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## **Effective Orchestration? The 1540 Committee and the WMD Terrorism Regime Complex**

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### **The UN Security Council and the Prevention of WMD Terrorism**

Weapons of Mass Destruction (WMD) – chemical, biological and nuclear weapons and their means of delivery – have been regulated by a variety of international institutions and legal arrangements for decades (Knopf, 2016). Traditionally, international efforts have focused on state actors, in particular on the prevention of WMD proliferation to nation states. In the early 2000s, however, two shocks highlighted the real possibility that nonstate actors might be able and willing to use WMD in acts of mass impact terrorism: First, the terrorist attacks in New York and Washington, DC, on 11 September 2001 made clear that terrorist organizations were willing and able to inflict mass casualties; second, in early 2004, following a persistent US investigation, A.Q. Khan, the lead scientist in Pakistan's nuclear weapon programme, confessed to having run an illicit nuclear supply network, thus, revealing the existence of possible ways to acquire WMD clandestinely (Tobey, 2018). These two events represented a critical juncture in the evolution of the international regimes regulating WMD (Wan, 2014). For the first time, states agreed on various international measures to address specifically WMD-related risks posed by nonstate actors.

Central to the international efforts to prevent WMD terrorism was a US initiative that led to the adoption of Resolution 1540 by the United Nations (UN) Security Council in April 2004. In many respects, the adoption of the resolution was unprecedented. It created the first legally

binding international tool that targeted specifically the proliferation of all types of WMD to nonstate actors. Most notably, it established a legislative framework that became legally binding for all UN member states under Chapter VII of the UN Charter. In essence, the resolution had the potential to become a very powerful instrument in the international nonproliferation toolbox. However, it was also marred with significant structural problems from the very beginning. Due to the unusual use of Chapter VII for a resolution that did not target concrete nation states or organizations, it was highly controversial amongst UN member states and, thus, its implementation suffered from a substantial lack of legitimacy (Salisbury, 2018). At the same time, despite its legally binding nature, it lacked strong enforcement mechanisms and relied largely on ‘soft modes of governance’ for its implementation (Heupel, 2008), especially in the form of the institutionally weak 1540 Committee, an ad hoc monitoring committee of the Security Council. Moreover, Resolution 1540 turned out to be only one of several formal and informal international instruments with overlapping but not harmonious membership and mandates (Bowen et al., 2012). This means the resolution became entangled in what will be described in this paper as the WMD terrorism regime complex.

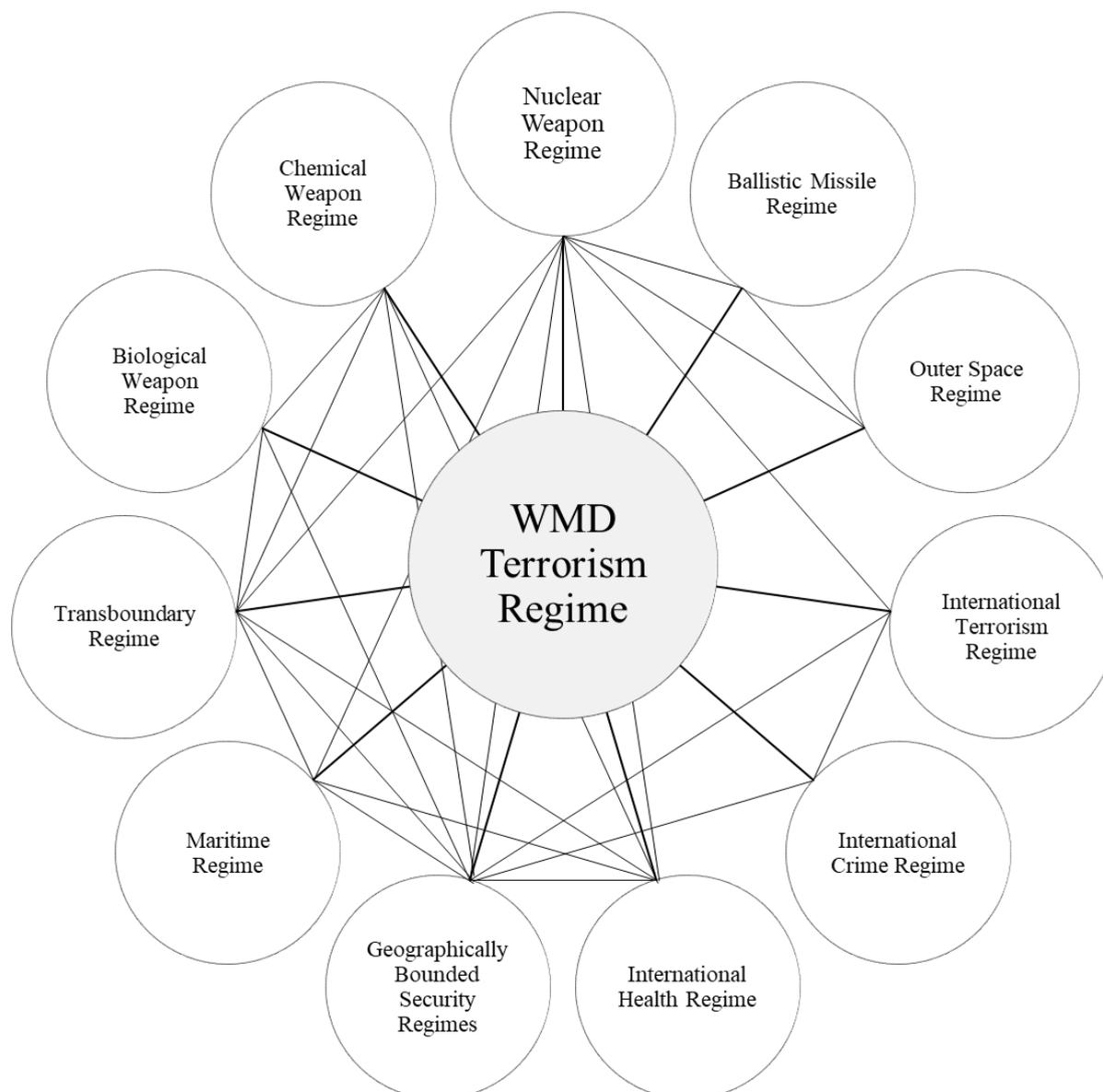
Given these challenges, large parts of the literature on Resolution 1540 has focused on the effectiveness of its implementation in UN member states; that is, the extent to which nation states have actually implemented the legislative provisions of the resolution (Ogilvie-White, 2016; Viski, 2018). Although this has brought about a good understanding of the impact of the resolution at the national level, fairly little attention has been paid to *how* the Security Council and its 1540 Committee have implemented the resolution in face of the institutional problems outlined above. In other words, how can an institutionally weak and – in the eyes of some UN member states – illegitimate body such as the 1540 Committee overcome its structural constraints to achieve its objectives? Building upon theoretical developments concerning the management of regime complexes (Abbott et al., 2015; Gehring and Faude, 2014; Stokke and Oberthür, 2011), this paper argues that the 1540 Committee has increasingly resorted to ‘orchestration’, a process where ‘an IGO [intergovernmental organization] enlists and supports intermediary actors to address target actors in pursuit of IGO governance goals’ (Abbott et al., 2015). These intermediary actors from the wider WMD terrorism regime complex have provided crucial material and ideational capabilities for the implementation of Resolution 1540 in UN member states. Yet, in contrast to the existing ‘orchestration’ literature that focuses mainly on the emergence of this form of governance, this article goes one step further and examines specifically its effectiveness.

The remainder of the article is structured as follows: First, by making use of insights from regime complex theory, the article will disentangle how Resolution 1540 and its Security Council Committee are related to the other international instruments of the wider WMD terrorism regime complex. Second, this will form the basis for the analysis of how the 1540 Committee has become a ‘regime orchestrator’ and used other elements of the WMD terrorism regime complex as intermediaries to implement Resolution 1540. Third, the article will examine the extent to which the orchestration by the 1540 Committee was effective based on a range of process performance indicators. Finally, the conclusions will reflect upon the wider implications of this analysis.

### **The WMD Terrorism Regime Complex**

Since its adoption in 2004, UN Security Council Resolution 1540 has remained the only legally binding international instrument that addresses comprehensively WMD terrorism issues. Yet, already the resolution itself recognized that it is only one element amongst a large number of other relevant international agreements and organizations, most of which are directly related to the field of non-proliferation of biological, chemical and nuclear weapons. It lists specifically the Nuclear Non-Proliferation Treaty (NPT), the Chemical Weapons Convention (CWC), the Biological and Toxin Weapons Convention (BTWC), the International Atomic Energy Agency (IAEA) and the Organization for the Prohibition of Chemical Weapons (OPCW). However, many other relevant agreements and organizations remain unnamed. Based on publicly available databases and the information provided by the 1540 Committee, it is possible to identify eleven other international regimes, whose agreements and organizations are partially relevant for the fight against WMD terrorism (see figure 1). Together with the WMD terrorism regime in a strict sense they form ‘a complex, sometimes overlapping, and growing web of measures to stem the proliferation of WMD’ (Tobey 2018, 624-625). In other words, they constitute what international regime theory calls a ‘regime complex’, i.e. ‘an array of partially overlapping and nonhierarchical institutions governing a particular issue-area’ (Raustiala and Victor, 2004, 333).

#### **Figure 1. The global WMD terrorism regime complex**



*Sources:* 1540 Committee; IAEA; Nuclear Threat Initiative; United Nations Office for Disarmament Affairs (UNODA).

Figure 1 illustrates schematically the WMD terrorism regime complex. Individual regimes are represented by circles and the connectors indicate functional overlap between different regimes (see Orsini et al., 2013, p. 32; Stokke and Oberthür, 2011, p. 12). At the centre of the regime complex lies the WMD terrorism regime comprising those international instruments that address directly WMD terrorism. Apart from Resolution 1540 and the 1540 Committee, this includes the G8 Global Partnership, a coordination mechanism for international projects to prevent WMD terrorism, and the Proliferation Security Initiative, an informal, US-led coalition of states willing to coordinate their efforts against WMD proliferation. This core regime is connected to eleven other regimes that have some relevance for the prevention of WMD

terrorism. In this regard, the most relevant regimes are those directly addressing either terrorism, WMD or the means of delivery of WMD, i.e. the international terrorism regime, the regimes dealing with the proliferation of chemical, biological and nuclear weapons and the ballistic missile regime. It also includes the outer space regime, which establishes a nuclear weapon free outer space and is linked to the control of ballistic missiles. In the case of the international terrorism regime, the work of the 1540 Committee overlaps with the work of a similar ad hoc committee of the Security Council, the Counter-Terrorism Committee, which was established three years before and is guided by Resolutions 1373 and 1624. The largest regime is by far the one addressing nuclear weapon issues. It includes *inter alia* the NPT, the IAEA and the Comprehensive Nuclear-Test-Ban Treaty (CTBT<sup>1</sup>). Most importantly, during the last 15 years the nuclear weapon regime has seen the evolution of a number of nuclear security instruments designed to prevent specifically nuclear terrorism. These instruments include the International Convention on the Suppression of Acts of Nuclear Terrorism, the Global Initiative to Combat Nuclear Terrorism, the Convention on the Physical Protection of Nuclear Material and various IAEA guidelines, recommendations and codes of conduct (Bowen et al., 2012). In practice, there is a significant overlap between the WMD regime complex and the well-established non-proliferation regimes for biological, chemical and nuclear weapons. This shows that to a large extent the WMD regime complex is not new. It rather relies on giving existing regimes the additional purpose of preventing WMD terrorism.

The relevance of the remaining five regimes appear to be less obvious, but each of them does play a role in the prevention of WMD terrorism. The clearest case are the various regional organizations comprising the geographically bounded security regimes. These organizations address directly issues related to WMD and terrorism in a geographically limited space, in particular at the regional level. For example, the European Union has developed an extensive WMD nonproliferation policy of its own (Kienzle, 2013) and supports directly the work of the 1540 Committee (Grip, 2012). The transboundary regime, for its part, addresses the movement of WMD-related material across international borders (UNODA, no date, pp. 41-42). Likewise, the maritime regime helps to regulate WMD-related materials on the high seas. The international health regime is relevant in so far as organizations such as the World Health Organizations are concerned with the health effects of chemical, biological or nuclear material and their mitigation (UNODA, no date, p. 27). Finally, the international crime regime addresses terrorism and other relevant criminal activities such as the smuggling of WMD-related material. For instance, the UN Office on Drugs and Crime (UNODC), a key institution of the

regime, is responsible for the coordination of the various international counterterrorism instruments (Sandage, 2014).

As can be seen in figure 1, the different regimes of the WMD terrorism regime complex are not only relevant for the prevention of WMD terrorism but have also important links amongst each other. For instance, the Basel Convention, an element of the transboundary regime, affects also international health, as it controls hazardous material. It is also important to emphasize that there is no clear hierarchical relationship between different regimes and their elements. Although in principle the UN Security Council has the ultimate responsibility for maintaining international peace and security, it has refrained from any hierarchical modes of governance such as the use of sanctions regarding the implementation of Resolution 1540 (Heupel, 2008). Furthermore, on the insistence of various Security Council member states at the time of its adoption, the resolution states explicitly that it may not ‘conflict with or alter the rights and obligations of State Parties’ to the key treaties and organizations addressing chemical, biological and nuclear weapons (United Nations Security Council, 2004, p. 3). So, all in all, the prevention of WMD terrorism at the international level relies on a complex, nonhierarchical and, thus, difficult to manage web of overlapping agreements and organizations.

### **Increasing Orchestration by the 1540 Committee**

The existence of regime complexes in a large number of issue areas has led to an increasing number of analyses about their impact and consequences (Alter and Meunier, 2009). In this regard, scholars have paid a lot of attention to the adverse effects of regime complexes (Alter and Raustiala, 2018, pp. 343-344). However, they have also shown how individual institutions can deal with regime complexes through ‘interplay management’, i.e. ‘conscious efforts by any relevant actor or group of actors, in whatever form or forum, to address and improve institutional interaction and its effects’ (Stokke and Oberthür, 2011, p. 6). Gehring and Faude (2014), for example, outline how a ‘division of labor’ can emerge amongst different elements of a regime complex. As Abbott et al. (2015, p. 4) have shown, a particularly widespread form of interplay management is ‘orchestration’, where the orchestrating institution ‘uses ideational and/or material inducements to create, integrate and maintain a multi-actor system of soft and indirect governance, geared toward shared goals that neither orchestrator nor intermediaries could achieve on their own’. This section will outline why and how the 1540 Committee has

turned into an important orchestrator in a key issue in international security, namely the prevention of WMD terrorism.

The existing literature has identified a set of conditions, under which orchestration can occur (Abbott et al., 2015, p. 20; Hale and Roger, 2014, pp. 66-68). The most important ones are all present in the case of the 1540 Committee. First of all, there must be a need for orchestration, usually due to a lack of capabilities. As Hale and Roger (2014, 66) argue, ‘An IO (...) may choose to orchestrate because it has a broad mandate to address certain issues but has not itself been delegated the capacity or authority to promulgate formal regulations and standards as a domestic regulatory agency might’. This gap between mandate and capacity is particularly wide in the case of Resolution 1540 and the 1540 Committee. While UN Security Council members at the time of the resolution’s adoption supported a fairly strong mandate in the form of legally binding regulations, there was substantial disagreement about its implementation and the need for an implementation institution. While some actors such as the United Kingdom favoured a well-resourced secretariat to implement Resolution 1540, a large number of UN member states were wary about delegating too much authority to the Security Council (Tobey, 2018). This included the United States, the prime mover behind the resolution, but it was particularly pronounced in the Global South, where a large number of nation states objected to the adoption of a resolution under Chapter VII for regulatory purposes and regarded it as an illegitimate imposition by the Security Council (Shirazyan, 2019). Developing countries were particularly worried about the disproportionate burden that the implementation of all the different measures under Resolution 1540 would put on them (Ogilvie-White, 2016). So, eventually the members of the Security Council settled on establishing a UN body in the form of an ad hoc ‘Committee of the Security Council’ with little authority (Tobey, 2018). In other words, the institutional weakness of the 1540 Committee was designed to alleviate the strong reservations about Resolution 1540 in a large number of UN member states (Shirazyan, 2019). Initially, the Committee was only responsible for reporting to the Security Council about the implementation of the resolution in UN member states, though subsequent resolutions, in particular Resolutions 1673 (2006), 1810 (2008) and 1977 (2011), extended somewhat its responsibilities (Salisbury, 2018).

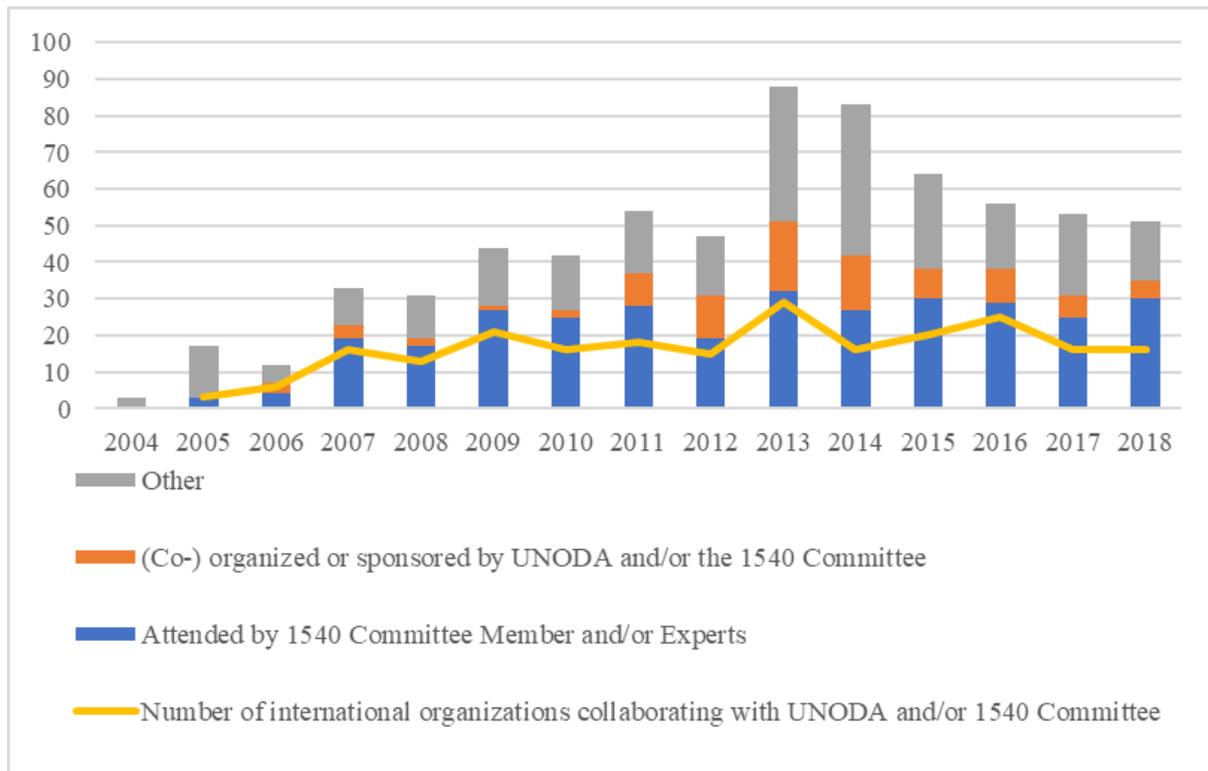
The institutional weakness of the 1540 Committee is reflected in its relative lack of resources (Beck, 2015, 2). The staff numbers have remained fairly small throughout its existence. It consists of 15 representatives of the Security Council and a Group of Experts, consisting

initially of eight and, since 2012, of nine experts. The UN Secretariat, in particular UNODA, also underpins the work of the 1540 Committee, though merely a handful of officers are involved at any given time. In terms of funding, the Committee had to cope with a comparatively small budget. According to a former expert, ‘The direct budget for the 1540 Committee (...) covering UN Secretariat staffing, fees for experts, official travel expenses, and various operational costs, started at roughly \$2.1 million in 2006 (the first full year for which experts were on staff), and grew to \$3.1 million in 2011’. Consequently, a lot of the work of the Committee relies on voluntary, but less reliable funding from member states and other international organizations. Furthermore, the work of the Committee has been hampered by short mandate periods, which are another reflection of its controversial nature. During the first seven years, the mandate had to be prolonged three times. It was only in 2011 that the mandate was extended for a full ten-year period. In sum, the institutional weakness of the 1540 Committee has required the support of other actors to ensure the implementation of Resolution 1540 early on (Heupel. 2007, p. 8).

While the lack of capabilities creates a demand for orchestration, it also requires the existence of potential ‘supply actors’ in the form of ‘intermediaries with correlated goals and complementary capabilities’ (Abbott et al., 2015, p. 22). In the case of the 1540 Committee these intermediaries are mainly formal and informal intergovernmental organizations. A small number of UN member states also act as funders and hosts of relevant events, in particular Canada, France, Germany, Japan, the United Kingdom and the United States (Interview N2, New York, April 2018<sup>2</sup>). So, although UN member states are considered to be the targets of Resolution 1540, a selected few of these states are ‘double hatted’ as both targets and intermediaries. Nonstate actors, which have been identified in the literature as important intermediaries, even in the UN Security Council (Hauser, 2015), play only a very subordinate role. Yet, even without nonstate actors, the pool of potential intermediaries in the wider WMD terrorism regime complex is large, as figure 1 illustrates. In this regard, the well-established organizations of the non-proliferation regimes play a particularly important role, as their objectives overlap significantly with those of the 1540 Committee (Bosch and van Ham, 2007). Although Resolution 1540 did not foresee the cooperation between the 1540 Committee and other international organizations, in practice the 1540 Committee has engaged formally and informally with other international organizations from the very beginning (Cupitt, 2012).

This increasing cooperation has been a reflection of a general UN culture to work with other international organizations (Abbott et al., 2015, pp. 25-26; Hale and Roger, p. 68; United Nations General Assembly, 2006). The cooperation on WMD terrorism is also embedded in already existing bilateral agreements between the UN and other international organizations, e.g. the 2000 Relationship Agreement between the UN and the OPCW. At the same time, functioning interinstitutional relations require a certain degree of willingness by other international organizations to engage and work with the UN and the 1540 Committee in particular. In this regard, the Committee functions as a ‘natural focal institution’ (Hale and Roger, 2014, 67) or ‘overarching institutional framework’ (Stokke and Oberthür, 2011, p. 9) for other actors addressing WMD terrorism. Its ‘focality’ (Abbott et al., 2015, pp. 23-24) stems mainly from the fact that it is a Security Council Committee (Andemicael, 2015, p. 65) and the only institution with a legally binding mandate addressing all aspects of WMD terrorism prevention (see figure 1). Although this does not mean that the Committee can direct or instruct the work of other international organizations, it is attractive for other international organizations to associate their work with the Security Council as the main international authority on matters of international peace and security (Interview N2 and N3, New York, April 2018). In this context, it is also important to emphasize that this legitimacy transfer has been mutual. The collaboration of the 1540 Committee with international organizations, especially at the regional and sub-regional level, has turned out to be an effective way to increase the legitimacy of the 1540 Committee in the eyes of those UN member states that had a lot of reservations about the resolution in the first place (Ogilvie-White, 2016; Shirazyan, 2019).

**Figure 2. Resolution 1540-related activities with collaboration between the 1540 Committee and/or UNODA and other international organizations, per year**



Sources: 1540 Committee.

Note: UNODA, a department within the UN Secretariat, is technically a separate entity from the 1540 Committee. But it supports directly the work of the Committee and is, therefore, included here.

Given the broad conditions that favour orchestration in the case of the 1540 Committee, how has the process of orchestration come about and manifested itself in practice? Initially, orchestration activities emphasized the importance of implementation assistance, as reflected in the focus of Resolution 1673 – the first resolution to mention explicitly orchestration-type activities – on the ‘the availability of programmes which might facilitate the implementation of resolution 1540’ (United Nations Security Council, 2006b, p. 2).<sup>3</sup> This initial emphasis on assistance programmes is hardly surprising, as many developing nations were concerned that the domestic implementation of the resolution would put a heavy burden on them (Shirazy, 2019). Apart from adhering to relevant international instruments of the wider WMD terrorism regime complex, nation states are required to adopt relevant domestic regulatory frameworks and the corresponding enforcement mechanisms to prevent the proliferation of WMD, to secure and protect sensitive biological, chemical and nuclear material and know-how and to improve border, trade and trans-shipment controls.

In practice, however, orchestration has mainly taken the form of coordination and information-sharing activities, in particular organizing common events (see figure 2), establishing points of contact and the exchange of experiences, lessons learnt and best practices (1540 Committee,

2019a). As figure 2 shows, common events and missions have increased, especially after 2006 and peaking in 2013 and 2014 in the run up to the 10<sup>th</sup> anniversary of Resolution 1540. Over time, the 1540 Committee has also developed a targeted coordination mechanism in the form of a specific clearinghouse role that facilitates the cooperation between UN member states that require assistance with their implementation of Resolution 1540 and organizations that can offer such assistance. To this end, the website of the 1540 Committee lists both requests and offers of assistance (1540 Committee, 2019b). Finally, the Committee has encouraged other international organizations to adopt the obligations and key provisions of Resolution 1540 in their own relevant regulations, guidelines and instruments. This type of orchestration was codified by Resolution 2325 (2016), although it existed in practice well before that.

### **Orchestration Performance**

Orchestration has played a salient role in the implementation of Resolution 1540. However, the mere existence of orchestration as an implementation mechanism reveals fairly little about its effectiveness. So, this section examines specifically the effectiveness of the 1540 Committee's orchestration efforts. This requires in the first place to define what is being measured based on what standards (Underdal, 1992). Given the complexities of the causes of WMD terrorism, it would not be convincing to measure effectiveness in terms of overall problem-solving, i.e. the extent to which orchestration contributes to the ultimate goal of Resolution 1540, namely the prevention of WMD terrorism. Likewise, intermediate outcomes, most notably the increasing, but regionally varied adoption of the provisions of Resolution 1540 by UN member states (Viski, 2018) might correlate with orchestration activities but are difficult to attribute directly to them without country-based case studies. The focus here is rather on 'process performance' or, more specifically, the extent to which the immediate goals of the process of orchestration are achieved (Gutner and Thompson, 2010, pp. 234-236). Based on the outline of the orchestration activities of the 1540 Committee in the section above, these goals are found in three broad areas: (a) the coordination of a heterogenous set of intermediary actors, (b) the interinstitutional exchange of information and (c) the diffusion of the provisions of Resolution 1540 to the intermediary actors.

### ***Patterns of Collaboration***

Since 2005, the 1540 Committee has collaborated at least once with 47 different international organizations (see Supporting Information). This means that it has had active contact with the large majority of the organizations of the WMD terrorism regime complex. Of the international organizations that the 1540 Committee has sought explicitly to collaborate with (United Nations, 2013), only six have not carried out collaborative activities with the Committee.<sup>4</sup> Given the complexity of the WMD terrorism regime complex and of the prevention of WMD terrorism in general, the persistent collaboration with a wide variety of actors is an important indicator for the orchestration performance of the 1540 Committee. However, more importantly, the collaboration needs to be stable and durable to facilitate the coherent and consistent coordination of the activities supporting Resolution 1540. Yet, the analysis of the collaboration between the 1540 Committee and intermediary actors reveals an uneven pattern in this regard.

First, the quality of interaction has varied substantially between different intermediaries. Of the 47 institutions collaborating with the 1540 Committee, only 14 have also designated points of contact for the 1540 Committee and merely four have submitted reports on experience shared, lessons learned and effective practices (see Supporting Information). In a similar vein, the number of collaborative activities is substantially higher with some intermediaries, in particular the EU, the Organization for Security and Co-operation in Europe (OSCE) and UNODC, than with others, where there have been only one or two activities. The intensity of collaboration with concrete intermediaries can also vary from year to year. Furthermore, the type of collaborative activities does not follow a clear pattern and include a mix of seminars and workshops, training activities and country visits. In sum, the collaboration between the 1540 Committee and its intermediaries has been organized largely in an ad hoc fashion without any indication of strategic planning on behalf of the 1540 Committee (Beck, 2015, p. 5). More specifically, the collaboration has not been driven by a systematic analysis of what is required to implement Resolution 1540, but by the availability and willingness of intermediary actors to interact with the 1540 Committee (Bosch, 2015, p. 22). Regarding the latter, crossinstitutional personal relationships have played an important role (Interview N2, New York, April 2018). The collaboration between the 1540 Committee and its intermediaries has also lacked a consistent multi-institutional dimension. That is, the 1540 Committee's collaboration activities have been organized in the form of a hub and spoke model, where the Committee forms the hub and the intermediary actors the spokes (Interview N3, New York,

April 2018). As a consequence, there has been very little interaction or coordination between the intermediaries themselves, apart from two multi-institutional conferences in 2010 and 2016.

Another important inconsistency in the 1540 Committee's collaboration with intermediary actors is its reluctance to seek a close relationship with nonstate actors, either in the form of nongovernmental organizations or private companies. It took until 2011 that Resolution 1977 finally encouraged 'the 1540 Committee, at its discretion, to draw also on relevant expertise, including, civil society and the private sector, with, as appropriate, their State's consent'. Although a number of scholars (Finlay, 2012; Kiessler, 2015) have identified a crucial role for civil society and private industry for the implementation of Resolution 1540, the relationship between the 1540 Committee and civil society actors has been described by a former Committee expert as 'sporadic' and suffering from 'strategic blindness' (Perkins, 2015, pp. 101 and 103). While a number of important civil society actors in the field of nonproliferation such as the Nuclear Threat Initiative, the Stimson Center or the Verification Research, Training and Information Centre, have strongly supported the implementation of Resolution 1540 with their own activities, they have done so without the consistent collaboration with and coordination by the 1540 Committee. The most promising collaboration between the 1540 Committee and nonstate actors so far has been in the framework of the so-called 'Wiesbaden process', a series of annual outreach conferences hosted by Germany since 2012 (Roeser and Jalabert, 2018). This process brings together representatives of the 1540 Committee, national governments and private industry and highlights both the importance of private industry as the ultimate target of Resolution 1540 and the intermediary role nation states such as Germany can play. Overall, however, the scope of the Wiesbaden process has remained limited (Kiessler, 2015).

The main challenge for the 1540 Committee is that its collaboration and coordination activities require time and resources, both of which the Committee has lacked from the very beginning. As outlined above, it was this lack that triggered orchestration in the first place. Yet, according to a former member of the Group of Experts, 'the growing interest in the resolution among relevant stakeholders in the international community has worsened the task-resources gap' (Cupitt, 2012). Furthermore, the coordination efforts of the 1540 Committee have suffered from the Security Council's high degree of politicization. As Stewart has pointed out, 'as a political rather than technical body, its decisions are often politicised, reflecting the interests in particular of the veto-wielding Security Council members'. For example, after the suspension

of Russia's participation in the G8 from 2014 on, the collaboration between the 1540 Committee and the G8 Global Partnership has become much more problematic. Likewise, Russia is critical of the OSCE's involvement in matters of WMD and, thus, the OSCE's collaboration with the 1540 Committee (Interview V5, Vienna, July 2018). Finally, a few intermediary actors, especially resourceful international organizations such as the IAEA and EU, have been reluctant to be guided by the 1540 Committee (Interview N2, New York, April 2018). While the IAEA acknowledges the importance of Resolution 1540 for its own nuclear security work (Mrabit, 2012), it still maintains its own distinct set of obligations, priorities and approaches, which are not always entirely compatible with Resolution 1540 (Interview N2, New York, April 2018; Gahlaut, 2015, p. 60). For instance, IAEA safeguards inspectors cannot investigate issues related to the prevention of nuclear terrorism, as this is not covered by their mandate. In a similar vein, as Gahlaut (2015, p. 60) highlights, 'OPCW assistance cannot include best practices on chemical safety and security, or even on trade controls, because this is not part of the CWC-mandate'.

### ***Information Exchange***

Effective orchestration depends on having coherent information about the relevant activities of intermediary actors and the ability to analyse the information comprehensively. Only if the orchestrator occupies the informational high ground will it be able to identify priorities, gaps, duplication and best practices amongst a wide variety of intermediaries. Resolution 1977 encourages explicitly the information exchange between the 1540 Committee and international organizations and, more recently, Resolution 2325 '[r]equests the 1540 Committee to convene regular meetings (...) with relevant international, regional and subregional organizations to share information and experiences on their efforts to facilitate implementation of resolution 1540 (2004), thereby contributing to promoting coordination of such efforts'. However, due to the limited capabilities of the 1540 Committee, the political sensitivities of the Security Council and the reluctance of intermediary actors as outlined in the previous section, effective information exchange has remained problematic. With most of the 1540 Committee's information gathering focused on the implementation of Resolution 1540 in UN member states, information exchange with international organizations has taken a back seat. Most information exchange has occurred during the short events represented in figure 2, but as Beck (2015, p. 6), a former Committee Expert, criticizes, 'short visits of one to two days by one or two 1540

experts and/or committee members to countries or meetings of international, regional or subregional organisations cannot go far beyond raising awareness’.

At the strategic level, the 1540 Committee lacks a comprehensive information exchange framework aimed at collecting systematically relevant information. In this regard, the lack of exchange of information on best practices between the 1540 Committee and relevant international organizations has been identified as the weakest link (Interview N3, New York, April 2018, see also Cupitt, 2015, 36-37). Even where the 1540 Committee has tried to facilitate the systematic exchange of information, namely the previously mentioned clearinghouse facility for assistance requests and offers, it has not worked effectively. As a UNODA report (no date, p. 16) laments,

...few States utilise the Committee’s assistance mechanism, and those that in the recent past did submit assistance requests, even fewer received assistance as a direct result of their requests. Furthermore, in some cases, relevant international organisations have responded positively to assistance requests, but the States requesting the assistance have yet to formally accept most of these offers. As a result, these offers have not been taken up.

Reportedly, different intermediary actors have even offered the same type of assistance in the same country (Gahlaut, 2019, p. 59) Furthermore, the assistance requests by states can be unclear and contradictory, with different types of requests coming from different national departments (Interview N3, New York, April 2018). This is exacerbated by different national departments interacting with different intermediary actors (see Palanque, 2015, p. 76).

Politically, information exchange has also proven to be a delicate matter, especially regarding information on the implementation of Resolution 1540 in UN Member States. Due to the political sensitivities of UN member states regarding Resolution 1540, the 1540 Committee needs to refrain from overt criticism of UN member states or from naming and shaming practices (Interview N2, New York, April 2018). Since the 1540 Committee is not allowed to carry out its own country inspections and cannot rely on implementation reports by intermediary actors, the monitoring of the national implementation of Resolution 1540 is largely a box-ticking exercise of the formal adoption of legal arrangements by member states (Interview N3, New York, April 2018). In this context, some international organizations are also very reluctant to share relevant information, as they are bound by their own strict

confidentiality rules, most notably the IAEA (Andemicael, 2015, p. 65). Likewise, other international organizations are bound by the limits of their mandate. For example, in the case of the OPCW, '[r]equests for data on exports and imports of scheduled chemicals cannot include questions about controls on equipment or technology or technical expertise, or even about the system of licensing chemicals' (Gahlaut, 2019, p. 60). In short, collecting information in a systematic way has been a significant challenge.

### ***Regulatory Diffusion***

The final process performance indicator is the degree to which intermediary actors endorse Resolution 1540, adopt its provisions as their own or offer explicit support for the implementation of the resolution. Early on, international organizations have issued statements of support for the resolution or have encouraged its member states to implement it (Cupitt, 2012). Other institutions such as the OSCE, the Nuclear Suppliers Group, the Missile Technology Control Regime, the Zangger Committee and the Executive Secretariat of the Hague Code of Conduct against Ballistic Missile Proliferation have sent letters to the 1540 Resolution to pledge their support (United Nations Security Council, 2006a). The 2016 Nuclear Security Summit, the last of a series of four US-convened high-level international summits between 2010 and 2016 aimed at improving the global fight against nuclear terrorism, adopted even a concrete Action Plan in support of the implementation of Resolution 1540 (Nuclear Security Summit, 2016). Furthermore, 'Several relevant international organizations have integrated the objectives of resolution 1540 (2004) into their assistance efforts', as highlighted in a major UN report in 2011 (United Nations Security Council, 2011). These organizations include *inter alia* the IAEA, the Implementation Support Unit of the BTWC, the International Criminal Police Organization, the OPCW, the UNODC and the World Customs Organization (Kasprzyk, 2015, p. 46), i.e. all major international organizations of the international terrorism and the nuclear weapon, biological weapon and chemical weapon regimes. Examples in this regard include the IAEA's Nuclear Security Plans and its Nuclear Security Series of publications or UNODC's legal training, which includes a module on Resolution 1540 (UNODC, 2016). Within the WMD terrorism regime in a strict sense, the Global Partnership lists even the 'facilitation of the implementation of UNSCR 1540' as one of its top priorities (G8 Global Partnership, 2011). At the regional level, the EU has turned into a strong supporter of the implementation of Resolution 1540 (Grip, 2012). It has strongly endorsed the resolution,

supported its implementation, offered assistance to UN member states and made steadily increasing voluntary contributions in 2006, 2008, 2013 and 2017, totalling over four million Euro.<sup>5</sup> In summary, the provisions of Resolution 1540 have been endorsed, adopted and implemented by a wide variety of international organizations. In this sense, the process of orchestration has been effective. However, there is no evidence to suggest that this has been the direct result of active measures of the 1540 Committee. Rather, international organizations themselves have been eager to endorse the UN Security Council resolution for its own activities. For instance, in the case of the EU, Resolution 1540 fitted very well into the priorities of its own 2003 nonproliferation strategy based on the principle of ‘effective multilateralism’.

## **Conclusions**

As the emerging literature on regime complexes has shown during the last 15 years, regime complexes are a dominant feature of global governance and have significant policy implications (Alter and Raustiala, 2018). This article contributes to this body of literature by examining an important, but largely underresearched aspect of regime complexes: the management of regime complexes in high profile areas of international security. More specifically, it has analysed how the 1540 Committee, an ad hoc body of the UN Security Council, has orchestrated the large number of institutions of the so-called WMD terrorism regime complex to implement Security Council Resolution 1540 against WMD terrorism. The results offer two novel insights into the management of regime complexes and the performance of orchestration.

First, contrary to Dai’s (2015, p. 151) argument that orchestration should be substantially less common in matters of international security, this article has shown that the 1540 Committee has relied extensively on orchestration to implement Resolution 1540. Although Dai’s (2015, p. 153) assumption that international security organizations such as the UN Security Council are very reluctant to cooperate openly with nonstate actors has been corroborated by the findings in this article (see also Abbott et al., 2015, p. 23), it is important to take into consideration the availability of related international organizations at the global and regional level and, to a lesser extent, of certain nation states. Based on a novel overview of what has been called the WMD terrorism regime complex, this article has shown that the 1540 Committee has a large number of international institutions as potential intermediary actors at

its disposal. Given the institutional weakness of the 1540 Committee in terms of enforcement mechanisms, budget and human resources, the Committee has cooperated with intermediary actors from the very beginning of its existence. Furthermore, the focality of the Security Council in international peace and security has facilitated the willingness of the intermediary actors to cooperate with the 1540 Committee. In sum, this shows how the Security Council, a key institution in international security, has used orchestration to overcome its own structural weaknesses to deliver a high profile public good, i.e. the prevention of WMD terrorism. The extensive outreach work of similar Security Council bodies, in particular the Counter-Terrorism Committee, seem to confirm these findings, even though important differences remain between different Committees (Shirazyan, 2019). While this suggests that orchestration in the area of international security is not fundamentally different from other issue areas, further research on orchestration by the UN Security Council and on orchestration by other important security organizations such as the EU, the IAEA or the OPCW is necessary to determine how dominant orchestration is in matters of international security.

Second, the article has examined the performance of the process of orchestration. This has shed light on an aspect that is rarely addressed in the orchestration literature, i.e. performance, and on another aspect that has attracted scant attention in the literature on Resolution 1540, i.e. the process of its implementation. In order to achieve this, the article has examined the coordination of intermediary actors by the 1540 Committee; the exchange of information between the 1540 Committee and the intermediary actors; and the degree to which intermediary actors have adopted the provisions of Resolution 1540. It has shown that the endorsement of Resolution 1540 and its inclusion in the policies, guidelines and activities of international organizations is widespread, suggesting that international organizations are keen to work within the framework of a UN Security Council resolution. However, the direct collaboration between international organizations and the 1540 Committee has proven to be more challenging. In terms of information exchange, the collaboration has been relatively limited and has hardly supported the coherent implementation of Resolution 1540 by the 1540 Committee. Only with a clearer mandate from the Security Council to receive and analyse politically sensitive information on the relevant activities of international organizations will the 1540 Committee be able to make effective use of the available information. Even more importantly, the coordination of the implementation activities by intermediary actors has turned out to be largely ad hoc and lacked the systematic and coherent steering by the 1540 Committee. In other words, ad hoc orchestration needs to give way to strategic orchestration.

To this end, the 1540 Committee should dedicate more resources to identify different implementation priorities and to coordinate the activities of intermediary actors in a comprehensive way, including both international organizations and relevant nonstate actors. The next comprehensive review of Resolution 1540, which is due by 25 April 2021, offers a unique opportunity to address these different issues and to strengthen the resolution in view of a new mandate from 2021 on.

## Notes

<sup>1</sup> Legally, the CTBT is still not in force, but its key provisions have been observed by all states except North Korea for over 20 years.

<sup>2</sup> Semi-structured elite interviews were conducted with seven senior officials directly involved in the work of the 1540 Committee in New York (9-13 July 2018) and in Vienna (11 July 2018). Given the politically sensitive work of the Committee, all interviews were conducted under the Chatham House rule. In order to protect the sources and in line with GDPR rules, the interview notes have been pseudonymized and only the pseudonym is given here and all following interview references. Numerous former members of the Group of Experts have published their first-hand accounts of the work of the 1540 Committee, which are used as additional sources (Andemicael, 2015; Beck, 2015; Bosch, 2015; Bosch and van Ham, 2007; Cupitt, 2012; Kasprzyk, 2015; Kiessler, 2015; Palanque, 2015; Perkins, 2015). Apart from official documents and publications, another important primary source is the 1540 Compass, a semi-official journal, where practitioners exchange their views on the implementation of Resolution 1540.

<sup>3</sup> However, assistance-related cooperation between the 1540 Committee and other international organizations were only formally endorsed by the Security Council in Resolution 1977 (2011).

<sup>4</sup> International Civil Aviation Organization; Arab Maghreb Union; Collective Security Treaty Organization; Eurasian Economic Community; Shanghai Cooperation Organization; Organisation internationale de la Francophonie.

<sup>5</sup> See Council Joint Action 2006/419/CFSP; Council Joint Action 2008/368/CFSP; Council Decision 2013/391/CFSP; and Council Decision (CFSP) 2017/809.

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