V. Casualty recording in armed conflict: methods and normative issues

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Introduction

Press and media coverage of any war almost always reports the number killed as soon as a figure is obtainable. Although accounting for their own military deaths has been a long-standing practice of states, until recently close attention to civilian deaths, on all sides of a conflict, has been either rare or inconsistent. As the nature of conflict has evolved since the end of the 20th century from predominantly international conflicts to intrastate conflicts, this has repeatedly been said to coincide with an increasingly disproportionate toll on the civilian populations involved. The true extent of this problem, however, is not known. Nonetheless, the international community has emphasized the importance of the protection of civilians as a central tenet of both military and peacekeeping operations. Detailed information on civilian deaths is a prerequisite for ensuring that such protection is provided.

Both the general public and policymakers are demanding accurate data on casualties among both combatants and civilians, as illustrated by the discussions on efforts to include indicators to measure peace in the Sustainable Development Goals (SDGs). However, the level of understanding of how...
Casualty data is collected and aggregated remains poor, which frequently prevents it from being used or discussed in an appropriate way. When a casualty figure is issued—whether by a governmental agency or a civil society organization—its value is mostly discussed in the light of the political position of the source, rather than the application of a critically informed understanding of the way the data was collected and its possible limitations.

In addition, the distinction between casualty estimation and casualty recording is commonly misunderstood. Casualty estimation involves extrapolating from known data, usually by means of a limited sample of actual recorded casualties, to the total population. Casualty recording, by contrast, collects all the available casualty data using a variety of means but never goes beyond what is known. Each can produce figures but, strictly speaking, only recording can lead to a ‘count’. Recording is mainly limited by the reach and breadth of its sources, and estimation by the size and representativeness of its sample.

These distinct approaches and their uses are explored below. It should be noted, however, that while casualty estimation can only ever aim for—and its best efforts be expressed as—a number, that is how many may have been killed, the end towards which casualty recording strives is precise and definite knowledge of who was killed. In addition, while the numbers produced by estimation are by their nature uncertain—an uncertainty usually expressed as a 95 per cent confidence interval that is rarely quoted—casualty recording is wholly concerned with documenting those which have occurred and not with producing a number of deaths that might have occurred.

**Casualty recording**

Casualty recording is an umbrella concept that covers the work done by those who systematically record detailed information about deaths from armed conflict in ways that aim for comprehensiveness and, unless it is unsafe to do so, make such information public. This can centre on the specific incidents in which deaths were caused or the individuals killed, and be collected, collated, organized and published by a wide variety of means. The generally continuous nature of casualty recording, which is undertaken and updated even while conflicts unfold and increase their human toll, means that its data is not a ‘one-off snapshot’ or vulnerable to the loss of data due to fading memories. In addition, because it incorporates official reports and eyewitness accounts alongside the testimony of relatives, casualty recording is often reported and structured on an incident-by-incident basis, specifying the time, date and place of the incident and the weapons used, along with

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armed conflict data trends

the numbers killed and injured. In this respect, it can offer more complete information about specific lethal incidents than is generally available solely through the testimony of relatives, who were often not eye-witnesses and whose accounts are frequently at a significant distance in time and space from the events to which they refer.

However sourced, it is these details in the information collected along with the count of deaths that allow casualty records to be put to additional uses beyond informing policy evaluation and conflict analysis. These include (a) assisting humanitarian response planning by informing the ongoing assessment of a conflict environment by humanitarian responders; (b) contributing to efforts by the state to compensate the families of victims after the conflict has ceased; (c) forming the basis for accountability processes, in particular criminal prosecutions and truth commissions; and (d) generally supporting the families of victims by helping to end the uncertainty about the fate of their loved ones, and giving them recognition through efforts at memorialization.  

One particularly significant outcome of recent casualty recording efforts has been the identification of systematic patterns of harm to civilians that result from the use of specific weapons in specific circumstances. A number of casualty recording efforts have now conclusively demonstrated that the use of explosive weapons in populated areas harms civilians disproportionately. This data has directly informed international efforts to promote abstention from the use of explosive weapons in such contexts.

**Statistical estimation**

The most commonly used statistical estimation methods are household or sample surveys, and multiple systems estimation (MSE). Household surveys rely on the selection of a random sample of the population who are interviewed by researchers to determine the percentage of persons killed within these households. The number obtained from the sample is taken as representative and extrapolated to the whole population. A survey provides a one-off snapshot of estimated deaths up to the time when the survey was conducted. This method comes with a margin of error which can be quite high. While many studies can be classified under the household survey umbrella, each must be evaluated according to the specific methodology

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used to arrive at the final number, taking account, for example, of the way the sample was selected or transparency over the interview process.

MSE is a methodology derived from ecological studies. It depends on pre-existing datasets or lists created by several casualty-recording organizations that record deaths on an individual basis, but seeks to estimate an additional number of deaths not included on these lists. In order to do this, the datasets are compared to identify the level of matching between them. A high level of matching across the lists is taken to indicate that most deaths have been captured. If the level of matching between the lists is low, however, this is interpreted as an indication of a large number of unrecorded deaths. Generally speaking, the method relies on at least three such lists to identify and compensate for biases, dependencies and other complicating factors that would affect their usefulness as a means of estimating unrecorded deaths.

Arriving at a number for deaths in the 1998–99 Kosovo War

Although casualty recording and statistical estimates are two distinct approaches, the results yielded from statistical estimates are also important and can often be complementary to casualty recording work. The two methods can also reinforce each other. A good example of this is the work done to determine the number of deaths in the 1998–99 Kosovo War. During the conflict and its aftermath, the Humanitarian Law Centre, Kosovo (HLC-K) documented the killings and disappearances of Albanians and Serbs. This work culminated in the publication of the Kosovo Memory Book (KMB) in 2011.\(^9\) The KMB lists the name, date of birth, address and occupation, as well as any other family information—such as the number of children and combat status, when known—of all those who died in the conflict. Each name is accompanied by a short paragraph tracing the story of that person and the circumstances of their death. The HLC-K documented the death or disappearance of 13,535 people. This number is consistent with the estimates derived from a household survey and an MSE.\(^10\) A review of the KMB database by two experts in statistics, using a method akin to an MSE, concluded that the KMB was sound and virtually comprehensive.\(^11\) All three methods yielded similar results, thereby reinforcing each other. The main difference between them is the questions they answer. While the household survey set out to estimate the number of casualties in the war, HLC-K worked to iden-


\(^11\) ‘Virtually’ as it is never possible to be completely sure someone was not missed in the process. See Krüger and Ball (note 10), p. 59. The review was carried out by Professor Michael Spagat in 2014. Spagat, M., *A Triumph of Remembering: Kosovo Memory Book* (Royal Holloway, University of London: London, Dec. 2014), see also <http://www.kosovomemorybook.org/?page_id=4877&lang=de>.
tify those who had died in an effort to contribute to an important post-conflict dialogue and foster reconciliation, as well as to memorialize the dead and generally contribute to efforts at reconstruction in a post-war society.

In other cases, statistical and recording studies have yielded different and initially hard-to-reconcile results, resulting in attendant confusion in the public discourse. However, such differences do not reflect any inherent superiority of one method over another, and the resolution of such differences can often be achieved through detailed attention to the specific methodological details of the studies in question and uncovering potential sample biases or errors in inference. This critical endeavour can be productive when it yields new work informed by the lessons learned, which ideally reconcile apparently contradictory findings. In this respect the heated debate over the number of Iraqis killed since the start of the 2003 Iraq War has been instructive, and there is a general consensus in the field now that the best studies, either survey-based estimation or casualty recording, are consistent with one another. The small minority of outlier survey studies that have produced casualty estimates that are orders of magnitude greater than the majority of studies—and have engendered most of the controversy—can best be explained by methodological or interpretational difficulties in those outliers.\footnote{Spagat, M., ‘Mainstreaming an outlier: the quest to corroborate the second \textit{Lancet} survey of mortality in Iraq’, \textit{Defence and Peace Economics}, vol. 22, no. 3 (June 2011), pp. 299–316.} Thus, even in such apparently controversial cases, ultimately statistical and recording approaches have been shown to be consistent with, and supportive of, one another. The remainder of this section provides a more detailed overview of casualty recording. It outlines the different methods used in the field and current efforts by practitioners to establish basic requirements for casualty recording, which are intended to harmonize practice worldwide. Second, it analyses the prospects for establishing casualty recording as an international norm, by considering how it relates to many issues that are high on the international agenda in relation to peace and conflict, and discusses whether there is already a legal obligation on states to undertake casualty recording.

\section*{What is casualty recording and how is it done?}

\textit{Overview of the field}

Casualty recording is a practice that can be undertaken either during a conflict or in its aftermath, depending on the resources available to its practitioners and the level of access to the events, those who witnessed them and their outcomes, such as mass graves. Deaths may be recorded at the incident or the individual level, or both. Recording at the individual level, including by name, potentially provides the highest level of detail but is more difficult
to undertake during conflict. Consequently, the most inclusive records are almost always obtained over a period after the end of fighting. This period can sometimes extend to decades. One exception to this is where the conflict is of relatively low or sporadic intensity and limited duration, such as the more recent recording efforts in Israel and Palestine. Incident-level data, which usually includes information about the weapons used and the parties to the conflict, may provide greater detail of the nature of the violence, and do so in a consistent and timely manner.

Given the range of environments in which conflict takes place, casualty recording will inevitably be undertaken using a variety of methods that respond to the operational context and the purpose the data is meant to serve. Casualty data recorded at the incident level, for example, allows the information to be used to identify patterns of harm, which can be useful for various advocacy purposes, while data recorded at the individual level might better serve accountability efforts. The broad range of methods used by casualty recorders can usefully be understood within the framework of the three distinct approaches outlined below.¹³

The first approach encompasses methods that use documentary evidence produced by others as the main source on which to base the recording, supplemented wherever possible by additional information or corroboration

¹³ The framework was developed from original research published by Every Casualty (note 6), pp. 14–16.
from on-the-ground sources or investigators. Documentary sources can be diverse, and may originate from NGOs and other civil society organizations, intergovernmental organizations, the media, social media or state records. The sources are cross-checked and the credibility of the information provided is evaluated. The level of certainty awarded ultimately depends on the quality of the documents available. Casualty recording is done at the incident level because information relating to those who died is too inconsistent to record at the individual level.

An example of a purely document-based casualty recorder is Nigeria Watch, which records those who die a violent death—the scope of which goes beyond armed conflict—in Nigeria.\(^{14}\) The recording relies on the systematic and continuous monitoring of 10 national daily newspapers, which yields data that allows it to study and identify patterns of harm and their causes in the country (see figure 6.12).\(^{15}\) Another example is the work of Airwars, which mostly uses documents, but in combination with other sources.\(^{16}\) Its recording is based on: (a) military sources, using the military briefings of the states participating in the air war in Iraq and Syria; (b) other organizations’ recording of casualties in either the Syria or the Iraq conflict; (c) the English language and Arabic media; and (d) its own Iraq-based researcher’s contacts on the ground to corroborate certain events. Airwars’ recording is done at the incident level, listed by time and location, and showing the human impact of each incident. This data is used in advocacy efforts to hold the various international forces accountable.

A second approach to casualty recording relies on a wide range of sources in the first instance, but also consistent on-the-ground investigation of cases. The aim of this approach is to obtain a full and highly detailed record. All possible documentary evidence and other items of information are sought, with priority given to collecting information from family members and eyewitnesses. Such casualty recording enables the compilation of comprehensive lists of those who died and is usually undertaken with the aim of arriving at individual level data. Even using this method, however, it can be difficult to identify all those who died, and incident level recording will also form part of the approach.

Most instances of such detailed recording occur post-conflict, but B’Tselem—an organization that records fatalities in Israel, the Occupied Palestinian Territories and Gaza—is able to document casualties in the ongoing


\(^{15}\) For a detailed analysis of Nigeria Watch’s methodology and the uses made of the data see Giger, A. and Minor, E., Learning from Casualty Recording Experience: Nigeria Watch 2015 (Every Casualty: London, 2015).

conflict by collecting official documents, such as copies of identification documents, death certificates and medical records, and compiling the testimonies of witnesses and family members of the victim. This information is then cross-checked with documentary evidence from the Israeli Defence Force (IDF), Palestinian armed groups, Palestinian and international human rights organizations and media reports. The resulting detailed data can be used in attempts to hold both parties to the conflict to their obligations under international humanitarian law (IHL), and to inform the relief efforts of humanitarian organizations.

The third approach is unknown victim identification. This approach is quite distinct in that casualty recorders are only recording a specific kind of victim: those whose bodies have been discovered, often with the need for identification, buried in mass graves. This contributes greatly to providing information about the missing, and requires the use of advanced forensic techniques to confirm the identities of the dead. This method, which also makes use of the types of documentation outlined above, is only possible in post-conflict contexts as it requires an official request or permission from the state to carry out certain key aspects of the work, such as exhumations. The Guatemala Forensic Anthropology Foundation (FAFG), for example, works to identify the human remains found in the aftermath of the

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**Figure 6.13.** The casualty-recording practice spectrum

*Credit:* Hugo Ahlenius, Nordpil, <https://nordpil.se/>.

1960–1996 internal armed conflict in Guatemala. It also documents the events surrounding mass disappearances and clandestine massacres where this helps the identification process.

The study of 40 casualty recorders that yielded this framework clearly shows that the data produced by all the participating recorders was of sufficient quality to be useful to other actors irrespective of the range of sources available or the environment in which the recorders worked. Variations in the methods employed or between the kinds of sources used by different casualty recorders does not, therefore, indicate fundamental differences in goals or amount to evidence that casualty data produced by different means is less valuable—only that different contexts and resources call for different responses in order to produce useful data.

Figure 6.13 summarizes the main sources, uses and outcomes found in the field of casualty recording. It illustrates the various types of casualty recording that are possible under different circumstances. Different sources might be available depending on the context. There may be only a limited number of sources during intense periods of conflict but a wider array after the violence has subsided or ended. A recorder might not at first be able to independently investigate the information provided by sources, and so might instead aggregate and corroborate it to produce a database of conflict incidents. Work that has already been done to corroborate information and create such a database can provide a baseline or starting point for new investigations, which in turn will lead to a more detailed and certain picture of the human losses from a conflict. As this picture becomes more precise, further uses of the data are made possible, which can address other issues, such as the identification of missing persons, or provide information that can be used to make legal determinations.

**Harmonizing practice**

While acknowledging that different methods yield equally valuable and reliable data, there has been a will expressed by casualty recorders to work towards a certain degree of harmonization of casualty recording in order to increase the legitimacy of the field and facilitate higher levels of sharing and use of casualty data.

Practitioners and end-users came together in 2013 to begin a process of developing standards for the field of casualty recording. These are being designed to establish a baseline of practice that can be applied across the field while respecting the diversity of the actors, methods and approaches involved. The purpose is to make casualty data more straightforward to use and share, and provide a means that allows discussion of casualty data to be

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grounded in assessments of the quality of the data rather than of the political stance of those promoting or criticizing particular casualty figures.

Work has focused on identifying issues and topics that all casualty recorders should consider and address regardless of the methods they use. These include discussions on: the security, both physical and digital, of the people taking part in a casualty recording initiative, sources, organizational transparency, methods and publication. Most importantly, a core set of five values-based principles has been identified and articulated in order to guide practice. The five principles are do no harm, transparency, responsibility, inclusiveness and consistency.

Do no harm relates to all aspects of casualty recording, from the collection of data in often highly dangerous environments, to devising security protocols for protecting this data. The data collected by casualty recorders is often of a sensitive nature, especially when it comes to sources and the testimonies given by eyewitnesses and others.

Transparency is a recurring theme that helps to foster trust between practitioners, and between practitioners and end-users. This involves openness about all aspects of their activities, including organization, methodology, definitions, exclusion and inclusion criteria, publication rationale, and the means of guaranteeing the security of their staff, witnesses and data, without disclosing their security procedures in ways that would compromise them.

Responsibility refers to the need for casualty recorders to take account of the rights and needs of different stakeholders affected by or involved in a project. This includes, for example, casualty recorders considering the legal and regulatory issues relating to their data, such as a casualty recorder being required by a court order to transfer its data to a state body, or the use of a third-party service provider, such as a data host, becoming another means by which data security is compromised.

Inclusiveness means striving to include all the armed conflict deaths that a given casualty recorder is able to record, and being completely transparent about any inherent exclusions or limitations.

Consistency is required to ensure that casualty data is usable. Deviations from an existing methodology—including for positive reasons, such as its improvement—should be indicated.

Another important topic for discussion has been the generation of a common list of the major points of information that it is most useful to record, whenever possible. The aim of such a list is to compile comprehensive documentation that can be used to fulfil a wide range of purposes at a time when it is possible to devote the appropriate analytical methods to it. The listed

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categories are number killed; location of incident; date of incident; source, meaning the kind of sources that document an event; name, age and sex of the victim; means of killing; and actors involved (excluding the victim).

While the practice of casualty recording encompasses many methods of working, it is becoming better articulated and better defined by practitioners who, through their collaborative interactions, have constituted themselves as a field of professional practice. The discussions that arise from this collaboration are instrumental in providing the conflict casualty data requested by many organizations and entities, while providing them with the means to put this data to an impartial test regarding how it has been acquired and presented.

**Casualty recording as an international norm**

Although casualty recording is being conducted throughout the world, it is notable that it is undertaken mostly by civil society organizations and more rarely by United Nations agencies, such as the human rights sections in the UN assistance missions in Afghanistan (UNAMA) and Iraq (UNAMI).\(^20\) States are seldom seen to engage in this practice for both civilians and combatants, although it is frequently done for combatants alone. States that have most recently engaged in an effort to document the deaths of all those who died in a conflict include Colombia and Tunisia.\(^21\) No state thus far has publicly engaged in the direct and systematic recording of civilian casualties during an armed conflict in which it is directly involved.\(^22\)

**The existence of a legal obligation**

Considering the inconsistency with which states engage in casualty recording activities, it is legitimate to ask whether states are subject to any legal obligations to record civilian casualties in armed conflict.

A rare example of research on the issue was conducted in 2011. It concluded that such a legal obligation does exist.\(^23\) This obligation is rooted in both IHL

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\(^21\) In Colombia, a special law was passed in 2011 to create the framework for documenting and providing justice to the victims of the conflict (and their families in the case of the dead), as well as to deal with land issues. For further details see <http://www.secretariasenado.gov.co/senado/basedoc/ley_1448_2011.html> (in Spanish); and Patel, I. and Giger, A., *Casualty Recording in Tunisia: Responses to the 2010–2011 Uprising* (Every Casualty: London, 2015).

\(^22\) For example, the release by Wikileaks of the ‘Iraq war logs’ showed that the US military was collecting information about both combatant and civilian deaths in Iraq. For further details see <https://www.iraqbodycount.org/analysis/qa/warlogs/>.

and international human rights law (IHRL), including treaty-based and customary international law. The report reviewed all relevant IHL and IHRL treaties—the Geneva conventions of 1949, their two Additional Protocols of 1977, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Convention Against Torture—as well as the extensive study on Customary International Humanitarian Law published by the International Committee of the Red Cross (ICRC).

While IHRL is applied in circumstances that are not defined as armed conflict (whether international or not), the nature of conflict in recent years has made the line between the application of IHL and IHRL more difficult to draw. The provisions of IHL are more limited in cases of intrastate armed conflict, which has become the most common scenario. Articulating IHL provisions with IHRL thus offers a possibility of filling a gap, a practice that has been used by the European Court of Human Rights when delivering judgements on cases that would have traditionally only been dealt with under IHL.

On this basis, the report concludes that provisions exist within IHL and IHRL that constitute the components of a legal obligation on states to undertake casualty recording. These provisions are on: (a) the search for and collection of the dead; (b) the treatment of the dead; (c) the return of the remains and personal effects of the dead; (d) the disposal of the dead with dignity; (e) accounting for the dead; (f) identification of the dead after disposal; and (g) information concerning the dead. Thus, human rights obligations with respect to the dead and missing enhance and support the obligations of states involved in conflict outlined in IHL. While these obligations are scattered and disconnected in several different instruments and customary rules within IHL and IHRL, this in no way undermines their existence.

In addition, the ICRC has recently published a new set of commentaries on the Geneva conventions and their Additional Protocols. This update reflects the experience gained by the ICRC in applying the conventions and Protocols and the evolution of conflict and its contemporary reality. The commentaries provide greater detail on the obligations to the dead, particularly those in articles 16 and 17 of the first Geneva Convention. However, these provisions are pertinent under limited circumstances as they

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apply only to combatants; article 16, in particular, relates to ‘dead person[s] of the adverse Party falling into [one party’s] hands’. However, difficulties in differentiating between combatant and civilian casualties is reflected in the commentary, which calls for a record to be created in cases of doubt.\(^\text{28}\) Although the ICRC commentaries are not legally binding on states, they are an influential interpretation of the law, and the greater concern accorded to the recording of casualties reinforces the legal obligations outlined above.

**Supporting the protection of civilians and other peace mechanisms**

Casualty recording and the data it generates also provides a mechanism that can inform and advance different conflict-related agendas that are important to the international community. A good illustration of this is how casualty recording can contribute to the monitoring of the protection of civilians in armed conflict, and to ensuring that states engaged in war respect their IHL obligations. During military action, for example, conflict parties must consider: the principles of proportionality, that the number of civilian casualties will not be disproportionate to the military gains; distinction, which requires belligerents to distinguish civilians and civilian objects from combatants and military targets, directing attacks only towards the latter; and precaution, which entails that conflict parties take measures to avoid or minimize the harm done to the civilian population. That these principles must be adhered to is clear, but what this means on the ground has been much debated. How can proportionality be quantified? How can it be proved that the precautions taken were effective?\(^\text{29}\) To engage meaningfully in these discussions, objective criteria must be set for monitoring implementation of these principles. Casualty data makes it possible to study and identify individual cases as well as repeated patterns of harm against the civilian population during conflict. Once these criteria are established, casualty recording also becomes an important mechanism for monitoring that such principles are respected, and for keeping track of conflict parties’ fulfilment of their obligations under IHL.

Through monitoring and analysing the impact of conflict on specific segments of the population, casualty recording can also be used to support other important topics on the international agenda, such as the use of children in armed conflict, and women, peace and security. It can also support transitional justice processes, such as truth seeking, compensation and memorialization, and cast a clearer light on causes of death and the impact of weapons, thereby supporting arms control processes. Over time, as the


practice of casualty recording becomes standardized and is itself better understood, casualty data will become increasingly useful for informing decision-making on these important topics—contributing not only to greater accountability, but also to improved protection.

There is now a clear opportunity for greater engagement by states in supporting casualty-recording initiatives, both politically and financially. While casualty recording is a legal obligation, it is not one that many states recognize as universally applicable or implement when they are themselves a party to conflict. However, it seems clear that states have a responsibility to monitor the casualties they incur during conflict—not least under their IHL obligations—which casualty recording could help them to fulfil. Recognizing the value of casualty recording and practicing it more systematically—beyond recording only combatant casualties—would be a significant step towards making it an international norm.

Conclusions

This section has shown how records of the dead are being created in situations of armed conflict. Beyond numbers, those who undertake casualty recording in conflicts work to put together detailed records of the dead not just to keep track of the various types of harm inflicted by sustained violence on a society, but also to humanize the victims. In recent years, this work has been mostly undertaken by civil society organizations. Casualty recorders are increasingly working together to harmonize practice worldwide and systematically engage with potential end-users, demonstrating that while this is a field in which methods may need to vary it is one that shares a common vision.

The section also sets out the components of international law that make casualty recording a legal obligation on states, particularly in relation to the protection of civilians. The most recent interpretations of the Geneva conventions by the ICRC tend towards a growing recognition that, due to the changing nature of conflict, casualty recording should be systematic not only for combatants, but also for civilians. If states do not engage in the practice of casualty recording themselves, they should support the work done by civil society organizations, by either funding their activities or cooperating with them in the documentation process—or in the way that best leads to the work being carried out effectively.

There is a growing call, including from the UN Secretary-General, for the recording of every casualty in situations of armed conflict. Meanwhile, civil society actors have shown that highly useful and effective recording is already possible and is being practiced in conflict or after conflict. At its

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30 United Nations (note 3).
heart is the humanization of victims, their recognition and the protection of those who remain after them—a principle that is in itself already universal.