

EDITORIAL

# The Hawija airstrike: Reverberating effects on civilians under international humanitarian law

Machiko Kanetake\*

Utrecht University School of Law, Janskerkhof 3, 3512 BK Utrecht, the Netherlands  
Email: [m.kanetake@uu.nl](mailto:m.kanetake@uu.nl)

## 1. Introduction

In the late evening of 13 April 2022, de Balie, a theatre in Amsterdam, was packed with an audience attending a public event entitled: *The Effects of the Dutch Airstrike on Hawija*. Hawija, an Iraqi city located 210 km north of Baghdad, was the target of an airstrike on 2–3 June 2015. The audience in the Amsterdam theatre was informed of some of the traceable points of continuation between the attack in 2015 and the state of affairs in Hawija in 2021 and 2022. The airstrike was one of 34,000 airstrikes conducted as part of the US-led military operation against the Islamic State of Iraq and Syria (ISIS).<sup>1</sup> The Amsterdam event featured the research report *After the Strike*<sup>2</sup> as well as the Dutch documentary film *When the Bomb Falls*,<sup>3</sup> which tracked the direct and indirect effects of the airstrike on civilian lives and set the stage for panel discussions. Throughout the public event, the audience was invited to see a glimpse of the ‘long-term, interdependent, [and] complex layers of destruction’<sup>4</sup> that the attack of 2015 has left.

The city of Hawija is situated in the broader district of Hawija, which in turn forms part of Kirkuk Governorate in northern Iraq. The district of Hawija was controlled by ISIS between June 2014 and October 2017. In September 2014, the US-led coalition forces began their military operations against ISIS in Iraq and Syria, on the basis of the territorial state’s consent (for operations in Iraq) and the right of self-defence (for operations in Syria) against the non-state attacks.<sup>5</sup> The Dutch airstrike of 2–3 June 2015 in Hawija was part of the US-led military campaign, which has been described as a ‘classic example’ of remote warfare.<sup>6</sup> This means that military operations are conducted primarily through drones and airstrikes, instead of directly sending ground troops. Such remote strategies, although presented as being precise and technologically advanced,

---

\*Associate Professor, School of Law, Utrecht University. This editorial was inspired by the Intimacies of Remote Warfare project within Utrecht University’s Contesting Governance research platform. I would like to thank Lauren Gould, Katharine Fortin, and Ingo Venzke for advice on earlier drafts.

<sup>1</sup>The Islamic State is also referred to as the Islamic State of Iraq and al-Sham (ISIS), the Islamic State of Iraq and the Levant (ISIL) or Daesh.

<sup>2</sup>S. Azeem et al., *After the Strike: Exposing the Civilian Harm Effects of the 2015 Dutch Airstrike on Hawija* (2022).

<sup>3</sup>D. Ghosen, ‘Als de bom valt: Danny Ghosen in Irak’ (When the Bomb Falls: Danny Ghosen in Iraq), VPRO documentary film, 2022, available at [www.vpro.nl/programmas/als-de-bom-valt.html](http://www.vpro.nl/programmas/als-de-bom-valt.html).

<sup>4</sup>Azeem et al., *supra* note 2, at 110.

<sup>5</sup>On the analysis of the justification of the use of force see, in particular, T. Ruys and L. Ferro, ‘Divergent Views on the Content and Relevance of the Jus ad Bellum in Europe and the United States?: The Case of the US-Led Military Coalition against “Islamic State”’, in C. Giorgetti and G. Verdirame (eds.), *Whither the West?: International Law in Europe and the United States* (2021), at 231.

<sup>6</sup>Azeem et al., *supra* note 2, at 20–1.

paradoxically rely upon imprecision and ignorance about the local effect of strikes to sustain the legitimacy of past, present, and future remote wars.<sup>7</sup>

In tracing the consequences of remote warfare, this editorial will first draw upon the report *After the Strike* concerning the civilian effects of the Dutch airstrike on Hawija. The purpose here is to illustrate some fractions of the so-called ‘reverberating’ effects of the airstrike in urban areas on the civilian population. The editorial then addresses, in general terms, how international humanitarian law (IHL) and its epistemic communities can engage with the reverberating effects of airstrikes in urban areas on civilians. This editorial does not aim at analysing the legality of the Hawija airstrike itself under IHL.<sup>8</sup> Instead, the editorial aims to highlight how past debates – such as those at the Amsterdam theatre – concerning civilian harm are likely to shape the present and future normative content of IHL, as an invitation to the reader to be part of the norm-setting endeavour.

## 2. The June 2015 airstrike on Hawija

### 2.1 The attack and its direct effects

At 12 o’clock at night on 2–3 June 2015, two F-16 Dutch fighter jets dropped GPS-guided missiles.<sup>9</sup> The missiles targeted a sequence of three buildings in the industrial neighbourhood of Hawija, which was under the control of ISIS between June 2014 and October 2017. The strike was based upon information from the US, which had identified the buildings as an ISIS bomb factory. The munitions dropped by the Dutch fighter jets made contact with an explosive substance in the factory and led to a large secondary explosion. The F-16 pilots immediately reported to the Dutch Ministry of Defence that the strike destroyed a whole district.<sup>10</sup>

What matters for the sake of this editorial is that the airstrike has brought very different consequences to two societal segments. On the one hand, the airstrike of 2–3 June 2015 and the secondary explosion devastated the city of Hawija. The scale of direct effects on civilians (death, physical or psychological injury, damage to property) remains unsettled, as with many other instances of warfare. The US’ Civilian Casualty Assessment reported 70 civilian casualties.<sup>11</sup> According to the report *After the Strike*, the attack resulted in at least 85 civilian casualties, and damaged 6,000 homes and 1,200 businesses and shops.<sup>12</sup> The figure of 85 was based upon the information given by survivors who were in Hawija during the investigation conducted in 2021. The figure of fatalities should therefore be higher than 85, according to the authors of the report. For instance, it is difficult to trace the identity of casualties among internally displaced persons who had fled, before the airstrike, from other ISIS-controlled areas to Hawija.<sup>13</sup> The attack and secondary explosion also damaged the water pipelines, destroyed Hawija’s electricity sub-station, the civil defence department’s emergency response vehicles, and six schools.<sup>14</sup> Psychological harm was described as an ‘overwhelming problem’ for Hawija, in which children appeared more affected than older generations.<sup>15</sup>

<sup>7</sup>L. Gould and N. Stel, ‘Strategic Ignorance and the Legitimation of Remote Warfare: The Hawija Bombardments’, (2022) 53 *Security Dialogue*, at 57.

<sup>8</sup>As for the classification of conflicts and the geographical scope of the application of IHL, see V. Koutroulis, ‘The Fight Against the Islamic State and Jus in Bello’, (2016) 29 *Leiden Journal of International Law* 827.

<sup>9</sup>The description of the strike in this paragraph is based upon Azeem et al., *supra* note 2, at 14–21.

<sup>10</sup>*Ibid.*, at 17.

<sup>11</sup>The document concerning the 2 June 2015 strike in Hawija is available as part of the *New York Times’* civilian casualty files: A. Khan et al., ‘The Civilian Casualty Files’, *New York Times*, 18 December 2021, available at [www.nytimes.com/interactive/2021/us/civilian-casualty-files.html](https://www.nytimes.com/interactive/2021/us/civilian-casualty-files.html).

<sup>12</sup>Azeem et al., *supra* note 2, at 60–5.

<sup>13</sup>*Ibid.*, at 62.

<sup>14</sup>*Ibid.*, at 68–9.

<sup>15</sup>*Ibid.*, at 70–1.

On the other hand, the tale of civilian casualties as a result of the Dutch airstrike was almost unknowable to the Dutch constituency until 18 October 2019 – namely, for more than four years. On that day, two local news organizations released the findings of their investigation into the civilian casualties of the Dutch airstrike in Hawija.<sup>16</sup> This was accompanied by other related reports that shed light on the civilian impact of airstrikes.<sup>17</sup> The Dutch Defence minister argued that the extent of secondary explosion was unexpected. At the same time, the media coverage and NGO campaigns raised public attention, which led to parliamentary debates and certain governmental initiatives to foster transparency about civilian casualties in connection to future Dutch military operations.<sup>18</sup>

## 2.2 Reverberating effects on civilians

On top of the aforementioned direct effects, what was highlighted in the report *After the Strike* was a series of so-called ‘reverberating’ effects on civilians. Such effects can be understood as those ‘that are not directly or immediately caused by attack, but are nonetheless a consequence of it’.<sup>19</sup> On the basis of documentary studies, on-site visits, and interviews conducted from February to November 2021, the report exposes many interconnected layers of civilian harm.

Before ISIS took over the area, the district of Hawija was an agricultural hub and hosted many businesses with the governmental infrastructure (e.g., an electricity sub-station, a fuel station, governmental buildings), 18 health care centres, and in the city of Hawija, 42 primary and secondary schools.<sup>20</sup> ISIS’ control of Hawija limited the functioning of these industrial and public facilities. Many doctors had to flee Hawija, and, by January 2015, electricity was limited and ISIS changed the teachers and curriculum to teach students of ‘weapons, bombs and how to kill’, as one of the interviewees put.<sup>21</sup> The report concluded, however, that ‘the industrial neighbourhood was still functioning and civilians could go about their businesses’ even under ISIS rule.<sup>22</sup> Cities such as Hawija are vulnerable as they carry interconnected layers of infrastructure, including water and sewage lines and healthcare facilities.<sup>23</sup> Cities’ dependency on infrastructure, accompanied by the density of population, can magnify not only an immediate physical impact of an airstrike (such as death and physical injury), but also many forms of indirect impacts.

A series of reverberating effects unique to urban settings are indeed recorded by the report. First of all, water and electricity became unavailable to the Hawija residents, as the electricity department and circuit were damaged by the explosion, which then stalled the provision of water.<sup>24</sup> Second, the airstrike on the industrial neighbourhood destroyed or damaged workplaces,

<sup>16</sup>E.g., J. Schipper and K. Versteegh, ‘De Nederlandse “precisiebom” op een wapendepot van IS’ (The Dutch ‘precision bomb’ on an ISIS weapon depot), NRC, 2019, available at [www.nrc.nl/nieuws/2019/10/18/de-nederlandse-precisiebom-op-een-wapendepot-van-is-a3977113](http://www.nrc.nl/nieuws/2019/10/18/de-nederlandse-precisiebom-op-een-wapendepot-van-is-a3977113); B. Meindertma and L. Runderkamp, ‘Nederlandse luchtaanval in Irak veroorzaakte zeker zeventig burgerdoden’ (Dutch airstrike in Iraq caused at least seventy civilian deaths), NOS, 18 October 2019, available at [www.nos.nl/artikel/2306652-nederlandse-luchtaanval-in-irak-veroorzaakte-zeker-zeventig-burgerdoden](http://www.nos.nl/artikel/2306652-nederlandse-luchtaanval-in-irak-veroorzaakte-zeker-zeventig-burgerdoden).

<sup>17</sup>E.g., R. Boer, L. Treffers and C. Woods, ‘Seeing Through the Rubble: The Civilian Impact of the Use of Explosive Weapons in the Fight against ISIS’, *Airwars and PAX*, 26 October 2020, available at [paxforpeace.nl/what-we-do/publications/seeing-through-the-rubble](http://paxforpeace.nl/what-we-do/publications/seeing-through-the-rubble).

<sup>18</sup>See F. Colli and Y. Reykers, ‘Enemies or Allies? How NGOs Can Push the Military Towards Transparency Around the Use of Force’, (2022) *European Journal of International Security*, at 1.

<sup>19</sup>ICRC, ‘Report: Explosive Weapons in Populated Areas Humanitarian, Legal, Technical and Military Aspects (Expert Meeting, Chavannes-De-Bogis, Switzerland 24 to 25 February 2015)’, 12 June 2020, available at [www.icrc.org/en/publication/4244-explosive-weapons-populated-areas-expert-meeting](http://www.icrc.org/en/publication/4244-explosive-weapons-populated-areas-expert-meeting).

<sup>20</sup>Azeem et al., *supra* note 2, at 48–9.

<sup>21</sup>*Ibid.*, at 50–2.

<sup>22</sup>*Ibid.*, at 52.

<sup>23</sup>*Ibid.*, at 24.

<sup>24</sup>*Ibid.*, at 88.

factories and businesses, which led to the loss of livelihood, high rates of unemployment, a rise in food prices and medicines, and debts to be paid off. The loss of a family breadwinner narrowed down any options for survival, and economic harms have led to an increase in the use of child labour.<sup>25</sup> While Hawija used to be an agricultural hub in Iraq, the damages from the airstrike reduced the supply of irrigated water, shrank the production of agricultural products, and led to the loss of agriculture-related jobs, such as agricultural machinery repair.<sup>26</sup>

Third, displacement was also one of the knock-on effects of the attack. While many people fled from the control of the district by ISIS, which weakened the capacities of the city and district, the June 2015 airstrike led to further displacement. People have fled for many reasons, including the loss of their livelihoods, the lack of healthcare, and attack-related trauma.<sup>27</sup> Displacement has led to further harm for those who fled, such as the lack of adequate shelter, psychological burdens, and sexual and gender-based violence.<sup>28</sup>

Fourth, healthcare, which was already limited by ISIS' occupation, was significantly affected by the airstrike and related displacement. As the Hawija healthcare centre and the Hawija General Hospital were damaged, and hospital staff have fled the area, people died, not only from the airstrike and secondary explosion themselves, but also from the absence of immediate and adequate medical treatment as a result of the attack and explosion.<sup>29</sup> One of the interviewees, who lost as many as seven members of his family, observed that two or three members of his family would have survived if there had been proper medical supplies in Hawija.<sup>30</sup>

Finally, education is another area affected. Those children who sustained a physical injury or psychological trauma are prevented from returning to school. One of the interviewees shared his desperation that his son no longer went to school, due to a state of shock as a result of the airstrike and explosion. Other children were unable to go back to school due to the lack of money to finance basic school expenses or because they had to work to secure the family income.<sup>31</sup> Even after the end of ISIS' control, many teachers did not return to Hawija because their houses were damaged by the airstrike and explosion.<sup>32</sup>

Overall, as illustrated by these segments, various forms of reverberating effects are intertwined with one another.<sup>33</sup> Consider the death of a breadwinner, which leads to the loss of income and may make it difficult to seek appropriate medical treatment for those injured; the lack of medical care can then lead to additional civilian deaths and injuries, which further limits incomes, deprives children of educational opportunities, and creates enormous psychological burdens. As the report stressed, it is critical to understand 'how different forms of harm intersect and reinforce each other'.<sup>34</sup> Likewise, it is important to assess reverberating effects against the underlying conditions of Hawija, which was still under ISIS' rule at that time. The reverberating effects of the attack and explosion in Hawija were 'amplified', precisely because civilians had to face and address the knock-on effects while being subject to ISIS' control.<sup>35</sup> With a series of reverberating effects of the airstrike and explosion, the industrial neighbourhood was still in ruins six years after the airstrike.

---

<sup>25</sup>*Ibid.*, at 81–5.

<sup>26</sup>*Ibid.*, at 85.

<sup>27</sup>*Ibid.*, at 76–8.

<sup>28</sup>*Ibid.*, at 80–1.

<sup>29</sup>*Ibid.*, at 86–7.

<sup>30</sup>*Ibid.*, at 87.

<sup>31</sup>*Ibid.*, at 91.

<sup>32</sup>*Ibid.*, at 90.

<sup>33</sup>*Ibid.*, at 91.

<sup>34</sup>*Ibid.*

<sup>35</sup>*Ibid.*, at 92.

### 3. Reverberating effects in IHL

#### 3.1 An obligation to take into account reverberating effects

Beyond the context of the Hawija attack, how does IHL address the reverberating effects of air-strikes in urban areas on civilians? The reverberating effects of explosive weapons in urban areas have been discussed by many practitioners and scholars. For instance, during an ICRC-led expert meeting in 2015, experts pointed out that the use of explosive weapons in populated areas can significantly limit health care facilities when they are most needed in the aftermath of an attack; or if the energy supply is cut, this further affects the water supply service and the treatment of wastewater.<sup>36</sup>

One of the central questions here is to what extent the principle of proportionality, a fundamental principle of IHL, requires commanders to consider the reverberating effects of an attack in determining whether the attack is disproportionate. This is a critical issue, in view of proportionality's connection to precautionary requirements and also to military necessity. The assessment of proportionality comes with the principle of precaution, which entails, for example, refraining from launching an attack that may be expected to violate the rule on proportionality.<sup>37</sup> It must also be noted that military necessity cannot be invoked independently under IHL to justify an attack that violates the principle of proportionality.<sup>38</sup> Military necessity 'requires proportionality assessments' when an attack is expected to have effects on civilians or civilian objects.<sup>39</sup>

The principle of proportionality prohibits an attack 'which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated'.<sup>40</sup> According to Robinson and Nohle, several elements of treaty interpretation can be mobilized to support the conclusion that the principles of proportionality and precautions in attack include an obligation to take into account the reverberating effects of an attack.<sup>41</sup> For example, the definition of disproportionate attacks attaches the phrase 'concrete and direct' only to military advantage, and not to the incidental harms to civilians and civilian objects.<sup>42</sup> Some state practices already incorporate commanders' obligation to consider the reverberating effects of an attack.<sup>43</sup>

The International Law Association's (ILA) report of 2017 also supports the inclusion of reverberating effects in the calculation of incidental civilian harms. The report was prepared by the ILA Study Group on the Conduct of Hostilities in the 21<sup>st</sup> Century, which situated reasonable foreseeability at the centre of deciding what ought to be considered. According to the Study Group, 'foreseeability is the relevant criterion' and 'there is an obligation to take into account all indirect harm that can reasonably be foreseen by a reasonably well informed person'.<sup>44</sup> In turn, this means that it is not necessary to take into account 'unforeseeable' reverberating effects.<sup>45</sup> The Study

<sup>36</sup>ICRC, *supra* note 19, at 14–15.

<sup>37</sup>Additional Protocol to the Geneva Conventions of 12 August 1949 and relating to the Protection of Victims of International Armed Conflicts (Additional Protocol I), 1125 UNTS 3, Art. 57(2)(a)(iii).

<sup>38</sup>M. Cotter, 'Military Necessity, Proportionality and Dual-Use Objects at the ICTY: A Close Reading of the Plić et al. Proceedings on the Destruction of the Old Bridge of Mostar', (2018) 23 *Journal of Conflict and Security Law*, at 283, 288.

<sup>39</sup>*Ibid.*, at 286.

<sup>40</sup>Additional Protocol I, *supra* note 37, Arts. 51(5)(b), 57(2)(a)(iii).

<sup>41</sup>I. Robinson and E. Nohle, 'Proportionality and Precautions in Attack: The Reverberating Effects of Using Explosive Weapons in Populated Areas', (2016) 98 *International Review of the Red Cross*, at 107, 113–16.

<sup>42</sup>*Ibid.*, at 113; Cotter, *supra* note 38, at 300.

<sup>43</sup>Robinson and Nohle, *supra* note 41, at 109, 115.

<sup>44</sup>International Law Association Study Group on the Conduct of Hostilities in the 21<sup>st</sup> Century, 'The Conduct of Hostilities and International Humanitarian Law: Challenges of 21<sup>st</sup> Century Warfare, Final Report', (2017) *International Law Studies*, at 322, 353.

<sup>45</sup>*Ibid.*

Group made it clear that there are no temporal limits in anticipating indirect effects on the civilian population.<sup>46</sup>

A rather restrictive position is taken by the US, although it has not ratified Additional Protocol I. According to the US Department of Defense Law of War Manual (DoD Manual) as of December 2016, the expected loss of civilian life, injury to civilians, and damage to civilian objects are understood as ‘such immediate or direct harms foreseeably resulting from the attack’.<sup>47</sup> According to the DoD Manual, remote harms do not need to be considered in assessing the proportionality of an attack.<sup>48</sup> The US DoD justified the exclusion of remote harms partly on the basis of the ‘difficulty in accurately predicting the myriad of remote harms’ from an attack.<sup>49</sup> The example included in the DoD Manual for this purpose is intriguing and worth quoting:<sup>50</sup>

For example, if the destruction of a power plant would be expected to cause the loss of civilian life or injury to civilians very soon after the attack due to the loss of power at a connected hospital, then such harm should be considered in assessing whether an attack is expected to cause excessive harm. On the other hand, the attacker would not be required to consider the economic harm that the death of an enemy combatant would cause to his or her family, or the loss of jobs due to the destruction of a tank factory. Similarly . . . the attacker would not be required to consider the possibility that a munition might not detonate as intended and might injure civilians much later after the attack. This is due to the *difficulty in assessing such risks* and the responsibility of the party controlling the territory and the civilian population to take steps with regard to the protection of the civilian population from unexploded ordnance.

As Cotter points out, it is not easy to draw from this example any coherent logic in approving one scenario and disapproving the others.<sup>51</sup> The scenarios included in the aforementioned example cannot be systematically categorized in terms of the immediacy of harms, the types of harm, or the likelihood of local support to remedy the harms. The US DoD invoked the ‘difficulty in assessing such risks’ as one of the reasons for not including certain effects of the attack in the calculation of harms.<sup>52</sup> However, such a difficulty in risk assessment is subject to constant change and should depend on the availability of information and the accumulation of data derived from the past instances of warfare. Overall, regardless of whether one follows the ILA’s interpretation or the US DoD’s instruction, one of the central points of contention is how ‘reasonable’ (according to the ILA) or how ‘difficult’ (according to the DoD) it is to foresee the reverberating effects of an attack.

### 3.2 Building the normative content of foreseeability

The IHL debates surrounding the locus of reverberating effects then remind us of the connection between past, present, and future in regulating the civilian effects of warfare. According to the ICRC, reverberating effects are indeed ‘reasonably foreseeable’ if they are ‘based on knowledge gained and lessons learnt from past experience of use of explosive weapons in populated areas’.<sup>53</sup> As Robinson and Nohle articulated, the reasonable foreseeability of reverberating effects is based upon ‘past practice and empirical research, lessons learned and publicly available information’.<sup>54</sup>

<sup>46</sup>*Ibid.*, at 354.

<sup>47</sup>US Department of Defense, *Law of War Manual* (June 2015, updated December 2016) (Office of General Counsel, Department of Defense), at 261.

<sup>48</sup>*Ibid.*

<sup>49</sup>*Ibid.*, at 261.

<sup>50</sup>*Ibid.*, at 262 (original citations omitted, emphasis added). See Cotter, *supra* note 38, at 298–9.

<sup>51</sup>Cotter, *Ibid.*, at 299.

<sup>52</sup>DoD Manual, *supra* note 47, at 262.

<sup>53</sup>ICRC, *supra* note 19, at 5.

<sup>54</sup>Robinson and Nohle, *supra* note 41, at 145.

In this sense, governments should accumulate and review their knowledge about the patterns of reverberating effects from past military operations in order to assess civilian harm. In an effort to remedy governmental reluctance, a group of NGOs have been active in documenting the civilian effects of military operations.<sup>55</sup> For example, the Centre for Civilians in Conflict (CIVIC), established in 2003 and Airwars, founded in 2014, analyse information regarding civilian harm and campaign for more transparency in the effects of warfare on civilians. In fact, Airwars' data provided a basis for the investigation conducted by the Dutch news organizations about the Hawija attack.<sup>56</sup>

Zeitoun and Talhami's studies suggest that the accumulation of knowledge should render reverberating effects more foreseeable over time.<sup>57</sup> According to Zeitoun and Talhami, the reverberating effects of explosive weapons on urban services can be categorized and limited according to the types of infrastructure, the extent of damage to it, the spatial distribution of the reverberations, and the time required to restore the services.<sup>58</sup> It is also important to consider 'baseline service resilience'. The reverberating effects of explosive weapons on urban services can be 'amplified' if the city in question already suffered from protracted conflict and lacked necessary resilience to respond to and recover from the effects of the explosion.<sup>59</sup>

Moreover, technological progress should allow not only the development of weapons and other means and methods of warfare but also the mechanisms to identify the reverberating effects of military operations and assess some patterns therein. As Wise points out, while the indirect effects of war have long been neglected, '[t]echnical progress permits more capable documentation, revealing a reality that was long sensed but rarely quantified'.<sup>60</sup> Technical innovation, which improved or at least aimed to improve precision in warfare, 'has also altered our understanding of the human impact of war and, significantly, the moral requirements for its mitigation in the real world'.<sup>61</sup> The efforts to document and analyse civilian harm – both governmental and non-governmental – should thus be understood as their active participation to a continuous process of altering, not only moral requirements, but also the normative content of the principle of proportionality under IHL with regard to the assessment of incidental civilian harm.

#### 4. Conclusion

During the panel discussions at the Amsterdam theatre in April 2022, a *New York Times* journalist, known for her investigative work on the civilian effects of air wars in Iraq,<sup>62</sup> was appreciative of the extent to which the Dutch media had invested its energy in covering the Hawija air strike, in contrast to the comparable reception by the US media about the civilian impact of anti-ISIS airstrikes. Her diplomatic appraisal of the Dutch media signalled a great deal of difficulty that journalists and their collaborators face, not only in obtaining and verifying information about civilian harm in the aftermath of military operations, but also in mobilizing public attention to the civilian effects of airstrikes, depending on who conducted the strikes, where, and against whom. While the theatre in Amsterdam was packed with an audience to listen to the panellists'

<sup>55</sup>Colli and Reykers, *supra* note 18, at 5–6.

<sup>56</sup>*Ibid.*, 15, 17.

<sup>57</sup>M. Zeitoun and M. Talhami, 'The Impact of Explosive Weapons on Urban Services: Direct and Reverberating Effects Across Space and Time', (2016) 98 *International Review of the Red Cross*, at 53; M. Talhami and M. Zeitoun, 'The Impact of Attacks on Urban Services II: Reverberating Effects of Damage to Water and Wastewater Systems on Infectious Disease', (2020) 102 *International Review of the Red Cross*, at 1293.

<sup>58</sup>Zeitoun and Talhami (2016), *ibid.*

<sup>59</sup>*Ibid.*, at 64.

<sup>60</sup>P. H. Wise, 'The Epidemiologic Challenge to the Conduct of Just War: Confronting Indirect Civilian Casualties of War', (2017) 146 *Daedalus*, at 139.

<sup>61</sup>*Ibid.*

<sup>62</sup>Khan, *supra*, note 11.

accounts of the Dutch airstrike's civilian effects, the fact remains that it took more than four years after the strike for the Dutch media to inform the wider public of the attack and its aftermath. During those years, not only those who were immediately killed or injured, but also those who lived among the dead and injured, were overlooked in public and parliamentary debates about the war against ISIS and its effects on civilian harms.

In this regard, it would be good to remember that the public attention can lead to certain changes to the treatment of civilian casualties for future military deployment. In the Netherlands, on 7 April 2022, the Dutch Minister announced several steps to be taken to revise internal procedures and increase transparency regarding the assessment of civilian casualties prior to, and during and after, Dutch military deployment.<sup>63</sup> In announcing such steps, the Minister referred to the consortium of civil society and academic institutions – including the authors of the report *After the Strike* – with whom the Ministry had a series of consultations before proposing policy changes.

Overall, this editorial was written with the aim of highlighting how the past debates concerning civilian harm would shape the present and future normative content of IHL. As reiterated by Robinson and Nohle, the reasonable foreseeability of reverberating effects is based upon 'past practice and empirical research, lessons learned and publicly available information'.<sup>64</sup> The content of reasonably foreseeable effects should continue to develop over time, by accumulating the knowledge of different types of reverberating effects, conditions in which certain effects are likely to arise, and interactions among various reverberating effects. Such accumulation of knowledge would alter the content of reasonable foreseeability. Governmental institutions, NGOs, journalists, researchers in various disciplines, and the wider public can take part in the norm-setting endeavour by seeking and accumulating information on civilian harm – as the audience in the Amsterdam theatre has done, and hopefully continues to do so.

---

<sup>63</sup>Minister of Defence, 'Nederlandse deelname aan vredesmissies (Dutch Participation to Peace Missions)', (29 521, No. 442) (2022).

<sup>64</sup>Robinson and Nohle, *supra* note 41, at 145.