All these factors and pieces of information need to be taken into account by NATO and its role as a security guardian of the Euro-Atlantic region, and an appropriate response should follow on the political and military levels to better integrate CBRN defence into the Alliance and be better prepared to face the challenges of the future. However, before that, it is more important to improve consultation between NATO member countries on all security issues in order to enhance the cohesion of the Alliance and minimize the "internal strains."

Additionally, NATO Centres of Excellences need to be more flexible, and more adaptable. The 4 pillars of COEs although important areas, do not require immediate response to an event such as Russian aggression. For the benefit of the Alliance, increased responsiveness should be expected from COEs and instead of rigidly adhering to approved Programmes of Work, COEs should proactively seek opportunities to exploit their potential in a crisis. There is, perhaps, a need for a 5th pillar, which could be different from COE to COE. The JCBRN Defence COE is one of those entities that were able to react to the crisis, providing to its CBRN Reachback capability, and was able to produce an analysis in favor of Strategic Commands and Sponsoring Nations and Contributing Partners. In the future, CBRN Intel and Operation Planning Support might get higher priority.

The following points are proposals that could help reach the necessary capabilities. Under some of the points the reasoning behind the proposal point has been explained for further clarification. Moreover, there are multiple bullet points containing activities that the JCBRN Defence COE could potentially do to support the further development of CBRN defence in the Alliance. Several of those activities can be found in the Appendices under Appendix F.

#### ***CBRN defence in NCS, NFS, and NATO member countries***

► NATO should encourage and guide Allies to have proper CBRN expertise in their command structure and forces.

- Rationale: There should be a national counterpart to NATO CBRN subject matter experts (SMEs). Some NATO nations lack a strategic or operational CBRN directorate and individual staff members are embedded in distinct departments, but not at both levels.

Although the Capability Codes and Capability Statements (CC&CS) determine the required CBRN defence-related capabilities, Allied Command Operations (ACO) should issue non-binding guidelines regarding the CBRN staff personnel required at the national strategic, operational, and tactical levels.

► The re-establishment of NATO HQ WMD Centre might be considered in order to ensure that CBRN/WMD considerations are addressed at the political and strategic level. An annual NAC/WMD Seminar should be re-introduced, raising awareness of political/strategic stakeholders in NATO for CBRN Defence/WMD related issues.<sup>15</sup>

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<sup>15</sup> The JCBRN Defence COE could possibly support achieving those points. A “food for thought” paper including some of the ways in which the Centre could contribute can be found under Appendix F.

➤ In parallel, the information management and cooperation between separate CBRN officers at different branches of SHAPE might be analysed comparing with a possible/previous CBRN/WMD directorate.

- Rationale: A coordinating body is missing in the NATO structure dealing with different CBRN defence issues. As concluded from the discussions there is no CBRN body that investigates all CBRN problem areas.

➤ Similar to NATO COMEDS, the Committee of CBRN Defence Chiefs in NATO (CO-CBRND- CS) should be set up as the senior committee for CBRN defence within the Alliance.

- Rationale: The CO-CBRND-CS should act as the central point for the development and coordination of CBRN defence matters and for providing CBRN defence related advice to the NATO Military Committee and the Committee on Proliferation (CP).

➤ Standardization of CBRN personnel knowledge requirements as it refers to cyber, hybrid, and cognitive warfare is required through easily accessible courses for broader audiences such as Advanced Distributed Learning (ADL). 15

- Rationale: Cyber, hybrid and cognitive warfare has rising relevance and NATO's CBRN defence has to meet and respond to this threat. Knowledge standardisation facilitates alliance collaboration and interoperability among members of multinational organisations.

### ***CBRN Intelligence / Warning and Reporting / Knowledge Management***

➤ Although the Allies are working to enhance CBRN-related intel capabilities/analysis, the NCS and NFS and NATO supporting organizations should increase these capabilities as well. 15

- Rationale: The NATO Intelligence Fusion Center lacks CBRN intel expertise. Moreover, the recent Russian actions demonstrated the necessity for CBRN intelligence. Nations and the Alliance have a strong interest in the Horizon Scanning of each nation. In addition, intelligence on nuclear facilities, illegal trafficking activities, and even technology watch may play a significant part in the creation of a clear and comprehensive situational awareness picture.

➤ For information sharing of CBRN-related data, there should be a common platform, which can be either the NATO Communication and Intelligence Agency, the NATO Intelligence Fusion Centre,

or even the JCBRN Defence COE, as it already has a Reachback Intelligence officer as part of NATO's CBRN Reachback capability.

- Rationale: The JCBRN Defence COE is currently engaged in a project with the objective of establishing a CBRN Knowledge Base for NATO and partner organisations. Typically, a knowledge base serves as a passive component or repository for data, which is important for planning and preparation reasons. For rapid information sharing in the event of an incident, a feature for active information exchange must be designed.

➤ The JCBRN Defence COE should keep up the intense work set up by the CBRN Lessons Learned Community of Interest, supported by the previously proposed CO-CBRN-CS that, based on the comparison of the effectiveness of medical and CBRN LL systems, would be a key element of this process.

### ***CBRN Medical***

➤ CBRN medical capability will be extremely useful in the future, given the increased survivability after CBRN decontamination of injured personnel and the new, unusual pandemics caused by climate change or migration in the Euro-Atlantic region.

➤ Include traumatic injuries in CBRN Medical planning. (McDaniel & McIsaac, 2022)

- Rationale: CBRN events frequently occur in conjunction with traumatic injuries, but the vast majority of CBRN literature and research frequently excludes the trauma perspective. CBRN events do not typically occur in isolation, necessitating that CBRN management be approached through the lens of trauma. (McDaniel & McIsaac, 2022)

➤ Due to the COVID-19 pandemic as well as to the changed security environment the cooperation between medical CBRN protection and intelligence and the CBRN defence side of the medal should be increased. <sup>15</sup>

### ***ADN***

➤ NATO's arms control effort (a platform for technical and political consultation) will be successful if partnership and trust building are extended to regional multinational organizations.

- Rationale: Arms control consultation with the surrounding region could be considered equal if not more important than internal consultation within NATO as regional entities arms control efforts could impact the Alliance as well.

### **Resilience/civil-military interaction**

- NATO Allies should encourage cooperation among the national Industrial Security Agency and CBRN experts to increase the resilience of critical infrastructure.
- CBRN support for dealing with mass casualties, disruptive health crises, or other supporting tasks can be managed by common, advance response planning and common training, therefore, NATO forces and/or neighboring countries should participate in related national exercises.
  - Rationale: In the event that a nation's capabilities are insufficient or have been depleted, these capabilities might be bolstered by neighbouring nations or the Alliance. Without prior preparation, training, and agreements, difficulties may arise with this cooperation.
- Procedures and interoperability of CBRN defence capabilities for cross-border mitigation of CBRN events should be established and trained.

### **Training**

- Critical non-CBRN defence specialized capabilities should be validated under realistic conditions, such as a major Joint Exercise.
  - Rationale: The validation standards for CBRN defence should be amended in accordance with the CC&CS.
- Implement regular CBRN/WMD seminars on NAC level. - Rationale: The awareness on political level has to be assured.
- Civil-military scenario-based training, including cross border scenario, to enhance resilience of society of member states.
- Training of CBRN defence forces should consist of extreme weather conditions that require both quick and flexible planning and cooperation between Allies. <sup>15</sup>
  - Rationale: Extreme cold and extreme heat provide difficulties for CBRN defence specialised units; hence preparedness is necessary for them to carry out their duties in adverse weather conditions. Allies can help one another by supplying training facilities, such as Scandinavian nations for cold-weather training or South European countries for training in severe heat.
- Improved common training of CBRN assets with all forces including the Special Forces and law enforcement is necessary both at the national and NATO levels.

- ▶ Improved common training of CBRN assets with Medical capabilities is necessary both at the national and NATO levels.
- ▶ Mission-critical NATO forces have to be trained to be able to continue the operation in a CBRN environment.
- Rationale: Not only CBRN-specialized units must be able to function in a CBRN-contaminated environment. If mission-critical units are unable to function in a CBRN environment, the operational tempo may slacken, which might threaten the success of a whole operation. This is considerably more essential for the defence.

### ***Outreach***

- ▶ Parallel or coordinated NATO-EU exercises based on a commonly agreed scenario, including CBRN events would increase trust building, information sharing, and NATO's, EU's and National Resilience as well as civil preparedness.
- ▶ Introduce a liaison element to improve coordination and information sharing on the geo-political, strategic, operational, and tactical level between different NATO and EU organisations / projects / formats.
- ▶ Establish policy, processes, and formats to enhance NATO-EU cooperation throughout all levels, increasing interoperability, avoiding duplication of efforts, tackle identified common areas of interest in a comprehensive approach.
- Rationale: Many entities under both NATO and EU are conducting similar projects in the same areas without coordinating between each other which in turn could create duplication of efforts. Because of this, if the cooperation is enhanced by establishing certain policies and processes it could yield many benefits for the Alliance.

### ***EDTs***

- ▶ NATO, EU and allied nations should become more vigilant when it comes to small but capable, emerging Research & Development entities. 15
- Rationale: The most likely origins of EDT development are enormous institutions/facilities, yet amazing ideas/products may originate from unknown entities. With expanded technological surveillance, the Alliance might provide these stakeholders with a twofold benefit: development could be accelerated, and enemies would be unable to influence them.

***Operational / Tactical CBRN Capabilities***

➤ Nations should develop highly deployable and interoperable CBRN defence forces that are able to face both full-scale multi-domain conflict as well as special CBRN defence tasks. This requires both conventional and widely developed special CBRN capabilities, like CBRN MERT.

- Rationale: The deployability of troops in case of an incident is essential to respond appropriately. If the future troops are not able to be deployed quickly, this late response could have grave consequences. Moreover, as both allies and enemies have a strong interest in technological advancement, CBRN defence duties and CBRN defence units will become increasingly specialised in the future; hence, interoperability will be of increasing relevance.

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## APPENDICES

### Appendix A

#### CBRN Potential Attacks by Non-state Actors Chart

The following two charts (Figure 8 and 9) have been derived from a study called “Possible Impacts of Potential Adversary Non-State Actors on NATO’s CBRN Defence”. The study concludes that in 2030 and beyond non-state actors such as terrorist organisations would have an increased access to CBRN material and delivery options, therefore, NATO, and its members should become more resilient and be prepared to face a CBRN incident and recover from it. The charts have been created by the author of the study and reflect his own personal opinion after conducting his research. The first chart (See Figure 8) puts a number of potential CBRN weapon attacks that could occur until 2030 and uses a five-point scale (1 for low and 5 for high) for Probability and Impact to map the potential attacks. The second chart (See Figure 9) puts a

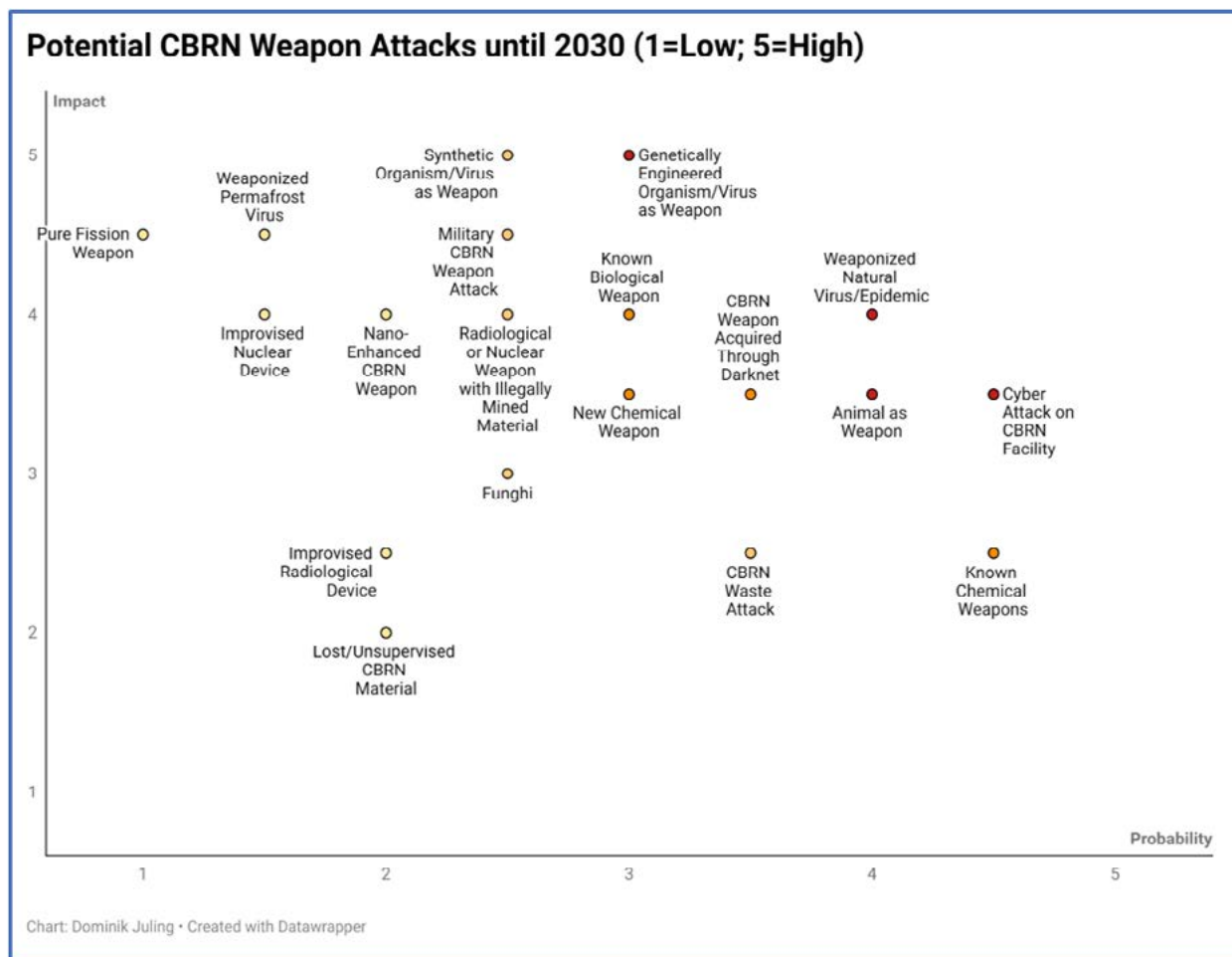


Figure 8 Potential CBRN Weapon Attacks until 2030 | Source: (Juling, 2021)

number of potential means of delivery until 2030 and utilises the same scale as the previous chart but instead of Impact, the Y axis is called “Danger and Unpredictability”. (Juling, 2021)

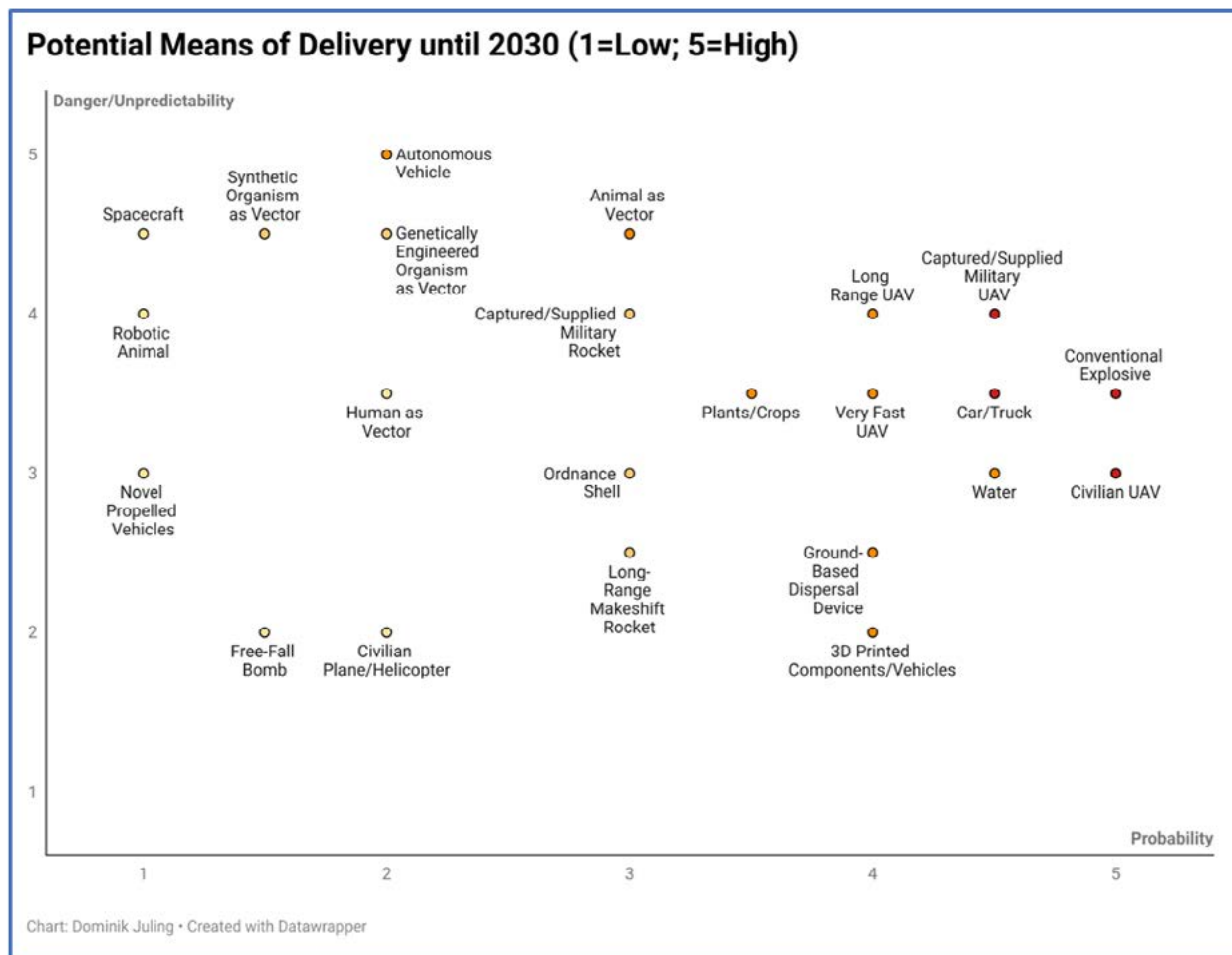


Figure 9 Potential Means of Delivery until 2030 | Source: (Juling, 2021)

## Appendix B

### Drone Swarming Capability

In the main body specific EDTs, UAVs in particular, are presented as a threat multiplier. However, the following potential drone swarm capability is an example of how EDTs can be seen through a different paradigm. Instead of seeing EDTs as threat multipliers they could also serve as opportunities to enhance CBRN defence.

A drone swarm (see Figure 10) “consist of multiple unmanned platforms and/or weapons deployed to accomplish a shared objective, the platforms and/or weapons autonomously altering their behavior based on communication with one another.” (Kallenborn & Bleek, 2019) Those drone swarms have high applicability to CBRN Defence and Offence. However, as they can be utilized to mitigate CBRN threats this section will focus on improving the defensive CBRN capabilities and will not

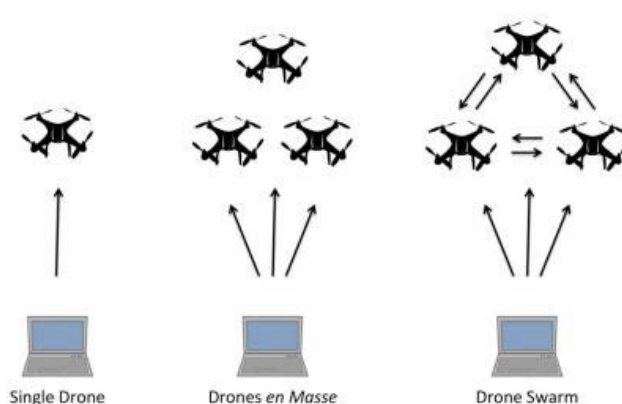


Figure 10 Source: (Kallenborn & Bleek, 2019)

discuss the potential offensive usability. There are a couple of ways in which drone swarms could expand CBRN defence. In order to stop or hinder the successful use of CBRN weapons, drone swarms can be deployed as a countermeasure. The utilization of drone swarms as platforms for **1. standoff detection**, which involves looking for CBRN signatures at a distance, could be possible. They could also be used to **2. disable or stop CBRN delivery systems**. Additionally, networked drones could **3. aid in managing the effects and fallout of CBRN use** in the case of a successful attack. These tools help the defender in CBRN competition by decreasing the possibility of a successful attack. It becomes more challenging for adversaries to successfully use CBRN weapons when CBRN delivery systems are defeated, and standoff detection is present. (Lehto et al., 2021; Burkle et al., 2011; Martellucci et al., 2021; Kallenborn & Bleek, 2019; Kopeikin et al., 2019) Main examples have been taken from the work of Zachary Kallenborn et. al. due to his expertise in drone swarms, WMDs, terrorism, future analysis and risk assessment. His work in regard to drone swarms has been published in the peer-reviewed journal “The Nonproliferation Review” which examines the causes, consequences, and control of the spread of nuclear, chemical, and biological weapons.

1. Drones offer advantages for CBRN detection in general and swarming drones significantly improve this capability. CBRN standoff detectors identify CBRN material signatures from a distance. Early detection of CBRN material may thwart the general transfer of CBRN material, prevent an imminent CBRN attack, expedite the medical response to mitigate damage or assist in identifying the source and reducing the impact of an attack. At entry points, CBRN detectors may be deployed to identify materials or weapons crossing national borders. Alternatively, they could be deployed within or outside of cities to identify potential CBRN use. For instance, the US BioWatch program deployed biological agent detectors in more than thirty- one cities. Environmental factors, detector placement and spacing, and pathogen properties all influence the probability of successful and false detection. Due to the size and human requirements of some CBRN detection techniques, it is not an easy task to integrate such features into mobile detectors. However, drones in the air or on the ground could potentially serve as platforms for mobile detectors. (Kallenborn & Bleek, 2019)

Due to the likelihood that detector drones would primarily operate in urban or otherwise crowded environments, drones would need to be small, thereby limiting the size of detectors. The Department of Homeland Security (DHS) of the United States is reportedly testing small drones equipped with sensors for detecting chemical or radiological incidents. Due to inaccessible terrain, ground-based drones may be less deployable, despite the fact that payload concerns are unlikely to be significant. Ground-based drones could serve as carriers for airborne detection drones, providing transportation, limited hazard detection (such as checking for open space), and recharging capabilities. The precise operation of the detector drones and the viability of different approaches are highly dependent on the type of CBRN material being sought due to operational differences between the detectors. Communication within the swarm enables sophisticated search patterns. During high-traffic periods, control algorithms could prioritize flights over specific regions. For example, drones could be programmed to fly over the Key Bridge in Washington, DC, during the evening commute, a particularly congested roadway that non-state actors may view as a desirable CBRN target. Similarly, swarms could be programmed to alter their routes frequently to reduce the likelihood of adversaries anticipating and evading detection. (Kallenborn & Bleek, 2019)

Additionally, intra-swarm communication may help reduce false positives. If a drone identifies a potential CBRN agent, it could request a secondary inspection. The swarm may reroute another drone to the area, or backup drones may be activated and deployed. If the second drone is unable to confirm the positive detection, the drones may return to their original course. If the second drone confirms the positive detection, it may relay the information to human emergency responders. In urban areas, CBRN-sensing drones could be integrated into "security swarms" that provide defenses against multiple threats. (Kallenborn & Bleek, 2019)

2. Drone swarms could be used to prevent CBRN-armed aircraft from taking off, interfere with missile launches, search for, and potentially track submarines, and target command and control systems. Bombers armed with CBRN payload could be attacked by swarms of drones. Drone swarms could attack an aircraft either as it is taking off or while it is still on the ground, or they could simply fly above an airfield to create collision risks. States could position drone swarms near airfields to prevent the launch of nuclear forces faster than they could with conventional bombs or special operations forces. To prevent premature discovery, the swarm would need to be camouflaged or disguised in some way. (Kallenborn & Bleek, 2019)

Likewise, drone swarms may impede the successful delivery of CBRN-armed missiles. Given sufficient warning, a large number of drones could potentially position themselves in the path of an incoming missile. The missile would strike the drones rather than the target, mitigating or eliminating the damage caused by an attack. Such an approach would be similar to conventional missile defences that spray particles into the air, except that a swarm of drones could easily move into the path of an incoming missile or form layers to protect against follow-up attacks. As the drones create a physical barrier against incoming missiles, it is plausible that they could be effective even against hypersonic missiles. Alternately, and considerably more difficultly, drone swarms could be prepositioned close to missile silos in order to strike swiftly. Swarms could fly above silos and collide with or detonate explosives near missiles during their boost phase to disable or deflect them. Even if the damage is easily repairable, it may delay a retaliatory attack, allowing for the deployment and use of forces. (Kallenborn & Bleek, 2019)

Alternately, swarms could function as platforms for sophisticated missile defences. For instance, the Missile Defence Agency requested tens of millions of dollars for a program involving lasers mounted on drones. Drone swarms could be utilized as a countermeasure against mobile transporter-erector launchers (TELs), which are mobile vehicles that can transport and launch missiles. The mobility of TELs enables them to relocate from previously identified positions, necessitating a significant investment of time and resources to track and counter them. According to William F. Bell, "extensive denial and deception planning appears fundamental to all threat missile force doctrines... Our adversaries have seen how difficult it has been for the United States to find and kill mobile targets in recent conflicts; therefore, missile mobility is crucial."(Bell, 2014) Drone swarms could be particularly useful in the search for TELs due to their wide-area search capability and low cost, especially because the cost of losing a few drones within the swarm is negligible compared to the loss of a manned aircraft. In addition, the unique shape of TELs may make them particularly suited to automated image recognition, as there will be fewer false positives. Once a TEL has been identified, swarms may either relay the TEL's location to other strike forces or employ attack drones to eliminate the TEL. (Kallenborn & Bleek, 2019)

Mixed swarms of submerged, surface, and aerial drones could be used as advanced anti-submarine platforms to detect and/or destroy nuclear-armed ballistic or cruise missile-carrying submarines. The United States military is already pursuing autonomous anti-submarine capabilities. Defence Advanced Research Projects Agency (DARPA) is currently developing an Anti-Submarine Warfare Continuous Trail Unmanned Vehicle for surface surveillance of diesel-electric submarines. Autonomous communication between unmanned surface, subsurface, and aerial vehicles would enable much larger networks, expanding the scope of surveillance and facilitating the transmission of attack information. There could be a mixture of mobile (equipped on the drone) and static (distributed by the drone) sensors within this network. Submarine bases could also be attacked by drone swarms. An attack of this nature could seek to destroy a nuclear-armed submarine in port or disable port operations to impede resupply or maintenance. This would be especially important for states with a limited number of subbases. For instance, the United Kingdom has only one nuclear submarine base: Her Majesty's Naval Base, Clyde. The sea-based deterrent of the United Kingdom could be significantly weakened or even rendered inoperable by a massive drone swarm attack on the base. (Kallenborn & Bleek, 2019)

Drone swarms could also be used to combat CBRN-armed drone swarms. In some ways, drone swarms are effective countermeasures to drone swarms due to their low cost and ability to strike multiple targets simultaneously. DARPA and the US Naval Postgraduate School are investigating swarm versus swarm combat to develop new operational and tactical concepts. In addition to targeting delivery systems, drone swarms could also target CBRN command and control systems via direct strikes on facilities and personnel or electronic or cyber-warfare attacks on facility communication and computer systems. Drone swarms could be used to attack fixed command-and-control systems or mobile platforms, such as the E-6B Mercury of the United States. Or drone swarms could be used to conduct targeted strikes against personnel involved with CBRN systems, such as the nuclear command authority of a state. Drone swarms could also serve as platforms for cyber or electronic warfare payloads to thwart the delivery of CBRN launch orders. Such a drone swarm must also ensure that its offensive activities do not hinder the swarm. For all of these applications, the primary benefit of drone swarms is their broad area coverage: jammer-equipped swarms could spread widely over a command-and-control facility; armed swarms could simultaneously strike multiple targets, saturating a base's defences; and drones could spread out to search for possible personnel targets, while sensing drones monitor for potential threats to the swarm. (Kallenborn & Bleek, 2019)

**3.** The immediate and long-term responses to a CBRN attack have a significant impact on the impact of the attack. This is most evident in the case of biological weapons, where rapid deployment of medical countermeasures that can mitigate or even negate the attack's effects is made possible by early detection of an attack. Important roles are also played by consequence management in mitigating chemical, radiological, and nuclear effects. Depending on the type and purity

of the agent and the environment in which it is used, a successful CBRN attack can leave behind hazardous substances that can persist for days to years. An experimental study of VX persistence revealed, for instance, that the chemical had a half-life of seventy-two hours when applied to grass foliage. Concerning radiological agents such as cobalt-60 and strontium-90, their radioactive half-lives are 5,3 and 29 years, respectively. Weapons employing these agents pose an ongoing threat to human life, preventing or impeding access to or use of affected equipment. (Kallenborn & Bleek, 2019)

Attempting to remove the material may also result in significant harm to responders. The efficacy of decontamination methods will influence the overall impact of a successful CBRN attack on the defender, particularly for radiological weapons that rely on long-term damage to cause harm. Single drones, drone swarms, and drone swarms are all capable of decontaminating after a CBRN attack, with drone swarms being the most effective. Moreover, drones could reduce human exposure risks, provide better information on injured people, assess the "parameters of the incident" (identify source, incident size, and plume activity), deploy rapidly, and be reasonably priced. In general, drones can be utilized for material cleanup and decontamination by enhancing situational awareness. CBRN-contaminated material can be decontaminated by drones. Robots with CBRN decontamination capabilities could easily disperse across CBRN-affected regions. As drones, unlike humans, are unlikely to be harmed by the CBRN material itself, they would not require protective gear that restricts their mobility. As a result, friendly soldiers would not be placed in a vulnerable position, which may be especially advantageous in times of war. Drones and drone swarms are also likely to be useful for assessing the dispersion of materials. (Kallenborn & Bleek, 2019)

Drones equipped with cameras and other sensors can provide real-time video and thermal imaging to aid in the deployment of resources, the identification of threats, and the development of a shared situational understanding. In the event of a CBRN disaster or successful application on the battlefield, this information would be particularly useful for determining the need for CBRN medical countermeasures based on improved assessments of the number of people injured and the extent of restrictions on friendly military mobility. Initial mathematical modeling has demonstrated the mass surveillance potential of drones in detecting the perimeter of oil spills, a problem of a similar nature. However, as the authors note, the drones "must be able to detect and track pollutants that can primarily change and move over time due to advection and diffusion." The dynamics of detecting and tracking CBRN pollutants, as opposed to oil spills, are distinct and will depend greatly on the type of CBRN agent and the location and method of release. In the event of widespread or catastrophic CBRN use, the affected area is likely to evolve and expand quickly. Drone swarms, as opposed to single drones, will likely be better equipped to handle the situation because they will be able to react more autonomously and swiftly. (Kallenborn & Bleek, 2019)

## Appendix C

### Cyber-attacks at Nuclear Facilities

The table below (Figure 11) shows sixteen documented cyber-attacks on nuclear facilities in different countries in a chronological order (from 1990 to 2016). All of those incidents are publicly disclosed, meaning that there might be incidents that have not been publicly disclosed and/or are classified/unavailable. For more information regarding the details of the incidents, see the “Outpacing Cyber Threats” report published by the Nuclear Threat Initiative. (NTI, 2016; Van Dine, Assante & Stoutland, 2016)

#	MONTH/YEAR	NAME	COUNTRY	DESCRIPTION	CATEGORY
1	February 1992	Ignalina Nuclear Power Plant	Lithuania	Employee attempted sabotage	Intentional
2	June 1999	Bradwell Nuclear Power Plant	United Kingdom	Employee altered/destroyed data	Intentional
3	March, 2002	Davis-Besse Nuclear Power Station	United States	Worm	Intentional
4	June 2005	Japanese Nuclear Power Plants	Japan	Data release	Unknown
5	December 2006	Syrian Nuclear Program	Syria	Espionage	Intentional
6	March 2009	Energy Future Holdings	United States	Employee attempted sabotage	Intentional
7	June 2010	Natanz Nuclear Facility	Iran	Stuxnet virus used to destroy centrifuges	Intentional
8	April 2011	Oak Ridge National Laboratory	United States	Data theft via spear-phishing	Intentional
9	October 2011*	Natanz Nuclear Facility	Iran	Duqu virus used to conduct espionage	Intentional
10	May 2012	Natanz Nuclear Facility	Iran	Flame virus used to conduct espionage	Intentional
11	January 2014	Monju Nuclear Power Plant	Japan	Data release	Unknown
12	December 2014	Korea Hydro and Nuclear Power Company	South Korea	Data theft and release	Intentional
13	February 2015	Japanese nuclear material control center	Japan	Nuclear facility used as relay point in cyberattack	Unknown
14	February 2016*	Nuclear Regulatory Commission/U.S. Department of Energy	United States	An employee attempted to infect government computers with viruses distributed via spear-phishing emails	Intentional
15	April 2016	Gundremmingen Nuclear Power Plant	Germany	Two viruses entered the plant's fuel rod monitoring system	Unknown
16	June 2016	University of Toyama, Hydrogen Isotope Research Center	Japan	Data theft via spear-phishing	Intentional

Figure 11 Chronological order of cyber-attacks on nuclear facilities between 1990 and 2016 | Source: (Van Dine, Assante & Stoutland, 2016)



## Appendix D

### Recommendations for NATO regarding PBAs

The following recommendations regarding pharmaceutical based agents are proposed for NATO to consider. They have been taken directly from the JCBRN Defence COE extensive study of PBAs. (JCBRN Defence COE, 2021) There is a lot of valuable information regarding PBAs in that research paper that was not elaborated on in this document. Therefore, for more information about specifics in regard to PBAs turn to the study.

- ▶ “Providing collective support to the OPCW proposal on CNS acting chemicals submitted in Sep 2019 that awaits ratification by the OPCW Executive Council. “(JCBRN Defence COE, 2021)
- ▶ “Harmonising the terminology of CNS acting chemicals (PBAs) with OPCW definitions. “(JCBRN Defence COE, 2021)
- ▶ “Declaring that toxic chemicals within the alliance are limited to recognised RCS compounds and only for the use of for law enforcement. “(JCBRN Defence COE, 2021)
- ▶ “Supporting mechanisms to enhance transparent reporting and development of toxic chemicals utilised in law enforcement. “(JCBRN Defence COE, 2021)
- ▶ “Enhancing forensic reporting pathways and associated training to preserve the integrity of sites that may have been subjected to CNS-acting chemicals. “(JCBRN Defence COE, 2021)
- ▶ “Development of plans to counteract the use, or the threat of use of CNS-acting chemicals by a state or non-state actor. “(JCBRN Defence COE, 2021)
- ▶ “Monitoring developments in science and technology related to CNS-acting chemicals, their associated means of delivery and focus on any attempts to exploit for weaponization.” (JCBRN Defence COE, 2021)

## Appendix E

### Interview/ Discussion Questions

Below are the questions that were central to the discussions with the CBRN personnel.

Framework Interview Questions
Based on the old and new CBRN Defence Policy, there is a slight shift from the focus on terrorism to states being considered the main threat actor when it comes to the use of CBRN Material. In the future would the shift revert to terrorism or state actors will continue to pose as the current urgent challenge?
In your opinion, which CBRN defence capability has to be upgraded or developed first, as an answer to the changing global security environment? What else could be upgraded or developed?
Which EDT you would say will have the biggest impact on NATO and on NATO's CBRN defence and why? Is cybersecurity going to be a major component of CBRN Defence capabilities in 2030 and beyond? (critical infrastructure vulnerability)
Is there a sufficient level of preparedness (capability) when it comes to defending against UAV attacks with CBRN payload? Are we going to see more UAV attacks in the future and hence develop more capabilities to counter them?
Does climate change influence certain CBRN capabilities? If so, what should be done to counter the effects? Should pandemics and natural disasters be incorporated into training?
Should all levels in the military go through a certain degree of CBRN training to be better equipped to tackle the future CBRN challenges? (basic/enhanced/specialized CBRN capability)
Is there a medical capability that is highly desired in the future?
What are the most important organizations when it comes to CBRN capability development? How exactly are they contributing to that development?
NATO COEs operate under the 4 pillars. (Concept Development & Experimentation, Doctrine development and standardization, education, and training, Lessons Learned.) In your opinion, do COEs need to shift the focus from these pillars to a proactive effort for an instant benefit to the Alliance (such as ops support, intel, outreach, etc.?)
Is there anything you would like to elaborate on further or add something that you think will be of importance in CBRN Defence in 2030 and beyond?

## Appendix F

### JCBRN Defence COE Possible Contribution

As the JCBRN Defence COE is a center specifically designated to provide CBRN expertise there are many areas in which the Centre could contribute to the CBRN defence vision of NATO and support the Alliance to its maximum possible extent in the near future. Finding out all the ways in which the JCBRN Defence COE could support is not the primary aim of this study and in the following paragraphs a couple of areas where the Centre could potentially contribute will be outlined. Therefore, for the future this information can serve as a “food for thought” that could be used to create a separate paper addressing the possible contribution of the Centre detailing the feasibility of those ideas and explaining new areas.

#### 1. Expanding/increasing cooperation

One of the ways in which the JCBRN Defence COE could contribute to the development of NATO’s CBRN defence is by expanding its network and cooperation with other NATO supporting entities such as other COEs and NATO HQs on common issues connected to CBRN defence. For instance, the JCBRN Defence COE could focus on cooperation with the Cold Weather Operations COE (CWO COE) to help look into the challenges created by extreme weather conditions created by climate change (such as decontamination in extreme cold) and enhance the training of CBRN forces to facilitate preparedness in case of extreme weather conditions such as extreme cold. Another example would be to cooperate with the MILMED COE with the aim of advancing the Medical CBRN realm. Moreover, the JCBRN Defence COE could also consider cooperating with intel entities such as NATO’s Intelligence Fusion Center (NIFC) to further develop the CBRN knowledge management, intel capabilities, analysis and discuss the creation of a future CBRN-specific knowledgebase and functional service.

#### 2. Revision/addition of courses

The second way in which the JCBRN Defence COE could contribute concerns courses. Several aspects of the Centre’s activities connected with courses could be tweaked and improved to meet the security challenges of today and the future of 2030 and beyond. Some of those aspects are – analyzing the involvement of the civilian side of the coin in courses; new ways of advertising the courses to NATO nations that are not contributing nations; creating new needed courses based on operational needs and requirements; expanding already offered courses; increasing the capacity of the Centre’s courses to meet new possible demand; and have the flexibility to adjust courses and focus depending on the situation. Civil- military cooperation as found out in the paper would be of utmost importance for future operations, hence the civilian community should be involved in CBRN courses and a variety of workshops could be conducted to increase the synergy of civilian and military personnel which will increase cooperation and operational

efficiency in case of a CBRN incident. All of the courses would need to be advertised across all NATO nations, in order to reach more of NATO, which means that the Centre could examine novel ways of advertising the courses outwards (outreach). Considering what is happening in Ukraine and the conclusions from the 2022 CBRN Defence Policy, new courses might be considered to be added or old courses expanded to meet the increasing demand of the future and better integrate CBRN defence in NATO. With this in mind, the capacity of the Centre might need to be increased to facilitate the expansion of the courses such as the number of participants. The exact capacity upgrades should be analyzed based on what is needed, whether it is resources or manpower. Additionally, if in the future there is a lack of capacity, the Centre should be as flexible as possible and adjust priorities when it comes to courses, meaning that certain courses could even be omitted in favor of much-needed courses that are of high relevance and demand. Those potentially high-relevant and high-demand courses would benefit more from the increase of resources at the expense of a course that has not been receiving demand or is less effective, based on the COE's evaluation. Furthermore, in order to spread CBRN knowledge from courses more effectively throughout NATO, the COE should analyze the idea of training trainers. Training trainers should be analyzed thoroughly considering that the Centre trains approximately ~140 (this number will increase in the near future) individuals per year. This will make sure that the information gathered from the courses is not going only for the individual trainees' benefit but will be further relayed back to the nations, which will in turn increase the willingness and provide adequate justification of nations to send their officers. Hence, not only the Centre and the nations will benefit but also the whole of NATO, as NATO's vision to better integrate CBRN defence into the Alliance will be one step closer.

## 2.1 ADL Courses

In regard to the creation of courses, for instance, when it comes to ADL courses the Centre could look into supporting the redevelopment of the only existing CBRN ADL course on the Joint Advanced Distributed Learning (JADL) and creating own advanced CBRN ADL course. Currently, there is a single CBRN ADL course on the JADL platform created by NATO School Oberammergau (NSO) and it is outdated and has missing information, for example, on the 2022 CBRN Defence Policy and recent important CBRN events such as the current trend of utilizing fourth-generation agents for assassinations. The JCBRN Defence COE should offer the NSO to analyze the currently provided ADL course and pin-point areas of improvement which the NSO could redevelop. The Centre could also look into the creation of its own CBRN ADL courses, one with an orientational purpose and one with a standardization purpose. A basic modern orientational (or introductory) ADL course could be created and updated on a regular basis to increase the awareness of NATO officers when it comes to CBRN defence and provide a widely available course that could be access any-time and anywhere. This course should not only include basic CBRN information but also information on NATO activities and the respective CBRN components that are part of those activities.

The other type of ADL course that could be created by the Centre would be a more advanced ADL course with the aim of standardizing the knowledge of CBRN SMEs. This course could include cyber, hybrid and cognitive warfare and the CBRN relation to it. Those two types of ADL courses are not to be a replacement for on-site courses but should serve as a tool to reach broader audience and in the case of the orientation course to reach as many NATO officers and the in the case of the advanced course to standardize the knowledge of NATO's SMEs. For CBRN experts though, ADL courses would not be sufficient and effective enough, necessitating on site courses similar to the courses<sup>16</sup> currently offered by the JCBRN Defence COE. For example, a special civil-military course, similar to the CBRN Consequence Management course hosted by the Centre, could be created in order to support civil-military projects, and enhance outreach activities. Nonetheless, an advanced pre-requisite ADL course would be beneficial to CBRN specialists as they would gain valuable information and be more prepared for an on-site course. Furthermore, feedback that is acquired from the support to the Joint Warfare Center (JWC) and Major Joint Exercises (MJE) should be reflected on the activities of the JCBRN Defence COE, such as courses and vice versa the feedback from the courses should be reflected back to the support activities.

### 3. CBRN Intel on small industrial facilities

Third way in which the JCBRN Defence COE could contribute is by conducting CBRN Intel when it comes to small but capable Research and Development entities, monitor them to increase awareness of new and developing technologies that could potentially become emerging and disruptive in the CBRN realm. This is especially important in the current "Fourth Industrial Revolution" era we are in, which fosters an increase in innovation by both big and small industries. Furthermore, the relationship between the military and the industry could be analyzed in order to provide insights on a possible link between the two for mutual benefit.

### 4. Status of the COE

Lastly, the possibility, benefits, and drawbacks of transforming the JCBRN Defence COE or part of it to NCS in the future should be thoroughly analyzed. As discussed in the main body of the paper, the global security environment has evolved and there are many different threats that could insinuate a CBRN incident. One of the main changes is the increased tendency of nations to use CBRN material which, as mentioned in one of the discussions in chapter 4, a CBRN attack by a state requires significantly more resources and attention, hence it requires adequate and timely response. Understanding this in the wake of the Russian invasion of Ukraine is especially important. Therefore, the NATO Command Structure would need to adapt to this new paradigm and evolve to be able to tackle the security challenges of today in regard to CBRN defence.

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<sup>16</sup> Information about the courses offered could be found on the Centre's official website - <https://www.jcbrncoe.org/>.

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## NATO COEs support to NATO in case of crisis

### Zdeněk Hýbl<sup>1</sup>

### Introduction

NATO has invoked Article 5 of the Washington Treaty<sup>2</sup> only once in its more than seventy years old history. We know how the system works and what it means, and it seems that all aspects are covered and well-mapped. Or is it? While there are perhaps several aspects regarding Article 5 that require further discussion, this article focuses on trying to answer the following question, ‘what role do NATO Centres of Excellence (COE) play in support of NATO in crisis situations, such as Article 5 operations?’ From the author’s perspective, this is one of Article 5’s grey areas and not fully covered by the provision. Therefore, further discussion and clarification is necessary.

To answer the above question, this article is divided in two sections each discussing a sub-question. Namely, whether COE support in times of crisis is covered by existing documents (Part I), and what Sponsoring Nations (SNs), and possibly Contributing Partners (CPs), will do with their personnel attached to NATO COEs in crisis situations (Part II).

### Part I

NATO COEs are nationally or multi-nationally sponsored entities supporting NATO. COEs can become NATO COEs by the North Atlantic Council’s (NAC) approval of accreditation and activation of a COE as a NATO Military Body under the provisions of the Military Committee (MC) Policy for COEs.<sup>3</sup> By the same decision, a COE can be granted international status under Article 14 of the Paris Protocol<sup>4</sup>. The primary purpose of COEs is to assist with transformation within the Alliance while avoiding the duplication of assets, resources and capabilities already present within the NATO command structure. They generally specialise in one functional area and act as subject matter experts in their field of expertise. They distribute their in-depth knowledge through training, conferences, seminars, concepts, doctrine, lessons learned and papers<sup>5</sup>.

If accredited and activated by the NAC as a NATO Military Body the whole or a part of the Paris Protocol and of the NATO SOFA<sup>6</sup> apply to the COE including, by virtue of Article 16 of the Paris Protocol, Article XV of the NATO SOFA. Article XV provides that the NATO SOFA shall remain in force in the event of hostilities to which the North Atlantic Treaty applies, such as Article 5 of the Washington Treaty.

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<sup>2</sup> [...an armed attack against one or more ... shall be considered an attack against them all ...], Article 5 of the North Atlantic Treaty, dated 4 April 1949

<sup>3</sup> MC 0685, Military Committee Policy for Centres of Excellence, dated 12 February 2020

<sup>4</sup> Protocol on the Status of International Military Headquarters set up pursuant to the North Atlantic Treaty, signed at Paris on 28 August 1952, hereinafter Paris Protocol, available at <https://treaties.un.org/doc/Publication/UNTS/Volume%20200/volume-200-I-2678-English.pdf>

<sup>5</sup> <https://www.act.nato.int/centres-of-excellence>

<sup>6</sup> Agreement between the Parties to the North Atlantic Treaty regarding the status of their forces, dated 19 June 1951, hereinafter NATO SOFA, available at [https://www.nato.int/cps/en/natohq/official\\_texts\\_17265.htm](https://www.nato.int/cps/en/natohq/official_texts_17265.htm)

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In addition to giving NATO and partner country leaders and units the opportunity to augment their education and training, COEs also help the Alliance to expand interoperability, increase capabilities, aid in the development of doctrine and standards, conduct analyses, evaluate lessons-learned, and experiment in order to test and verify concepts.<sup>7</sup> The new MC Policy for COE published in 2020 envisages the possibility for COEs to optionally provide direct support of operations. This support should cover delivering subject matter expertise and responding to complex and time-sensitive requests.<sup>8</sup> However, this support is not fully defined. For more details, a specific and more detailed agreement should be negotiated and concluded among COEs' Sponsoring Nations, HQ SACT and SHAPE. Whether such an agreement will cover support provided during real-time operations is to be addressed during negotiation of said agreement. The relationship between the COE and HQ SACT is established by a Functional Memorandum of Understanding (Functional MOU), which establishes a functional relationship between HQ SACT and SNs. However, this document does not constitute a command relationship between the COE and HQ SACT. This principle is embodied in the Policy for COEs, which explicitly states that there is no command-and-control (C2) relationship between the COEs and the NATO Command Structure (NCS).

If there is no C2 between COEs and NATO, can NATO task COEs to provide support during a crisis? The answer is that currently – having documents covering this issue in mind – NATO can ask but not task COEs. Even though this appears to be a game stopper there are ways to accommodate NATO's requirements while keeping COEs' independence intact.

HQ SACT, as the designed NATO entity for coordination of the NATO-accredited COE, is responsible for coordinating requests from NATO entities and providing these requests to COEs. All requests are considered by the COE and after approval of a Steering Committee (SC, i.e. the body responsible for the direction, guidance and supervision of the COE) become part of the COE Programme of Work (POW). It is up to the SC, hence the SNs, to decide what the COE will do and which request for support will be accepted and executed.

This is a very efficient and quite well-working process for organisations such as COEs. It provides enough flexibility and more importantly independence for COEs to be a unique asset to NATO. Nevertheless, it may not be the swiftest solution in time of crisis, unless such support is envisaged by the already approved POW. This is, to the author's knowledge, not the case in any existing COE.

Now envision a situation where a COE has, as part of its approved POW, direct support of NATO in time of crisis. What happens in case of collision of requests? Whose request takes priority? The answer can be found in the Functional MOU of most COE, or at least to some extent. In accordance with most Functional MOUs, COEs will ensure that services and products requested by HQ SACT on behalf of NATO entities receive the first priority of work. In other words, NATO has priority over other requests for support, including requests coming from SNs and CPs.

So, we have the request for direct support in time of crisis and we know that this request, if coming from NATO, has priority. Is this enough for real and tangible support provided by COEs to the NCS? Probably not, as such requests embodied into the POW will most likely be very general and not necessarily cover all aspects of possible or required support. Therefore, the Policy for COE when mentioning direct support

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<sup>7</sup> <https://www.act.nato.int/centres-of-excellence>

<sup>8</sup> MC 0685, Military Committee Policy for Centres of Excellence, dated 12 February 2020

of operations, also mentions that such support would require close coordination between SACT and SACEUR as well as approval of the COEs' SNs. It remains valid that such support is optional as provided by the MC Policy for COEs as well as due to non-existent C2 between COEs and the NCS.

Close coordination on one hand, and approval of the SNs on the other hand, seems quite difficult to achieve. Therefore, an additional agreement or arrangement among SNs, HQ SACT and SHAPE establishing conditions under which the operational support would be provided seems to be one of the ways to reach this goal. Although such an arrangement goes beyond the four pillars of COEs support to NATO,<sup>9</sup> it can still be seen as an arrangement concluded to provide additional details not covered in the Functional MOU or allow for arrangements pertaining to specific projects to be concluded by the COE. Moreover, coordination and agreement among all participants involved is envisaged, as mentioned above, by the MC Policy for COE.

The "Technical Arrangement among the Joint Chemical, Biological, Radiological and Nuclear Defence COE's (JCBRN Defence COE) SNs, HQ SACT and SHAPE concerning their specific relationship regarding CBRN reachback services provided by the JCBRN Defence COE" (hereinafter TA) can serve as an example. The purpose of this TA is to facilitate – under the auspice of HQ SACT as Strategic Command having overall responsibility for COE co-ordination and employment within NATO – the cooperation between SHAPE and the JCBRN Defence COE and to set out the terms and conditions for an effective cooperation in the field of CBRN reach back and support to SHAPE and its subordinate headquarters.

This TA not only covers close cooperation between the JCBRN Defence COE and SHAPE but also answers most of the questions mentioned earlier. The TA specifies what kind of support the JCBRN Defence COE is supposed to provide and gives guidance, such as on the submission to the annual POW and the direct interaction between the JCBRN Defence COE and SHAPE.

As the TA provides the basis for cooperation, there may be requirements for more detailed documents covering technical and practical details of cooperation. Nevertheless, this does not hamper or weaken the importance of the TA. The TA clearly demonstrates that it can function as a way to more closely cooperate with the NCS and lay down the required support by the Alliance.

It has to be highlighted that the paramount importance for such cooperation and support is the willingness of the SNs to enable and approve it. As mentioned above, the SNs are key stakeholders deciding on the direction and further development of the COE. Without their continuous support and approval such cooperation would not be possible. This leads to the second question.

## Part II

As we established that COE support to NATO in times of crisis is possible under current documents we should switch our attention to the second question, 'What will SNs and possibly CP do with their personnel attached to COE in time of crisis?'

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<sup>9</sup> MC 0685, Military Committee Policy for Centres of Excellence, dated 12 February 2020 - Education, Training, Exercise and Evaluation; Analyses and Lessons Learned; Doctrine Development and Standardization; and Concept Development and Experimentation

The simplest answer to the question is “it depends” and “nobody knows”. It seems that there is nothing in the COE-related documents to provide a sufficient answer or solution. Obviously, this approach goes together with the certain independence of COEs with SNs as key stakeholders deciding on the direction of the COE.

Nevertheless, without an answer to this question, negotiating, and concluding any agreement enabling direct support to SHAPE seems in vain. Imagine a situation when an agreement is in place, NATO is in situation of crisis, SHAPE is asking a COE for support and SNs decide to withdraw their personnel to fill higher priority NCS posts or posts inside their own ministries or armed forces. If such a situation occurs the COE could become an “empty shell”.

SNs’ decision to keep or withdraw its personnel will depend on many circumstances, such as the location and type of conflict, force protection, risk assessment, etc. This article will not provide any answer to the reasoning behind SNs’ decision-making as there is no unified approach to this issue. Nevertheless, this article seeks to raise awareness of this topic and generate discussion not only within COEs, SNs and CPs but the wider NATO community as well.

The JCBRN Defence COE’s SNs and CP – realizing how important this question is and having in mind the TA and close cooperation between the JCBRN Defence COE and SHAPE already in place – voluntarily provided their assessment and answer to the question whether their positions within the COE will remain filled or not in crisis situations. The JCBRN Defence COE Director was tasked by the SC to come up with a study capturing all assessments and answers and giving his views how this support will look like. This study shows that approach of SNs is not united and might vary considerably.

This approach may be far from ideal as the question is general without specific details. Nevertheless, it might give us the very first guidance and understanding of the positions of our SNs and CP. The answers and positions are not exhaustive as there are so many unknowns in such hypothetical situations, nevertheless, it as a good start for a deeper and more detailed discussion.

## Conclusion

This article aimed to answer what role NATO COEs play in support of NATO in crisis situations, such as Article 5 operations. To answer this question, the article discussed two sub-questions. Namely, whether COE support in times of crisis is covered by existing documents, such as Operational and Functional MOUs and MC Policy for COEs, and what SNs and possibly CPs will do with their personnel attached to COE in NATO in crisis situations.

First off, in accordance with established procedures and under documents in place, SNs may decide to and agree to provide operational support to NATO. This needs close coordination among SNs, HQ SACT and SHAPE, ideally captured by written agreement/arrangement signed by all participants.

Secondly, and maybe most importantly, the JCBRN Defence COE study is a good start to have a clear answer on how SNs (and CPs) will do with their personnel attached to a COE in case of crisis affecting the Alliance, if NATO is to rely on this support in crisis situations. The role of SNs and CPs is indispensable for

“operationalizing” COEs. Such a study, as JCBRN Defence COE is tasked to provide, can be done for each individual COE as the general guidance applicable is unlikely to be applicable and adopted for all.

To conclude, due to its function as a hub for expertise and experience COEs can and should play significant role during the crisis situations. Such support is possible if coordinated in advance between shareholders (SNs/CPs and NATO), covered by written agreement/arrangement, and SNs and CPs personnel assigned to the COE is not withdrawn from the COE.

## The role of Space for NATO's Nuclear Defence Strategy

### Jasper R. Krause

#### Introduction

Within NATO's strategic concept from 2022, the Alliance acknowledged both an erosion of arms control, disarmament and non-proliferation architecture (NATO, 2022, p.5), leading to an increased likelihood in the use of chemical, biological, radiological and nuclear weapons, as well as the increased importance of space, and the challenges posed by non-Alliance members (NATO, 2022a, p.4). Heightened dependency upon space for both military and civilian uses of space, have made securing the outermost frontier a crucial aspect for NATO, whilst even classifying it to be an operational military domain in 2019 (NATO, 2022b), alongside the established areas of land, sea, air and cyberspace. Since then, the Alliance has published its overarching Space Policy, founded a Space Centre (SHAPE, 2020) and countries have collaborated under the NATO-framework to establish the Alliance Persistent Surveillance from Space (NATO, 2022c). One may note that one of the key interests of NATO, which the Alliance has highlighted since its founding to the present day, is often only a side-aspect of NATO's debate surrounding space. Nuclear deterrence and defence, require the integration into the existing military domains - including space.

#### Legal Framework for Outer Space

While the mentioned notion of the deterioration of the rule of international law is a prerequisite for the proliferation of weapons of mass destruction, a similar notion can be sensed in the legal framework that governs the conduct within space. The largely unaltered legal framework that exists since the mid-twentieth century has been challenged repeatedly through a non-adherence towards its principles, established through the five main treaties and five main principles governing space. Most notably, space was established as a 'province of mankind' (Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967), with the freedom of exploration and use of outer space by all states without discrimination (United Nations Office for Outer Space Affairs, n.d.). This can be largely compared to the 'mare liberum' approach, that established the seas as a free trade zone for all nations and the property of all (Grotius, 2008). However, through the threat posed by the cold war, nations went further and established that space should be exclusively used for peaceful purposes. Foremost, through a resolution in 1963 and a reaffirmation through the outer space treaty, the international community established that space "[...] exploration and use of outer space shall be carried on for the benefit and in the interests of all mankind." (Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967). The latter also established that the stationing of nuclear weapons and



any form of weapons of mass destruction was explicitly prohibited (Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 1967). The United States often has promoted a view of peaceful being interpreted as nonaggressive (Cheng, 1997). Hence peaceful, according to some nations, is not interpreted as nonmilitary nor civilian. Arising from this interpretation is the conclusion that 'peaceful' can be interpreted as being non-offensive or defensive by nature and thus merely ruling out weapons in outer space that can be utilised for offensive actions. In line with this interpretation are the actions of several countries, who have been testing anti-satellite systems. Even before the clear prohibition of nuclear weapons by the Outer Space Treaty, the Partial Test Ban Treaty ended all atmospheric and exoatmospheric nuclear tests in 1963 (Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water, 1963). Reaffirmation that the general ban on nuclear testing remained in the international community's interests occurred through the Comprehensive Nuclear-Test-Ban Treaty in 1996, which build upon the existing framework and prohibited the testing of not only nuclear weapons in earth's atmosphere, but also on its' surface, underground and underwater (Comprehensive Nuclear Test-Ban Treaty, 1996).

### Space-related Threats for Nuclear Defence

As correctly identified by NATO's space policy, the threat in relation to space, ranges from non-kinetic weapon systems with minor and local effects, to non-kinetic as well as kinetic weapon systems, being able to inflict irreversible damage and partially not discriminate between targets. Furthermore, one should take into account adversaries' space-enabled capabilities to identify targets, monitor and effectively allow for offensive actions, as well as the defensive capabilities that come along with the monitoring, detection and responsiveness enabled by space-located equipment.. Considering the deterioration of arms control and disarmament architecture, this may also extend towards space, with states challenging the international law governing the conduct within space. The increase in concern regarding space-enabled weapon systems can largely be attributed to a reduction of costs and advancements in technology having led to further the feasibility of previously only theoretical weapon systems. While not only purely offensive means are enabled, space also allows for enhanced intelligence gathering and monitoring, which may include insights regarding weapon storage sites, but also critical infrastructure, and sites handling hazardous materials posing a hazard to their surroundings if not adequately contained.

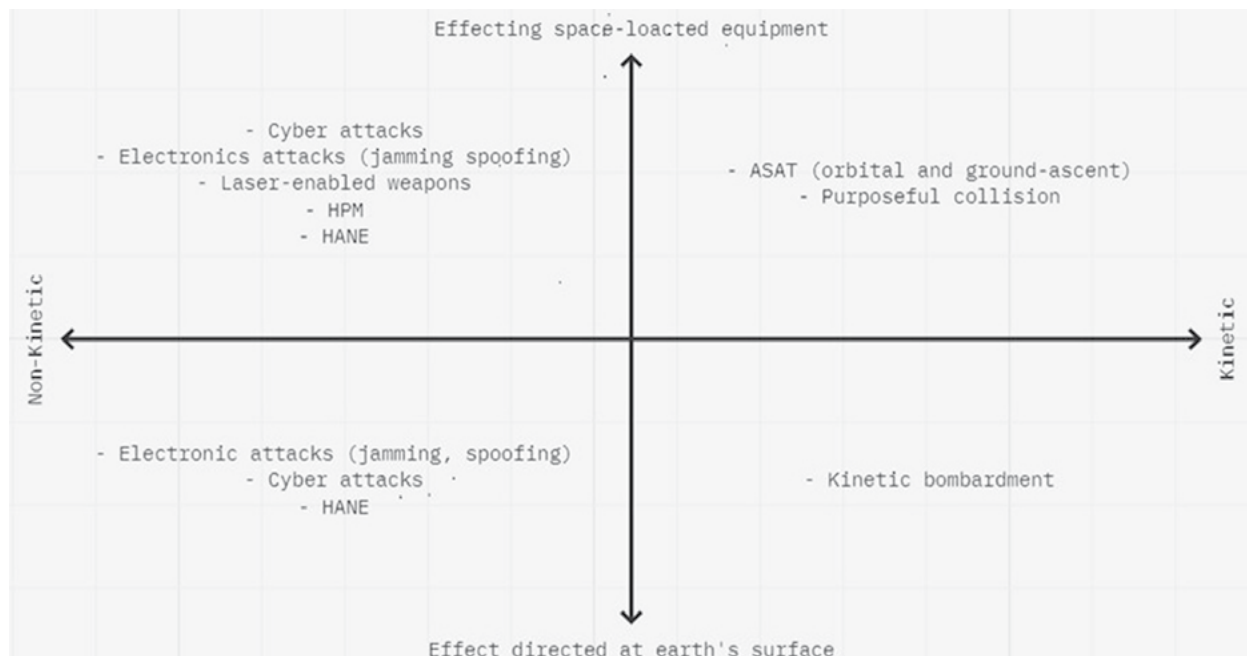


Figure 1: Matrix showing the variety of space weapons, based on being either kinetic or non-kinetic and having an affect in space or on earth's surface.

In broad terms, space weaponry can be divided by two axes, being if they act by kinetic or non-kinetic means and their effect being either within space or on earth's surface. Looking at non-kinetic weapons there are a few varieties which are laser-enabled, cyber attacks, high powered microwaves (HPM), electronic attacks and high altitude nuclear explosions (HANE). The latter of course has been banned repeatedly under international law through the Partial Test Ban Treaty (Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water, 1963), the Outer Space Treaty and the Comprehensive Nuclear-Test-Ban Treaty (Comprehensive Nuclear Test-Ban Treaty, 1996). Despite this they have been tested in the past and remain feasible weapon systems. A HANE requires a relatively minor nuclear warhead and unlike regular nuclear weapons explosions on earth's surface, the kinetic effects of HANE's are negligible and their primary effect on electronics of all kinds on earth's surface and in space is through disruptions by electromagnetic pulses. Furthermore, tests have shown to effectively spoof GPS signals emitted by satellites, leading to the veering off course of vessels (Harrison, et al., p. 4). Similar effects are easily replicable for other types of navigation for military and civilian means. Laser-enabled weapon systems and HPM are theoretically feasible; however, they are relatively costly and require a high sophistication (Harrison, et al p.3). In addition, the dispersion and related weakening of their effect over greater distances, means that they are most feasible when deployed from space and towards satellites (Harrison, et al, p.4). Cyber attacks are not different from conventional cyber attacks on earth, with the capability of disabling systems temporarily, taking control of them or disabling them permanently, similar to normal computer systems on earth. Russia and China both have

allegedly been testing electronic and cyber means to disrupt satellites (Harrison, et al., p. 23; Tigner, 2018).

When it comes to kinetic weapons and attacks, there are predominantly anti-satellite weapons (ASAT), the repurposing of (redundant) satellites for purposeful collisions and the theoretical approach of kinetic bombardment. Both, ASATs and purposeful collisions, have been successfully tested in the past (Saunders, 2007), with only kinetic bombardments remaining a theoretical approach in the present. Purposefully colliding satellites and using ASATs has the potential of significantly disrupting all capabilities that are partially or fully dependent on satellites, amongst which many are also crucial for nuclear defence and military operations as a whole. Especially the unpredictability of which satellite may be set onto a collision course with another satellite, makes these dangerous and virtually impossible to combat.

What can be derived from this brief analysis is, that it is not the weapon systems in space that have an effect on earth's surface and cause a nuclear incident, such as kinetic bombardment aimed on nuclear power plants, but rather the secondary and indirect effects which space weaponry can have upon monitoring, interception and responsiveness towards nuclear incidents and attacks by either temporarily or permanently damaging satellites, which are critical for a variety of functions.

### Space as an Enabler of Nuclear Defence

Mentioned in NATO's Space Policy is that "due consideration will need to be given to the role of space as a key enabler for operational domains, as well as for NATO Integrated Air and Missile Defence, and, for Allies concerned, nuclear deterrence" (NATO, 2022d). Mentioned within the same document are five roles, which space can assist in, which are (i) the positioning, navigation, and timing of strikes, tracking of forces or search and rescue missions, (ii) early warning for force protection and missile launches, (iii) environmental monitoring, (iv) secure satellite communications and (v) intelligence, surveillance and reconnaissance (NATO, 2022d). All five roles are crucial topics for nuclear defence, including the detection, monitoring and modelling of threats, to enhance preparedness, mitigate the impact and allow for adequate and timely responses. First, satellites are a crucial part of nuclear warfare, both for adversaries deploying nuclear weapons, as well as for many counter-measures to be able to intercept nuclear weapons. Second, satellites can provide continuous information about known weapon storage locations, to be able to continuously assess the threat situation. Additionally, information by satellites can provide insights regarding the temperature, albedo, wind velocity and humidity (Sutlieff et al., 2021, p. 731-738), which can all be used to accurately predict and mitigate potential impacts. Furthermore, latency issues are presenting a challenge, especially within time critical situations, as are often the case for defence and response purposes (Sutlieff et al., 2021, p. 741-744).

Opportunities thus range from intelligence operations to more actively defensive measures that seek to disrupt threats located within or moving through space. Denial and deception, directed energy weapons, satellite data and more may all be considered to be enablers for space to be utilised for strengthening NATO's nuclear defence capabilities and readiness for nuclear incident responses. The issue that arises from some of these is that many of these approaches have dual-use capabilities, which can contribute to a further escalation of an arms race in space.

### Recommended Approach

As highlighted, space is a multi-faceted domain of warfare that presents both challenge and opportunity. Based on this it should be considered to further integrate space into NATO's structures, both on an organisational level and on an individual level of member states. The Alliance should facilitate the integration of space capabilities into the overall nuclear defence approach on a tactical, operational and strategic level. Intelligence gathering and sharing, warning systems and shared capabilities all should be integrated on a multinational level. As space presents yet largely unknown strategic opportunities for the Alliance and its adversaries, NATO should seek to build its capabilities under the current legal framework for defensive purposes. Awareness should however be given towards the fact that dual-use systems present a delicate balance between providing enhanced capabilities and being perceived as aggressive actions by outside observers.

Inadvertently, by mitigating the risks posed through space-enabled capabilities by taking advantage of the new opportunities, is the issue of creating an overreliance upon new capabilities. Whilst this is a normal process, it should be considered that satellites present critical infrastructure, which is highly sensitive and unprotected. Therefore, relying too much on these systems for nuclear defence, would result in the creation of substantive vulnerabilities in NATO's nuclear defence strategy.

### Conclusion

The viability of space to be utilised as a domain of warfare has gained momentum within the last decades, with this trend only accelerating and calling for the necessity to not fall behind and allowing other actors to gain superiority of space, while simultaneously adhering to the established framework governing space, not create vulnerabilities in NATO's nuclear defence or contributing towards the escalation of an arms race. A failure to act and incorporate nuclear defence into NATO's overall space strategy would leave a plethora of potential strategic benefits untapped, while simultaneously allowing other actors to broaden their advantage. As such, NATO has to adapt a holistic approach, on the level of individual member states and on a multinational level and throughout its branches to adequately address the increasingly important domain of space.

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