

Strengthening the medicolegal system: Fulfilling international law obligations during conflicts and disasters to prevent and resolve issues of humanitarian concern

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Abstract

In times of armed conflict, disasters and violence, people may become separated from their families, go missing or die, or become victims of ill-treatment and sexual violence. Under international humanitarian law, States have obligations to prevent harm and address humanitarian needs. At State level, the medicolegal system is conventionally mandated to address these needs and fulfil related legal obligations. In practice, State responses can sometimes be non-existent, limited by the endemic functionality of existing systems, or degraded by crises of violence, natural disasters and migration. These conditions can, in turn, impede the establishment of peace, reparations, restorative justice efforts and post-conflict reconstruction. This paper explains what a medicolegal system is and the entities that encompass it. The paper highlights the importance of developing clear policies, regulation and procedures

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that ensure proper functioning of the system. It reviews common gaps and challenges that limit State prevention and response to issues of humanitarian concern. Finally, recommendations when developing and implementing humanitarian programmes to strengthen medicolegal systems are provided, with a particular focus on the content of protection dialogue in diplomatic fora.

Keywords: medicolegal systems, humanitarian forensic action, international humanitarian law, international human rights law, national implementation.

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Introduction

In times of armed conflict, other situations of violence, disasters, and migration, people may get separated from their families, go missing or die. They can also become victims of ill-treatment and sexual violence, especially in the contexts of detention, displacement and migration. Under international humanitarian law (IHL), international human rights law (IHRL) and other applicable international legal frameworks, States have obligations to protect those who are separated, deprived of their liberty, go missing and die. In practice, the State's response to humanitarian needs is limited and sometimes non-existent, and this has a direct impact on individuals, their families and their communities, in peacebuilding efforts, and in the reconstruction of the society at large.

Humanitarian actors have established programmes to address these needs and support States in their response, which has led to examples of good practices and lessons learned that have been materialized in multiple documents, including guiding principles, model laws, recommendations, protocols and operating procedures. However, the magnitude of the problem remains considerable, worsened by contemporary forms of violence, economic crisis and climate change, and the impact of humanitarian actions seems to be rather low, or not what is expected for the efforts undertaken.¹

There is an intrinsic link between the international and the domestic levels when it comes to better respect for IHL and better implementation of applicable legal frameworks. Efforts at the international level are needed to continue developing and clarifying the law, but these efforts “can only be meaningful if they are accompanied by a parallel driving force at the domestic level”.² However,

- 1 International Committee of the Red Cross (ICRC), *Annual Report 2021*, Vol. 1, Geneva, June 2022, available at: <https://library.icrc.org/library/docs/DOC/icrc-annual-report-2021-1.pdf> (all internet references were accessed in January 2024); World Economic Forum, “The 20 Humanitarian Crises the World Cannot Ignore in 2023 — and What to Do about Them”, 14 December 2022, available at: www.weforum.org/agenda/2022/12/the-20-humanitarian-crises-the-world-cannot-ignore-in-2023-and-what-to-do-about-them/. See also “Interview with Peter Maurer”, *International Review of the Red Cross*, Vol. 104, No. 920–921, 2022, available at: <https://international-review.icrc.org/sites/default/files/reviews-pdf/2022-11/interview-peter-maurer-president-of-the-icrc-920.pdf>.
- 2 Rachael Kitching and Anne Quintin, “The Well-Trodden Path of National International Humanitarian Law Committees”, *International Review of the Red Cross*, Vol. 104, No. 920–921, 2022.

the issue goes beyond incorporating international law in domestic legislation – the respect and effective implementation of IHL and IHRL obligations also rely heavily on the functionality of governance and infrastructural systems.³ Well-functioning and resilient systems are essential in the State response to emergencies and the prevention of humanitarian problems.⁴ Humanitarian action is evolving from the provision of support to alleviate the short-term effects of emergencies, to strategies that will support States in addressing long-term needs with a systemic approach. In the case of missing persons, deceased individuals, victims/survivors of ill-treatment⁵ and sexual violence, the medicolegal system is the system responsible and largely involved in preventing and addressing these concerns. In this sense, the systemic approach requires actors to move from improving institutional capacities to strengthening the medicolegal system.

The medicolegal system⁶ can be defined as the set of principles, regulations and procedures for the investigation⁷ of crimes against life and personal integrity by different public entities that belong to the judiciary, law enforcement and forensic services. Medicolegal processes are case-based and reliant on scientific knowledge, investigative methodology and logical reasoning.⁸ The term “forensics” derives from the Latin word *fora*, which means legal assembly to discuss matters of legal interest; it refers to the application of scientific methods and techniques to the investigation of crimes and other issues in the legal realm.⁹ Ill-treatment, sexual violence, reuniting children with their families, missing persons, management of the dead and identification of individuals are examples of problems with legal implications, which require science and scientific methodologies to be employed. Effective investigations aiming at documenting events in order to support accountability processes and support humanitarian needs are an important aspect in the overall eradication and prevention of crimes such as enforced disappearances, torture and sexual violence.¹⁰

3 ICRC, *Implementing International Humanitarian Law: From Law to Action*, Geneva, September 2019, pp. 3–4.

4 ICRC, *Institutional Strategy 2019–2024*, Geneva, February 2022, available at: <https://shop.icrc.org/icrc-strategy-2019-2022-pdf-en.html>.

5 In this article, the expression “ill-treatment” is used in the same manner in which the ICRC uses it to include acts of torture, cruel or inhuman treatment, and humiliating and degrading treatment. See ICRC, *Policy on Torture and Cruel, Inhuman or Degrading Treatment Inflicted on Persons Deprived of Their Liberty*, 9 June 2011, available at: <https://shop.icrc.org/icrc-policy-document-on-torture-and-cruel-inhuman-or-degrading-treatment-inflicted-on-persons-deprived-of-their-liberty-pdf-en.html>.

6 Also known as the medicolegal investigations system or medicolegal death investigations system, although these refer only to deaths that require medicolegal investigation.

7 The term “investigations” is used to denote all actions which have the purpose of establishing the facts surrounding an incident or event.

8 Claude Roux *et al.*, “The Sydney Declaration – Revisiting the Essence of Forensic Science through Its Fundamental Principles”, *Forensic Science International*, Vol. 332, 2022, available at: <https://doi.org/10.1016/j.forsciint.2022.111182>.

9 “Forensics”, *Oxford English Dictionary*, available at: www.oed.com/search/dictionary/?scope=Entries&q=forensics.

10 UN Commission on Human Rights, *Human Rights and Forensic Science*, UN Doc. E/CN.4/RES/1992/24 Ref. 48, 28 February 1992; *Report of the Secretary-General on Human Rights and Forensic Science Submitted Pursuant to Commission on Human Rights Resolution 1992/24*, UN Doc. E/CN.4/1993/20, 5 February 1993; Claire Moon, “Human Rights, Human Remains: Forensic Humanitarianism and the

The principles, regulations and procedures of the medicolegal system differ from country to country. Depending on the context and as per local frameworks, the entities vary and may include private institutions,¹¹ but the system always includes the judiciary, law enforcement and forensic institutions. Forensic institutions are part of the overall medicolegal system, while armed forces become part of the system in specific circumstances (i.e., armed conflict or when granted judicial police powers). Other entities become part of the system when, due to an emergency, they are mandated with tasks that are normally part of the functions of the main entities of the medicolegal system.¹² Examples of these are volunteer organizations, civil defence bodies, and in some countries National Red Cross and Red Crescent Societies.

The main role of the medicolegal system is to support the administration of justice while ensuring the protection of human rights and upholding the rule of law. Medicolegal investigations are also critical for aspects related to policy-making, prevention of crimes and public health and safety.¹³ They provide important information that can be used in the evaluation of health care, research and epidemiology, and in the development of prevention programmes (such as those addressing road accidents, suicide or substance abuse). In the case of post-conflict situations, the system plays an essential role in overall efforts for truth, justice (including transitional justice), memory, reparation and non-repetition.

By understanding the role, gaps and challenges of the medicolegal system in contributing to States' response and implementation of IHL and IHRL, humanitarian – and development¹⁴ – actors could then develop and implement strategies and/or specific programmes to strengthen the medicolegal system in a sustainable manner, from advocacy at the political level to assistance in their operations.

This article first reflects on the role of the medicolegal system in the protection of human rights and in the prevention of and response to relevant humanitarian issues for people affected¹⁵ by conflict and violence, and in

Human Rights of the Dead", *International Social Science Journal*, Vol. 65, No. 215–216, 2014, available at: <http://dx.doi.org/10.1111/issj.12071>; Report of the Special Rapporteur on Transitional Justice on the Promotion of Truth, Justice, Reparation and Guarantees of Non-Recurrence, UN Doc. A/HRC/36/50, 21 August 2017.

11 ICRC, *Medico-Legal Systems and Forensic Services: An Assessment Guide*, Geneva, 15 December 2022 (internal document).

12 For example, during natural disasters, the search and recovery of deceased individuals and the collection and provision of information to affected families.

13 Margaret Warner and Paula A. Braun, "Public Health Impact: How Medicolegal Death Investigation Data Help the Living", *Academic Forensic Pathology*, Vol. 7, No. 4, 2017, available at: <https://doi.org/10.1177/192536211700700405>.

14 For development actors, Objective No. 16 of the agreed Sustainable Development Goals also needs to consider the medicolegal system in a systemic manner in order to reach the objective of "sustainable cities, sustainable systems" through "peace, justice and strong institutions". See United Nations (UN), *The Future Is Now: Science for Achieving Sustainable Development: Global Sustainable Development Report 2019*, Geneva, 2019, p. 19, available at: https://sdgs.un.org/sites/default/files/2020-07/24797GSDR_report_2019.pdf.

15 For the purposes of this article, the expressions "people affected" and "affected populations" refer to the following target populations that are entitled to protection by international law: people that suffer

situations of disaster, detention, displacement and migration, while ensuring that the objectives of humanitarian action (e.g., sustainability and building local capacities) are also achieved. The article then provides a general overview of the main gaps and challenges of the system that prevent States from responding adequately. Finally, taking these aspects into consideration, recommendations to adjust the development and implementation of programmes, including in the narrative of the humanitarian dialogue, are proposed.

The medicolegal system and its role in contributing to States' fulfilment of IHL and IHRL, and States' response to issues of humanitarian concern

Under IHL and IHRL, States have obligations to protect the lives, personal integrity and dignity of people affected by armed conflict and other situations of violence, but also in peacetime and during natural disasters. These obligations are linked to the right to life, the right to family life and the right to truth and justice, amongst others. This section will not expand on the fundamental rules and legal provisions pertaining to the affected population contained in international law,¹⁶ but will describe the role of the medicolegal system in contributing to States' respect for and implementation international law, which ultimately impacts States' prevention of and response to issues of humanitarian concern. Although the medicolegal system also plays an important role in the prevention of and response to some of the issues faced by people deprived of their freedom and survivors of sexual violence, this article will focus on aspects related to missing and deceased persons and their families.

Missing persons and the medicolegal system

The role of the medicolegal system in relation to the issue of missing persons is well described, although without specifically meaning to do so,¹⁷ in the conclusions and

involuntary separation and need to be reunited with their families, people that go missing and their families, people that die and their families, and people that are exposed to ill-treatment, sexual violence and other forms of violence, in the context of armed conflict, other situations of violence, disasters, detention, and forced displacement and migration.

- 16 For more detailed information on the international legal framework for the protection of affected populations, see ICRC, "Missing Persons and Their Families", legal factsheet, Geneva, 31 December 2015, available at: www.icrc.org/en/document/missing-persons-and-their-families-factsheet; ICRC, "Humanity after Life: Respecting and Protecting the Dead", legal factsheet, Geneva, 3 April 2020, available at: www.icrc.org/en/document/humanity-after-life-respect-and-protection-dead; ICRC, above note 5; ICRC, "Prevention and Criminal Repression of Rape and Other Forms of Sexual Violence during Armed Conflicts", legal factsheet, Geneva, 11 March 2015, available at: www.icrc.org/en/document/prevention-and-criminal-repression-rape-and-other-forms-sexual-violence-during-armed; Helen Obregon Gieseken, "The Protection of Migrants under International Humanitarian Law", *International Review of the Red Cross*, Vol. 99, No. 904, 2017.
- 17 As will be explained in this section, the recommendations related to the search for missing persons presented at the Conference are *per se* the functions of the medicolegal system, and therefore represent the role of the system in the issue of missing persons.

recommendations of the International Conference on Missing Persons and their Families that took place in Geneva in 2003.¹⁸ These conclusions and recommendations were the result of a project entitled “The Missing” launched by the International Committee of the Red Cross (ICRC) in 2002 with the objective of better understanding the problem, identifying needs and areas that would require action, and agreeing on recommendations and operational common and complementary practice with all actors working on the prevention of disappearances and resolving cases.¹⁹ This set of recommendations remains valid and is the essence of today’s humanitarian work on behalf of missing persons and their families.

The recommendations include aspects related to the need to increase measures for the prevention of disappearances, the obligation to clarify the fate and whereabouts of missing persons, the need to improve information management on missing persons and deceased individuals, and the need to improve the management of the dead and to provide the necessary support to affected families.²⁰ They also instruct States that all actions aimed at clarifying the fate and whereabouts of missing persons should be based on the processes of search²¹ and management of the dead,²² conducted in a professional manner and by competent human resources. More specifically, the recommendations highlight the need to take the necessary measures to identify deceased individuals and to issue the corresponding death certificates, the need for procedures to follow regulations and principles of professional ethics, and that whenever possible, the search, recovery, examination and identification of deceased individuals is carried out by forensic specialists.²³

The recommendations also include the need to train all those involved in the collection of information,²⁴ not only from families but also from the dead. They also mention that all the processes of collection of information, search,

18 ICRC, *The Missing and their Families: Documents of Reference*, February 2004, p. 3, available at: <https://shop.icrc.org/the-missing-and-their-families-documents-of-reference-pdf-en.html>.

19 *Ibid.*, p. 13.

20 *Ibid.*, p. 15.

21 The search process refers to all the actions required to reconstruct in retrospective the journey of an individual from the moment he or she loses contact until he or she is found, alive or dead. It includes procedures related to the collection of information, contextual analysis and investigations and identification, amongst others. See Mercedes Salado Puerto *et al.*, “The Search Process: Integrating the Investigation and Identification of Missing and Unidentified Persons”, *Forensic Science International: Synergy*, Vol. 3, 2021.

22 Management of the dead is a process encompassing different stages that begin with the information or report of death and end with the return of the body to the bereaved and final disposition. The process includes all actions related to search, recovery, documentation, identification, and temporary storage or burial. See e.g. Stephen Cordner and Sara T. D. Ellingham, “Two Halves Make a Whole: Both First Responders and Experts Are Needed for the Management and Identification of the Dead in Large Disasters”, *Forensic Science International*, Vol. 279, 2017.

23 ICRC, above note 18, p. 15. While this may seem to be the norm, the lack of regulation, procedures and specialized human resources is among the main challenges, as will be explained in the following sections of the article.

24 Information management, which includes the collection of information, is embedded in the search for missing persons and in processes for management of the dead, and hence needs to be considered in a systemic manner. See M. Salado Puerto *et al.*, above note 21, p. 17.

exhumations, autopsies and identification should be conducted in the frame of standard procedures and based on valid and approved scientific methods. The recommendations highlight the need to take the necessary measures to adequately involve communities and families in exhumations, autopsies and identification.²⁵

The international legal obligations of States to protect the right to know of families of missing persons, to conduct effective investigations, to prevent individuals from going missing and to ensure that those who go missing are accounted for and their families informed,²⁶ along with the above-mentioned recommendations, are amongst the functions of the medicolegal system. Therefore, the entities of the medicolegal system are responsible for ensuring their implementation. When humanitarian actors advocate or mobilize authorities to take all feasible measures to account for persons reported missing and to provide answers to families, it is ultimately the entities of the medicolegal system that are the target of these recommendations.

When a person goes missing, the starting point of the investigation is the State authorities of the medicolegal system. Depending on the country, this is normally law enforcement, but in certain contexts and for various reasons (e.g., law enforcement is not trusted by the relatives of the missing persons), other entities of the medicolegal system (such as forensic institutions) can also register cases of disappearances and are directly involved in the collection of data.²⁷ The fate of a missing person needs to be established with certainty, and the identification of the missing person following standard procedures and scientific methods provides this certainty. In the case of death, the fate of missing persons is legally determined by the certification of death, based on the death certificate and identification report issued by the corresponding entities of the medicolegal system. The whereabouts of missing persons, alive or dead, are determined by the outcome of the reconstruction of events conducted by the different entities of the medicolegal system. Providing complete and accurate information to families is also the responsibility of the entities and experts of the medicolegal system. Even when parallel national or international mechanisms are put in place (i.e., national/international commissions for missing persons), these necessarily rely on the work of one or more of the entities of the medicolegal system,²⁸ with few exceptions (such as in the case of the Committee of Missing Persons in Cyprus²⁹). When parents are required to demonstrate kinship in order to be

25 ICRC, above note 18, p. 17.

26 ICRC, "Missing Persons and Their Families", above note 16.

27 In Colombia, families of missing persons can register their cases at entities other than law enforcement (e.g., the National Institute of Legal Medicine and Forensic Sciences), as families of missing persons from non-State armed groups will not register their cases with the police for fear of retaliation or of being subject to investigation. See National Commission for the Search for Missing Persons, *Plan Nacional de Búsqueda*, Bogotá, 2012, available at: www.comisiondebusqueda.gov.co/images/abook_file/BPLANNACIONAL.pdf.

28 Monique Crettol, Lina Milner, Anne-Marie La Rosa and Jill Stockwell, "Establishing Mechanisms to Clarify the Fate and Whereabouts of Missing Persons: A Proposed Humanitarian Approach", *International Review of the Red Cross*, Vol. 99, No. 2, 2017.

29 The Commission on Missing Persons in Cyprus (CMP) is the only example of a completely independent mechanism that does not rely on the State authorities of the medicolegal system, because it has created a

reunited with their separated children, the entities of the medicolegal system are necessarily involved. When humanitarian programmes aim at supporting States in having an effective system in place to manage information on missing persons, to coordinate all efforts, to conduct the search and to properly inform families, the “system in place” is none other than a well-structured and functional medicolegal system that has *per se* the mandate to perform these tasks.

Protection of the dead and the medicolegal system

The medicolegal system is responsible for the professional management and investigation of deaths that are unattended,³⁰ under known or suspicious violent circumstances (e.g., following disappearances) or of unnatural/unexplained causes. These include homicides, suicides, unintentional injuries, drug-related deaths, and disease-related deaths that are sudden or unexpected. These deaths also have important national public health (e.g., deaths linked to the side effects of a medication from a specific lot number) and public safety implications³¹ (e.g., linked to a specific location or at a specific time of day that after proper analysis can lead to a specific threat). It is the responsibility of the medicolegal system to have in place procedures that follow ethical standards, while also bringing comfort and answers to the bereaved.

State IHL and IHRL obligations towards the dead aim at ensuring that the dignity of the deceased is preserved and that their families are respected; these obligations go beyond the framework of the missing, as not every dead body corresponds to a missing person. Other obligations related to the dead include the obligation to investigate the death and inform families, to ensure that the dead are honourably interred in accordance with cultural practices and religious beliefs, and to protect the right of the dead to have their identity restored.³² In the case of international armed conflict, parties shall organize at the commencement of hostilities an Official Graves Registration Service (OGRS)³³ to

complete system within itself. Nevertheless, it does require a State forensic doctor to sign the death certificate, which is necessary for all the subsequent legal and administrative procedures. Paradoxically, one could even note that the CMP’s high rate of success is due precisely to the fact that it has built an entire “medicolegal system” within the mechanism. This example demonstrates that a well-structured system and particularly strong forensic capacities are needed for the overall clarification of the fate and whereabouts of missing persons and the provision of answers to families. See Gülbano K. Zorba, Theodora Eleftheriou, İstenç Engin, Sophia Hartsioti and Christiana Zenonos, “Forensic Identification of Human Remains in Cyprus: The Humanitarian Work of the Committee on Missing Persons in Cyprus (CMP)”, in Roberto Parra, Sara C. Zapico and Douglas H. Ubelaker (eds), *Forensic Science and Humanitarian Action: Interacting with the Dead and the Living*, Vol. 2, John Wiley & Sons, Hoboken, NJ, 2020, p. 609.

30 “Unattended” death refers to the death of a person who has not been seen by a medical doctor, physician or medical personnel within the scope of their professional capacities.

31 Organization of Scientific Area Committees for Forensic Science of the National Institute of Standards and Technology), *ANSI/ASB Standard 125: Organizational and Foundational Standard for Medicolegal Death Investigation*, 1st ed., 2021.

32 See ICRC, “Humanity after Life”, above note 16.

33 Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field of 12 August 1949, 75 UNTS 31 (entered into force 21 October 1950), Art. 17.

ensure that information is collected and preserved, that graves are properly maintained and marked allowing subsequent exhumations, and that bodies are identified and transported to their home countries. These are all tasks that involve, directly or indirectly, the different entities of the medicolegal system. Other legal provisions such as recording casualties³⁴ in case of emergencies and armed conflict are also the responsibility of the entities of the medicolegal system.

Humanitarian actors and other practitioners and organizations have consolidated guiding principles for the management of the dead in times of emergencies to prevent them from becoming missing persons.³⁵ Also, there has been existing guidance and principles for the medicolegal investigation of deaths since 1991, consolidated in the United Nations (UN) *Manual on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions* and its revised version, the *Minnesota Protocol on the Investigation of Potentially Unlawful Death* (Minnesota Protocol).³⁶ The medicolegal system is primarily responsible for the implementation of both of these guiding principles and recommendations.

In the context of migration, recommendations for the search for and identification of missing and deceased migrants,³⁷ as well as efforts to provide information to their families made by various non-governmental and humanitarian organizations, include the setting up of mechanisms for the standardized collection and sharing of information at the local and regional levels, strengthening forensic capacities, ensuring coordination, improving search pathways, and ensuring burial and grieving ceremonies as per the deceased's religious beliefs and culture.³⁸ In 2018, in the Global Compact for Migration, more than 150 States committed to engage in “coordinated international efforts on missing migrants”, to cooperate in “the standardized collection and exchange of relevant information” and “to identify those who have died or gone missing,

34 Susan Breaux and Rachel Taylor, *Update on Discussion Paper: The Legal Obligation to Record Civilian Casualties of Armed Conflict*, Every Casualty Counts, June 2022, available at: <https://everycasualty.org/wp-content/uploads/2022/06/Updated-discussion-paper-on-the-legal-obligation-to-record-casualties-2022-FINAL.pdf>.

35 ICRC, *Guiding Principles for Dignified Management of the Dead in Humanitarian Emergencies and to Prevent Them Becoming Missing Persons*, Geneva, November 2021, available at: <https://shop.icrc.org/guiding-principles-for-dignified-management-of-the-dead-in-humanitarian-emergencies-and-to-prevent-them-becoming-missing-persons.html>.

36 Office of the United Nations High Commissioner for Human Rights, *The Minnesota Protocol on the Investigation of Potentially Unlawful Death* (2016), New York and Geneva, 2017 (Minnesota Protocol), available at: www.ohchr.org/sites/default/files/Documents/Publications/MinnesotaProtocol.pdf.

37 Jose Pablo Baraybar, Inés Caridi and Jill Stockwell, “A Forensic Perspective on the New Disappeared: Migration Revisited”, in Roberto Parra, Sara C. Zapico and Douglas H. Ubelaker (eds), *Forensic Science and Humanitarian Action: Interacting with the Dead and the Living*, Vol. 1, John Wiley & Sons, Hoboken, NJ, 2020, p. 101.

38 ICRC, *Missing Migrants and Their Families: The ICRC's Recommendations to Policy-Makers*, Geneva, August 2017, available at: <https://shop.icrc.org/missing-migrants-and-their-families-the-icrc-s-recommendations-to-policy-makers-pdf-en.html>. See also the 2007 call of the Council of Europe's Commissioner for Human Rights for the EU to account for and identify migrant deaths, or the Council of Europe's proposal that European States set up a system of data collection for the mortal remains of persons killed at sea during the Council of Europe Parliamentary Assembly, 8 June 2014.

and to facilitate communication with affected families”.³⁹ These are all tasks of the medicolegal entities, and the implementation of these recommendations relies on the proper functioning of the medicolegal system.⁴⁰

Emergency preparedness and response and the medicolegal system

The entities of the medicolegal system, mainly law enforcement and forensic institutions, are responsible for State emergency preparedness and response in relation to the deceased and missing persons, and attention to affected families – even more so if the events require criminal investigation, such as in the case of a terrorist attack or a plane crash. It is important to note that during emergencies, management of the dead and their families goes beyond the recovery of the dead, a role normally assigned to first responders. The collection and proper documentation of the scene and the bodies at the scene, and forensic examinations afterwards, are tasks of the entities of the medicolegal system that are determinant to ensure the dignity of the dead, their identification, and complete documentation and preservation of relevant physical evidence. In this sense, contingency plans that consider the overall process of the management of the dead, from the recovery of bodies to the handover to families and burials in accordance with religious and cultural practices, are essential for the prevention and addressing of issues of humanitarian concern during emergencies.

Information management and the medicolegal system

Medicolegal investigations are case-management-based, for which information management systems (IMS) are required. Medicolegal systems and their entities have the responsibility to develop and implement IMS for the effective resolution of cases. IMS put in place by medicolegal entities also allow and encourage the coordination, communication and cooperation⁴¹ required to effectively address and resolve issues of humanitarian concern.

The responsibilities of the medicolegal system and, concretely, of forensic institutions related to data collection and information management are also relevant in policy-making and State strategies of crime prevention and public health.⁴² Data on the medicolegal aspects of injuries and deaths, if consolidated and analyzed properly, provides relevant information on the behaviour of violence; this supports policy and law development for the protection and well-

39 Global Compact for Safe, Orderly and Regular Migration, UN Doc. A/RES/73/195, 11 January 2019, Objective 8.

40 ICRC, *Counting the Dead: How Registered Deaths of Migrants in the Southern European Sea Border Provide Only a Glimpse of the Issue*, Geneva, November 2022, available at: www.icrc.org/en/document/counting-dead-icrc-report-migrants-dying-europe-borders.

41 S. Breau and R. Taylor, above note 34, p. 64.

42 Olga Joos, Srdjan Mrkic and Lynn Sferrazza, “Legal Frameworks: A Starting Point for Strengthening Medicolegal Death Investigation Systems and Improving Cause and Manner of Death Statistics in Civil Registration and Vital Statistics Systems”, *Academic Forensic Pathology*, Vol. 11, No. 2, 2021, available at: <https://doi.org/10.1177/19253621211027747>.

being of the population, and is also a good source of data for better understanding issues in which the lives or personal integrity of individuals are being put at risk and the root causes of these issues (for example, their linkage with armed conflict), and hence being able to develop better strategies and projects.⁴³

In international armed conflict, IMS are also essential to fulfilling obligations of the parties to account for protected persons – including the dead – in the hands of the enemy, to prevent them from going missing, and to inform families of their fate and whereabouts. As per the Geneva Conventions, parties to the conflict should establish a National Information Bureau (NIB) which will enable the receiving and transmitting of information to allow parties to be notified of protected persons held by the other party, to provide information on the deceased and to enable rapid notification of families.⁴⁴ The main functions of the NIB are collecting and centralizing information, transmitting information to the Central Tracing Agency, receiving and responding to enquiries, and collection and forwarding of personal belongings.⁴⁵ For the case of missing and deceased persons, these functions are part of the responsibilities of the entities of the medicolegal system and of the armed forces. All information pertaining to burial or cremation of the deceased (exact location and markings of graves, together with particulars of the dead interred therein) must be registered and exchanged by the OGRS through the NIB. The collection and management of this information is also within the realm of the medicolegal system.

Extensive humanitarian efforts and their challenges

In general, the capacity of a State to respond to violence and emergencies is determined by the capacity of local systems to function and their resilience. National implementation of obligations derived from bodies of international law is the responsibility of States and requires coordinated structures, procedures and mechanisms.⁴⁶ For actions towards missing and deceased persons and their families, the State response is determined by the capacities and effectiveness of the medicolegal system. Even when special or extraordinary mechanisms are created, as is often the case with the issue of missing persons, unless they are completely independent (including in their forensic capacities), they necessarily interact with and rely on one or more entities of the medicolegal system,

43 M. Warner and P. A. Braun, above note 13, p. 14.

44 Geneva Convention (III) relative to the Treatment of Prisoners of War of 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950), Art. 122; Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1950), Art. 136.

45 ICRC, “Overview of the Legal Framework Governing National Information Bureaux”, April 2022, available at: <https://shop.icrc.org/overview-of-the-legal-framework-governing-national-information-bureaux-pdf-en.html>.

46 See ICRC, above note 3. See also Alexandra Ortiz and Ximena Londoño, “Implementing International Law: An Avenue for Preventing Disappearances, Resolving Cases of Missing Persons and Addressing the Needs of Their Families”, *International Review of the Red Cross*, Vol. 99, No. 2, 2017.

principally entities that provide forensic services.⁴⁷ Factors such as the level of preparedness, available resources, infrastructure, governance effectiveness, procedures in place and coordination mechanisms all have an impact on the functionality of the medicolegal system, affecting the State response. Like any other system, even well-functioning medicolegal systems, during a crisis, might break or be rapidly overwhelmed, making it impossible or difficult for them to function and adapt in an effective manner.⁴⁸ Conflict and disasters happen regularly, leaving little opportunity for the system to make the necessary adjustments to their contingency plans, to have sufficient prepared teams and to respond adequately to the needs of affected families and communities.⁴⁹ In the case of protracted crisis and chronic situations of violence, the humanitarian consequences are also related to the capacity of the medicolegal system to adapt and respond.

In addition to the above-mentioned factors, contemporary forms of armed conflict and violence, as well as natural disasters and massive migration that continue to cause immense suffering around the world, represent additional challenges and impact the capacity of the system to respond. Armed conflicts used to be confined to battlefields, but today they often take place in urban areas and merge with criminality.⁵⁰ They frequently take place in densely populated areas, with military objectives surrounded by the civilian population, very often also affecting communities that already have limited essential services, taking humanitarian consequences to another level.⁵¹ International law and domestic legislation face important challenges for implementation and are not being respected – or, what is worse, are completely ignored.⁵² Contemporary armed conflicts and other forms of violence involve no single or isolated battle but multiple events, with indiscriminate and disproportionate attacks,⁵³ and fighting between non-State or other organized armed groups often leads to massacres. Likewise, natural disasters and massive migration continue to cause high death tolls.

47 In Colombia, for example, the peace agreement led to the creation of multiple transitional justice mechanisms, including a Truth, Coexistence and Non-Repetition Commission, a Special Jurisdiction for Peace and a Unit for the Search for Missing Persons. They all rely heavily on the work of the forensic services/institutions of the country to fulfil their role regardless of criminal or humanitarian objectives. See also M. Crettol *et al.*, above note 28; A. Ortiz and X. Londoño, above note 46, p. 564.

48 ICRC, above note 4.

49 Claudia McGoldrick, “The State of Conflicts Today: Can Humanitarian Action Adapt?”, *International Review of the Red Cross*, Vol. 97, No. 900, 2015, p. 1182.

50 Laurent Gisel, Pilar Gimeno, Ken Hume and Abby Zeith, “Urban Warfare: An Age-Old Problem in Need of New Solutions”, *Humanitarian Law and Policy Blog*, 27 April 2021, available at: <https://blogs.icrc.org/law-and-policy/2021/04/27/urban-warfare/>.

51 C. McGoldrick, above note 49, p. 1186.

52 ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, Geneva, 31 October 2015, available at: www.icrc.org/en/document/international-humanitarian-law-and-challenges-contemporary-armed-conflicts. See also the main challenges in the African continent in relation to fulfilment of IHL obligations, in Namira Negm, “The African Union’s Humanitarian Policies: A Closer Look at Africa’s Regional Institutions and Practice”, *International Review of the Red Cross*, Vol. 104, No. 920–921, 2022, available at: <https://international-review.icrc.org/sites/default/files/reviews-pdf/2022-11/the-african-unions-humanitarian-policies-920.pdf>.

53 ICRC, *Explosive Weapons with Wide Area Effects: A Deadly Choice in Populated Areas*, Geneva, January 2022.

Despite the efforts of international actors, it remains difficult for States to implement given recommendations and/or to take the necessary actions, as this requires a wide range of measures, and the needs of affected populations remain unaddressed; new conflicts and emergencies have proven that further efforts – for instance, in prevention and preparedness – are required.⁵⁴ To add to the discussion of why this happens, this section looks at two aspects: on the one hand, the functionality of medicolegal systems, and on the other, the approach of humanitarian programmes, not only at the operational level but also at the level of humanitarian dialogue and diplomacy.⁵⁵

Dysfunctional medicolegal systems

The main requirements for the medicolegal system to properly function are summarized in Figure 1. Additional elements also important for the functioning of the medicolegal system, in particular related to the administration of justice, have not been considered in this article.

In most contexts facing problems of humanitarian concern related to affected populations, such as undignified management of the deceased, high numbers of deceased persons unidentified, large caseloads of missing persons and lack of proper investigation of possible violations of human rights, the medicolegal system faces important challenges for its proper functioning.⁵⁶ Sometimes, despite strong entities at the judiciary or law enforcement levels, forensic institutions are weak or non-existent.⁵⁷ At times, despite well-structured medicolegal systems, the workload overwhelms the institutional capacities,⁵⁸ which in the absence of proper quality assurance systems results in mistakes that often add up to a lack of trust from families and low credibility of State authorities.

Lack of the required support by government officials, sometimes due to limited understanding of the role of the medicolegal system in the response to humanitarian needs, is very often an important challenge. At the operational level, there are also other factors, linked to the nature of events, that affect the

54 See, for example, Antonio Guterres, *The Highest Aspiration: A Call to Action for Human Rights*, UN, 2020, available at: www.un.org/en/content/action-for-human-rights/index.shtml.

55 Maria Dolores Morcillo Mendez, “Evolución de la acción forense humanitaria del Comité Internacional de la Cruz Roja hacia el desarrollo e implementación de programas sostenibles”, *Proceedings of the 13th International Congress of Forensic Pathology*, La Rioja, Spain, 19–22 October 2022.

56 This is an observation based on twenty years of ICRC humanitarian forensic action in over fifty countries in all regions, where assessments of the medicolegal system have been conducted as part of forensic programmes.

57 This is, for example, the case in Lebanon, where the lack of proper forensic institutions for conducting post-mortem and clinical forensic examinations is a major obstacle in the implementation of any effort towards prevention and promotion of human rights, particularly in relation to missing persons, management of mass fatalities, medicolegal investigations of allegations of ill-treatment, and deaths in custody. See Ikram El Shaer, “Forensic Medicine in Lebanon: Illegitimate!”, *Al-Akhbar*, 29 April 2010, available in Arabic at: https://al-akhbar.com/Archive_Justice/114948.

58 For example, this is the case with the recent armed conflict in Ukraine, where a well-structured medicolegal system (judiciary, law enforcement and forensic institutions) is completely overwhelmed. Another example is Colombia, where the combined entities of the medicolegal system cannot cope with the excessive workload despite proper regulations and procedures being in place.

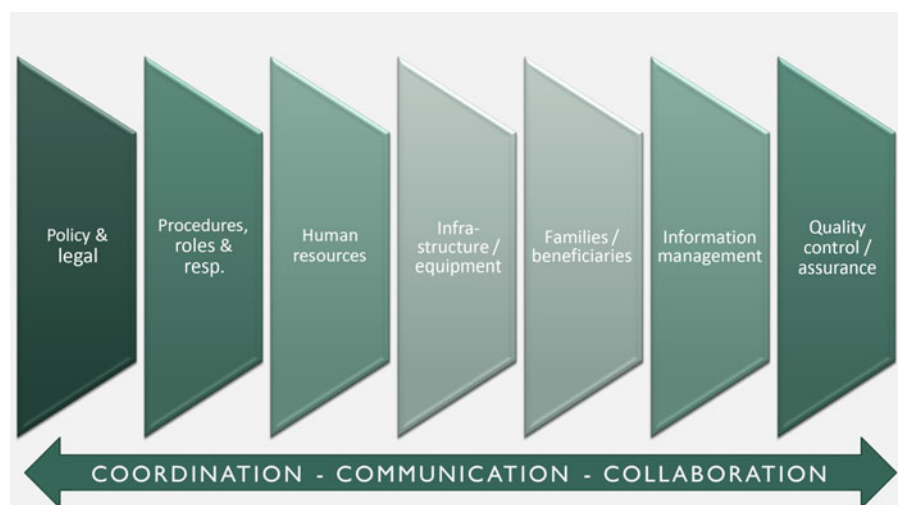


Figure 1. Requirements for the proper functioning of the medicolegal system.

functionality of the system – for example, limited or non-existent access of State entities, be it for geographical reasons or because the area is under the control of non-State or other organized armed groups. The type of weapons and ammunition used in contemporary conflicts⁵⁹ affects not only the safety of operations but also the injuries and state of preservation of bodies, which, besides the impact on the identification process, further adds to the pain and suffering of families.

Gaps and challenges of the medicolegal system

This section presents some of the main gaps and challenges of the medicolegal system that ultimately have an impact on the functioning of that system, and therefore on States' response to emergencies, their fulfilment of international law and their ability to address the relevant humanitarian needs of affected populations.⁶⁰

Lack of policy and regulations

Matters related to maintaining the dignity of the dead and respect towards their families, emergency preparedness, and missing persons should be included in public policy, in order to ensure that corresponding legal frameworks are adapted or developed to guarantee, amongst other aspects, allocation of funding and the

⁵⁹ C. McGoldrick, above note 49, p. 1182.

⁶⁰ M. D. Morcillo Mendez, above note 55.

development of institutional procedures.⁶¹ Public policies very often refer only to the administration of justice, and due to lack of understanding or recognition of the role of forensic sciences in justice administration, the benefits of such policies are received only by the judicial and law enforcement entities. In terms of regulations, criminal codes and criminal procedure codes often create overlaps or duplication of functions, impeding forms of communication and sharing of information, which is essential for case management and case resolution. For example, law enforcement entities do not provide the required information about the search and recovery of human remains to forensic institutions that will conduct examinations, because the criminal procedure code states that this is confidential information not sharable with entities outside law enforcement. Another example is the large number of unidentified deceased persons and skeletonized human remains piled up in mortuaries because there is not enough clarity about who is ultimately responsible for issuing the final identification report that would allow the relevant actors to proceed with the final disposition of the bodies or the handover to the respective families. When there is clarity about which entity is responsible for the identification report, it lacks the expertise necessary to issue such a report. Having clear roles for judicial, law enforcement and forensic entities in the regulatory framework not only increases the number of cases solved, but also speeds up the process.⁶² Bylaws or other instruments fail to regulate this, as well as other aspects required for the proper flow of information in the overall procedure of the management of the deceased or the search for missing persons. Also, frequently, forensic institutions exist or operate without proper frameworks to ensure that they are given the autonomy, independence and financial resources required.⁶³

Lack of procedures

The issue of lack of procedures includes both procedures related to inter- and intra-institutional processes and, at a more technical level, standard operating procedures (SOPs). At times, institutions have developed extensive SOPs covering most of the forensic/criminal processes, but less or none for regulating procedures that involve different departments of the same institution or between entities. For example, in the identification process, it is not enough to have procedures for genetic

61 Monica Liliana Barriga Perez, “The Search for the Missing from a Humanitarian Approach as a Peruvian National Policy”, in R. Parra, S. C. Zapico and D. H. Ubelaker (eds), above note 37.

62 In some countries the final identification relies on law enforcement entities, while in others it relies on the judiciary. A great number of cases in these contexts remain unsolved because law enforcement and judicial practitioners lack the forensic expertise necessary to establish the scientific identification of an individual. See National Commission for the Search for Missing Persons, *Recomendaciones para mejorar el proceso de identificación de víctimas*, Bogotá, October 2011, available at: www.comisiondebusqueda.gov.co/images/abook_file/Recomendacionesprocesoidentificacion.pdf.

63 *Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions on Medico-Legal Death Investigations*, UN Doc. A/HRC/50/34, 16 June 2022. See also *Interim Report of the Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*, UN Doc. A/69/387, 23 September 2014.

matching and DNA processing. DNA tests do not conclusively determine the identity of an individual; rather, it is the analysis and comparison of all the lines of evidence produced by different disciplines and institutions that determines the confirmation or exclusion of the identity of an individual.⁶⁴ The identification process of a given caseload includes procedures for collection and sharing of information, and when not properly regulated, these processes can affect the overall success rate of identifications. Another example is the collection and safeguarding of dental information by odontologists. Dental clinics and examination centres may have procedures in place for the recording of dental information from their patients, but these procedures are often not properly regulated or not mandatory; hence, this information is unavailable when needed during identification processes for mass fatalities. Ensuring dignified and proper final disposition of unclaimed and unidentified human remains, including regulations for burial and registration at cemeteries, is another example of procedures that, if they exist, are not implemented because they are not mandated by law.

While putting procedures in place would suffice and further legal frameworks wouldn't need to be developed, certain procedures elevated to regulations can protect the functioning of the system from bureaucracy and corruption and encourage coordination and interaction. Ideally, technical details could remain at the level of SOPs, but experience in various countries shows that regulations end up being the most appropriate way to ensure there are no legal loopholes and the system functions properly. For instance, when there is a mechanism outside the medicolegal system to search for missing persons that necessarily interacts with entities of the medicolegal system, the obligatory nature of certain procedures in the identification process would ensure that they are properly implemented. There needs to be a connection between the technical, scientific nature of these processes and the legal frameworks, as well as management decisions at a higher level.⁶⁵

Additionally, procedures for quality control and assurance also provide consistency and enhance confidence in the overall work of the medicolegal system. This has an impact on the overall administration of justice (including ensuring judicial guarantees), contributes to transparency and helps to build trust by affected communities.

Lack of resources

Allocation and distribution of funding for the functioning of medicolegal systems, especially forensic institutions, is in almost all contexts within humanitarian operations not a priority and not included in national development plans. The cost of forensic operations or emergency response, for example, needs to be properly considered in the allocation of funding. The few positive examples in

64 M. Salado Puerto *et al.*, above note 21, p. 11.

65 M. Crettol *et al.*, above note 28.

this regard are the result of decades of advocacy and awareness-raising, amongst high-level decision-makers, on the importance of the role of forensic institutions in crime investigations and prevention and in the State response to issues of humanitarian concern.⁶⁶

Insufficiency of human resources, in terms not only of numbers but also of skills, is always an issue. The complexity *per se* of the response and of the nature of the events requires specific knowledge and a multidisciplinary approach. This is specifically very relevant in the case of managing emergencies and large-scale caseloads, which are highly complex matters in need of qualified experts, including in aspects beyond technical or scientific expertise, such as leadership, management and governance. There are already various efforts being undertaken by many agencies, mainly international organizations, aimed at training and building local capacities. Similarly, efforts to involve academic circles in the development of programmes that include topics in humanitarian law and structured forensic curricula exist, but if the other challenges remain present, there is very little that capable human resources alone can do, and the system will continue to fail.

Lack of infrastructure and equipment is another challenge that results in inadequate working conditions. In the case of infrastructure, limitations relate not only to mortuaries and laboratories but also to storage, burial places and cemeteries, office space, interview and examination rooms, courtrooms, and other areas where families and other beneficiaries receive and provide information. It is also worth mentioning that as today's armed conflicts increasingly involve attacks on infrastructure,⁶⁷ the essential infrastructure of the medicolegal system is also compromised.⁶⁸

Beneficiaries of the system and families are not being properly involved in medicolegal processes

The importance of the participation of families and beneficiaries, and that information is provided to them, is frequently underestimated and neglected, and this adds up to a lack of trust on the part of families and victims towards the medicolegal system. Most of the recommendations from international organizations refer to the importance of putting families at the centre. Regulations and SOPs need to allow for families to play their corresponding role in aspects such as provision of information in both directions and, in certain cases, being properly involved in decision-making processes. However, if the

66 For example, Spain has included the strengthening of forensic services in the country's Plan Justicia 2030, aimed at improving the overall administration of justice, available at: www.justicia2030.es/inicio. More recently in Peru, as a result of the outcome of an assessment of the medicolegal system and procedures of the extraordinary mechanisms for the search for and identification of missing persons, the current government has approved specific support to improve the system by strengthening forensic services at various levels.

67 C. McGoldrick, above note 49, p. 1183.

68 In various contexts, mortuaries and examination rooms are located within hospitals; destruction of health infrastructure therefore also has an impact on the provision of forensic services.

other challenges remain, States will be limited in their ability to implement these recommendations fully.

Lack of information and information management systems

Medicolegal investigations involve the management of large amounts of data, and the effectiveness and efficiency of the system is directly linked to the proper collection, creation, processing, analysis, sharing, use, archiving/destruction, delivery etc. of this data, in accordance with scientific principles, given the nature of medicolegal processes.⁶⁹ The challenges in information and information management include aspects related to the quality, quantity and availability of the information to the different entities involved. This is in most cases the result of a lack of standardized procedures or because there are no proper legal or other frameworks that facilitate or allow the information to be shared or transferred between the different entities. Limitations in resources and technology also prevent entities from developing proper IMS, making case management difficult or impossible.

Fragmented approach of humanitarian programmes

In recent years and in response to the evolving operating environment, humanitarian actors have identified the need to employ a systemic approach in their operations, amongst other adjustments.⁷⁰ In the case of the humanitarian needs of the population groups that this article refers to, the medicolegal system should be the focus of an integrated, holistic and systemic approach. Perhaps this approach and efforts to build resilience⁷¹ have been better implemented in areas related to essential services because the State system responsible for these areas is easily identified (health system, water systems etc.). By contrast, in issues of protection (missing and deceased persons, access to relevant documents⁷² and medicolegal services), the medicolegal system has not been clearly targeted as the “system” responsible, and instead entities have been approached separately.

In humanitarian action, the narrative of the protection dialogue advocates and reminds States of their IHL and IHRL obligations. This includes important observations and recommendations for developing policies, regulations and procedures, although these remain focused on *what* States need to do, but less on *how* this can be done or how it should translate into concrete actions. At the

69 Diana Emilce Ramírez Páez, “Integration of Information on Missing Persons and Unidentified Human Remains: Best Practices”, in R. Parra, S. C. Zapico and D. H. Ubelaker (eds), above note 37, p. 159.

70 “Q&A: The ICRC and the ‘Humanitarian–Development–Peace Nexus’ Discussion”, *International Review of the Red Cross*, Vol. 101, No. 912, 2019, p. 1057. See also ICRC, above note 4, p. 15; C. McGoldrick, above note 49, p. 1195.

71 ICRC, *When Rain Turns to Dust: Understanding and Responding to the Combined Impact of Armed Conflicts and the Climate and Environment Crisis on People’s Lives*, Geneva, 2020, available at: <https://shop.icrc.org/when-rain-turns-to-dust-pdf-en.html>.

72 Such documents include death certificates, kinship statements, age estimations and others that are required for many legal and administrative processes.

operational level, actions focus on capacity-building and providing technical guidance and assistance; this is needed and beneficial, but the overall and long-term impact will remain minor if the medicolegal system is not approached as a whole and political decisions are not taken to strengthen its functioning, including with regard to the need to allocate funding and put regulations in place.⁷³

International and local actors often promote the creation of extraordinary mechanisms to address the issue of missing persons, but fewer efforts are put into the strengthening of the medicolegal system that is ultimately in charge of the operational aspects of the given mechanism.

The need to have stronger medicolegal systems remains undiscussed in relevant regional and international platforms created to raise awareness and advocate for issues of humanitarian concern. The dialogue at the political level may lack substantial content in the arguments to better influence and sensitize high-level politicians and decision-makers on the importance of the contribution of the medicolegal system for the State to be able to fulfil its international law obligations in the prevention of and response to humanitarian problems. Even when political will is supportive, translating given recommendations into concrete actions remains challenging for State authorities and national IHL committees.⁷⁴

As an example of the fragmented approach, some efforts are focused on determining if the legal framework is insufficient or non-existent, or if it requires reforms or new laws⁷⁵ – however, the functionality of the medicolegal system relies not only on legal frameworks but also on other components that need to be addressed (e.g., procedures, proper working conditions, human resources and community involvement). Humanitarian programmes may approach these aspects, but this is done in a fragmented manner, lacking an integrated, systemic approach. The result is a set of recommendations for States to create or adapt legal frameworks, but it will be very difficult for the law to be implemented if the challenges and gaps at other levels within the medicolegal system have not been addressed jointly. Similar difficulties are faced by extraordinary mechanisms or commissions for the issue of missing persons, where the mechanism *per se* has been established or created without properly considering the operational aspects and entities of the medicolegal system, particularly the forensic institutions with which it interacts necessarily.⁷⁶ Beyond the question of whether a coordination

73 Alexandra Ortiz and Ximena Londoño, above note 46, provide a comprehensive summary of the different actions supporting States in their efforts to prevent and respond to the issue of missing persons. However, as will be discussed in the next sections of this article, challenges for States remain, and these already existing forms of support do not seem sufficient to bring about a decrease in humanitarian needs.

74 For more information and a full list of national IHL committees across the world, see ICRC, “Table of National Committees and Other National Bodies on International Humanitarian Law”, 26 April 2022, available at: www.icrc.org/en/document/table-national-committees-and-other-national-bodies-international-humanitarian-law.

75 A. Ortiz and X. Londoño, above note 46.

76 Examples of these are the regulations that established mechanisms for missing persons in Sri Lanka, Kosovo and Peru. These regulations, when discussing operational aspects, refer to the “local entities or bodies” mandated by law to conduct forensic activities. Dysfunctionality, lack of required expertise and challenges facing local forensic services determine the outcome of the mechanism. In some examples showing better rates of success in the clarification of the fate and whereabouts of missing persons, such as in Bosnia and Herzegovina, the law has considered operational aspects and has established a

mechanism is needed or not, there is the fact that these mechanisms rely on the local medicolegal system to fulfil their objectives. No matter how well structured a national or international mechanism for missing persons might look, if the local medicolegal system and particularly forensic entities are not functional, the mechanism ultimately fails.⁷⁷

More recent projects and publications providing guidance and advice to States on improving their response to humanitarian problems⁷⁸ include detailed recommendations, most of them related to the medicolegal system. However, the implementation of these recommendations remains a challenge for most States.⁷⁹ This can be explained by the presence of a non-functional medicolegal system, sometimes with non-existent forensic institutions, or by the fact that high-level State decision-makers require further guidance and advice on what is concretely required for the implementation of these recommendations and to ensure correct articulation between policy actions and operational aspects.

Other efforts include building or improving local capacities, referring to human resources and perhaps strengthening institutions. The entities of the medicolegal system usually belong to different ministries, resulting in actions being taken in an isolated manner by each ministry. For example, despite the fact that the revised versions of the Minnesota Protocol⁸⁰ consider the role of the different entities of the medicolegal system and provide recommendations for coordination, cooperation and communication to enhance the functionality of that system, efforts for their implementation remain at the operational or technical level, focusing on institutional capacities (training, assistance) and less on the functioning of the system (regulations, interagency procedures, financial resources, etc.). Unfortunately, without considering the systemic approach, humanitarian action may become irrelevant and/or unwittingly contribute to the malfunctioning of the system. It is important to note that the systemic approach refers not to supporting all entities individually but to strengthening the functioning of the system, and that this includes important aspects related to coordination, communication and cooperation which go beyond the functioning of each entity alone.⁸¹

specific, independent, autonomous institution to conduct forensic work. In other cases, such as in Colombia or Ukraine, regulations on the different mechanisms for missing persons rely on local forensic services, but despite being strong and well-structured, these mechanisms' capacities are overwhelmed and they have not received the financial and other resources required to operate effectively. See the ICRC National Practice Database, available at: <https://ihl-databases.icrc.org/en/national-practice>.

77 Contexts such as Peru, Colombia and Ukraine have developed laws and created different mechanisms to approach the issue of missing persons. The functionality of the respective medicolegal systems and forensic capacities vary amongst these three contexts, but all of them face important gaps and challenges that greatly limit the effectiveness of the mechanisms.

78 See, for example, ICRC, *Guidance Notes: National Mechanisms for Missing Persons: A Toolbox*, Geneva, June 2022, available at: <https://shop.icrc.org/national-mechanisms-for-missing-persons-a-toolbox-pdf-en.html>.

79 M. D. Morcillo Mendez, above note 55.

80 Minnesota Protocol, above note 36.

81 In Colombia, for example, the judicial entities, law enforcement entities and forensic institutions are strong and largely functional, although with limitations in terms of human resources. Despite this, the

In the case of emergency preparedness and response, efforts highlight the importance of developing robust contingency plans. Support is provided by multiple humanitarian and development actors, targeting for obvious reasons the most pressing needs, the saving of lives and the provision of essential services. Management of the dead and providing support to the families of missing persons do not receive the same attention, and the entities of the medicolegal system are often not considered in the international support to State emergency preparedness and response plans.⁸² This has an impact in budget allocation, in coordination with other entities, in information management etc., resulting in legal obligations towards the dead and their families not being fulfilled, which ultimately translates into undignified management of deceased individuals, improper search for missing persons and lack of answers for their families.

There are different legal, law enforcement and forensic community platforms or settings where discussions take place, but these remain isolated and lacking in an integrated approach to addressing a multidisciplinary/multi-agency audience. Discussions start to seem repetitive, or like they are going in circles, because interaction with other key components of the medicolegal system does not take place. For example, the forensic community holds several local, regional and international meetings throughout the year, including the highest-level forensic authorities, but the discussions remain at this level, with little possibility for the overarching problems to be resolved because this requires dialogue with equally high-level judicial and law enforcement authorities and sometimes higher-level decision-makers. Higher-level decision-makers usually do not participate in these discussions due to the assumption that they are too technical; hence, the actions required to strengthen the system are barely acknowledged.

Humanitarian forensic action

Acknowledging and recognizing the need to apply forensic sciences and investigative methods to efforts to prevent and respond to issues related to missing and deceased persons,⁸³ the ICRC created its Forensic Unit in 2004.⁸⁴

search for and identification of missing persons face important challenges pertaining to the overall functioning of the system.

82 Most of the relevant humanitarian actions address first responders for the recovery of the dead and give less or no support to the other phases of the process.

83 Morris Tidball-Binz, "Global Forensic Science and the Search for the Dead and Missing from Armed Conflict: The Perspective of the International Committee of the Red Cross", in Douglas H. Ubelaker (ed.), *Forensic Science: Current Issues, Future Directions*, 1st ed., John Wiley & Sons, Hoboken, NJ, 2012, p. 337.

84 The Forensic Unit was initially created in 2004 to follow up on the implementation of the conclusions and recommendations pertaining to the management of the dead of the Missing Persons Conference in 2003. As the understanding of the search for missing persons process has improved, the objectives of the Forensic Unit have also evolved to include (1) ensuring that investigative and forensic methodologies are applied in the institutional search for missing persons and in the management of the dead, and (2) providing advice and technical support for the strengthening of medicolegal systems. However, as will be discussed in the following sections of this article, further efforts are required to ensure that this strengthening takes place at all levels for the desired impact on the prevention and resolution of issues of humanitarian concern.

The aim was to follow up on relevant recommendations of the International Conference on Missing Persons and Their Families of 2003. In this sense, the Forensic Unit of the ICRC has developed programmes to ensure the implementation of these recommendations, as well as all activities related to the protection of the deceased as per IHL. The use of forensic sciences in resolving issues of humanitarian concern gave birth to the discipline of humanitarian forensic action (HFA).⁸⁵ This term was first defined by the ICRC as the application of forensic sciences to humanitarian action.⁸⁶

There has been a noticeable increase in international cooperation, capacity-building and opportunities for research and development in the field of HFA. A growing number of countries that are affected by humanitarian tragedies and have developed their forensic capacity accordingly are becoming involved in regional and international forensic cooperation, offering their forensic experience and resources to advise, train and support the medicolegal entities of other countries. There is also growing understanding on the part of those offering forensic assistance that local forensic capacity-building requires shifting from models of substitution towards effective transfer and exchange of knowledge, technology and tools, especially for those working in under-resourced contexts.

Forensic programmes have been and continue to be fundamental to all the efforts of humanitarian and other actors in advocating and supporting States in fulfilling their IHL and IHRL obligations related to the clarification of the fate and whereabouts of missing persons, in preventing disappearances, in situations of reunification of families (e.g., when there is a need to establish biological kinship between parents and children) and in the management of the deceased, including when death occurs while in detention or in the custody of State authorities. The role of forensic sciences is recognized today as going beyond supporting criminal investigations, administration of justice and humanitarian purposes, to also include security dimensions and the establishment of peace processes.⁸⁷

The notion of HFA has evolved and can be defined today as the application of forensic sciences and investigative principles to efforts that seek to protect the dignity and life of victims of disasters, armed conflict and other situations of violence. HFA seeks to alleviate suffering and provide assistance through direct action and/or by strengthening the State's medicolegal system.⁸⁸ There is still a need to incorporate this systemic approach in a comprehensive and integrated manner when developing and implementing humanitarian and development strategies. Equally important is the need to bring these concepts higher up in the protection dialogue and humanitarian diplomacy efforts.⁸⁹

85 Stephen Cordner and Morris Tidball-Binz, "Humanitarian Forensic Action – Its Origins and Future", *Forensic Science International*, Vol. 279, 2017.

86 *Ibid.*, p. 65.

87 Jemmy T. Bouzin *et al.*, "Mind the Gap: The Challenges of Sustainable Forensic Science Service Provision", *Forensic Science International: Synergy*, Vol. 6, 2023, available at: <https://doi.org/10.1016/j.fsisyn.2023.100318>.

88 M. D. Morcillo Mendez, above note 55.

89 A recent positive example in this regard is the creation by the ICRC of the African Centre for Medicolegal Systems (ACMS). The ACMS aims at the strengthening of medicolegal systems and forensic institutions as

Strengthening medicolegal systems and humanitarian action

The need to increase efforts to support States in building strong systems that can act when required to prevent and address the problems of affected people even before a conflict or disaster takes place has been acknowledged by humanitarian leaders.⁹⁰ The ability of States to ensure that the deceased are treated with dignity and to prevent people from going missing during large-scale emergencies is strongly determined by the procedures in place for the management of the deceased, search processes and information management.⁹¹ The clarification of the fate and whereabouts of those unaccounted for and the response to the right to know of their families requires States to have a well-functioning medicolegal system in place.

When discussing the actions required to improve humanitarian support, Hugo Slim notes in his book *Solferino 21* that humanitarian action needs to change from focusing solely on helping individuals in need to supporting local organizations.⁹² The African Union's humanitarian policies also highlight the importance of improving the capacity of regional and national institutions for humanitarian prevention and response.⁹³ For the issues of humanitarian concern to which this article refers, local organizations and institutions are the primary entities of the medicolegal system. For humanitarian action to have a sustainable impact,⁹⁴ it should aim at strengthening the system in a comprehensive and systemic manner and all efforts, including from development actors,⁹⁵ should be

an essential component of the overall required actions in Africa for States to respond to the extreme humanitarian needs of affected populations in this continent. The goal of the ACMS is to improve advocacy and humanitarian diplomacy efforts amongst relevant fora by informing policy-makers, improving the professional response of practitioners in medicolegal systems, and exchanging lessons learned and best practices by convening regional events and coordinating and collaborating with African and international policy and practice communities. See ICRC, "African Centre for Medicolegal Systems", available at: <https://missingpersons.icrc.org/acms>.

90 Speech given by ICRC President Mirjana Spoljaric at the Graduate Institute, Geneva, 28 November 2022, available at: www.icrc.org/en/document/international-humanitarian-law-in-divided-world.

91 M. Salado Puerto *et al.*, above note 21. See also ICRC, above note 35.

92 Hugo Slim, *Solferino 21: Warfare, Civilians and Humanitarians in the Twenty-First Century*, C. Hurst & Co., London, 2022.

93 N. Negm, above note 52, p. 1924.

94 See "Q&A", above note 70, p. 1062. In this interview, ICRC policy adviser Filipa Schmitz Guinote defines sustainable impact as a "situation where long-term or chronic needs and protection-related risks arising from armed conflict and chronic violence are durably reduced or prevented. Importantly, this should be done by supporting the resilience of affected people and the essential services and systems they rely on, but also through the actions of duty bearers." In a recent interview, Peter Maurer, former president of the ICRC, also emphasizes the "importance of building bridges to other societal agendas, aspirations and constituencies: humanitarian work as much as it has to be rooted in neutral and impartial action needs also to be connected to efforts for peace, human rights development and climate change". See "Interview with Peter Maurer", above note 1, p. 1516.

95 See "Q&A", above note 70, p. 1062. Here, Filipa Schmitz Guinote refers to the need for the "triple nexus" interaction in order to achieve sustainable impact, "because impact is not achievable through humanitarian action alone – it requires and relies on decisions and choices made by authorities and by political, diplomatic and military stakeholders, as well as by development donors with the power and responsibility to bring about development and peace". Schmitz Guinote also explains how the transition from humanitarian aid to development actions is not linear, and that both forms of aid must occur simultaneously and in a coordinated manner for the required sustainable impact. This is particularly relevant in the case of protection programmes.

connected and properly articulated. Legal components (policy and regulations) and technical components (procedures, capacities and working conditions) need to be considered holistically and simultaneously; promoting parallel or extraordinary mechanisms which drain the resources of countries that already struggle to respond to humanitarian needs should be avoided.

For instance, in the resolution adopted by the UN General Assembly every two years since 2003 that calls upon States to take measures to prevent people from going missing, the notion of forensic capacities has always been mentioned, but it is only in the last two versions (2019 and 2021) that the concept of medicolegal systems has been introduced, and in all cases this is limited to aspects pertaining to the management of the dead. As summarized by Crettol *et al.*:

Authorities should take advantage of recent advances in humanitarian forensics when setting their priorities, should ensure a proper system is in place to take care of the dead and identify human remains, and should not hesitate to seek technical assistance in order to move forward in their search for answers on the missing.⁹⁶

Other recommendations from international organizations, specifically the UN through the Human Rights Council and Special Rapporteurs⁹⁷ and the judicial resolutions of international courts,⁹⁸ have also evolved to include more concrete actions in relation to the role of forensic sciences and the need to strengthen medicolegal investigations given the proven impact in crime prevention and crime resolution.

A well-functioning system also contributes to building/rebuilding the trust of victims, families and communities in State authorities. Incorporating the concept of strengthening the system and developing programmes based on comprehensive systemic assessments ensures that humanitarian programmes are based on solid assumptions and concrete projects. Also, donors of humanitarian organizations that like to see their funds going to State authorities will be more attracted to this approach.⁹⁹

Final general recommendations

Considering that State authorities have been recognized as primary agents of their preparedness, response and recovery,¹⁰⁰ the following are proposed recommendations to humanitarian actors, but also development actors (at the

96 M. Crettol *et al.*, above note 28, p. 598.

97 Namely the Special Rapporteurs on torture, extrajudicial killings, etc. See UN Doc. A/HRC/50/34, above note 63.

98 Namely the Inter-American Court of Human Rights, the International Criminal Tribunal for the former Yugoslavia and the International Criminal Tribunal for Rwanda.

99 Hugo Slim, "Reflections of a Humanitarian Bureaucrat", *Humanitarian Law and Policy Blog*, 9 January 2020, available at: <https://blogs.icrc.org/law-and-policy/2020/01/09/reflections-humanitarian-bureaucrat/>. See also C. McGoldrick, above note 49, p. 1192.

100 C. McGoldrick, above note 49, p. 1201.

international, regional, and national levels),¹⁰¹ aimed at developing programmes with a systemic approach and sustainable impact to prevent and respond to issues related to missing persons, family separation, mismanagement of the dead and emergency preparedness and response. Indirectly, these will also have an impact on other issues such as ill-treatment and sexual violence.

- **Bring the need to strengthen the medicolegal system higher up in political/diplomatic agendas.** When advocating, influencing and promoting respect for and implementation of IHL, IHRL and other relevant international rules, actors should incorporate the notion of strengthening medicolegal systems and particularly of forensic services given their role in States' prevention of and response to issues of humanitarian concern.¹⁰² Raising awareness, engaging with the public and mobilizing actors with concrete advice and recommendations on how to strengthen the system – and why this needs to be done – not only improves understanding by States of the role of the medicolegal system in fulfilling their obligations, but also provides more chances to influence States and allows them to create and maintain an adequate environment. For example, when aiming to mobilize authorities to take all measures to account for persons reported missing, the narrative needs to develop more concrete content and refer explicitly to the strengthening of medicolegal systems at the level of policy, regulations, procedures, capacities and working conditions. The ability to influence is linked to the clarity of the message; as Nicholas Hawton expressed in a recent blog post, humanitarian actors should provide “[a] clear message and a coherent argument”.¹⁰³ Simply advocating for clarification of fate and whereabouts can be vague and perceived as almost impossible to achieve; strengthening the medicolegal system by ensuring that regulations and procedures are put in place and allocation of resources is secured is clear and concrete and a more actionable message. Shifting the message from improving institutional capacity to strengthening the system incorporates the concept of a system that implies functionality, allowing us to better identify the factors that affect the functionality of the system despite sometimes strong institutional capacities. Including the notion of the medicolegal system – with priority given to forensic institutions – and its role in the prevention of and response to issues of humanitarian concern is an innovative narrative linked to sustainable impact, effective prevention and resolving humanitarian needs, while supporting local entities and the resilience of local systems.
- **Include this narrative in fundraising efforts,** be it for overall programmes or to support concrete projects or specific donations that are framed within a systemic approach. While the State can focus its efforts on improving policy, regulations

101 UN, above note 14, p. 19.

102 S. Cordner and M. Tidball-Binz, above note 85.

103 Nicholas Hawton, “The Art of Influencing: How to Maximize Impact in a Complex, Interconnected World”, *Humanitarian Law and Policy Blog*, 8 December 2022, available at: <https://blogs.icrc.org/law-and-policy/2022/12/08/influencing-impact-complex-world/>.

and procedures, international funding or partners can support with training, equipment and infrastructure.

- Building on the experience and positive impact of national IHL committees,¹⁰⁴ **adding specific lines of work aimed at strengthening the medicolegal system and assessing the impact on IHL implementation** would allow for concrete actions to be promoted at the national level, while also serving as a platform for discussions at the regional and international levels to promote lessons learned and best practices. This would help other countries or regions dealing with humanitarian problems for long periods of time. As mentioned by Crettol *et al.*, “[t]here is always great interest from authorities in making known the actions and measures that they take to shed light ... when a link exists between implementing such measures and setting and achieving important political agendas and processes at the national, regional or international level”.¹⁰⁵
- **Develop and implement strategies and humanitarian programmes based on the gaps and challenges of the medicolegal system identified in comprehensive assessments.** Knowledge of the gaps and challenges that are preventing authorities from responding to issues of humanitarian concern, and that are ultimately impeding the State from fulfilling its obligations, shows understanding of the environment and helps build a solid narrative with which to communicate and influence.
- Such comprehensive assessments, from policy and legal frameworks to operational capacities, also allow us to **determine whether a parallel or extraordinary mechanism is necessary** (e.g., national mechanisms for missing persons) or whether it is better to support the local existing system, which, most of the time, is the preferable approach in the long term. In cases where an extraordinary mechanism is in place or will be put in place, the medicolegal system needs to be properly considered in the legal and operational framework of the mechanism. Likewise, all efforts to support existing mechanisms also need to ensure that they are accompanied by the strengthening of the medicolegal system, especially forensic services.
- **Promote a multidisciplinary, multi-agency approach involving all entities of the medicolegal system in an integrated and comprehensive manner.** Comprehensive medicolegal system assessments also allow entities to better identify other key actors, organizations and even communities, to avoid duplication of efforts, and more importantly to integrate their approach towards the strengthening of the system regardless of the ultimate objectives of the different actors in support of States.
- **Professional skills and operational expertise of humanitarian and development organizations should also be improved** in order to be able to develop and implement robust humanitarian strategies/programmes.

104 R. Kitching and A. Quintin, above note 2.

105 M. Crettol *et al.*, above note 28, p. 594.

- Some tools have been developed by different actors to **conduct legal studies**, particularly, but not only, on the issue of missing persons. These efforts, combined with complete assessments of the medicolegal system, help entities to better understand why problems persist despite proper regulations or legislation being in place. Additional legislative checklists¹⁰⁶ and model laws to better regulate medicolegal processes (forensic human identification, mass fatality plans, overall functioning of forensic services) would facilitate the role of States (i.e., national IHL committees) in improving country legislation. In the case of forensic institutions, legal frameworks ensure the necessary autonomy, independence and resources while strengthening the neutrality and transparency of medicolegal investigations, including within humanitarian frameworks.
- **Establish operational partnerships with UN agencies and other development actors.** Humanitarian action needs to leverage development plans and investment,¹⁰⁷ and partnerships have proven to be good practice.¹⁰⁸ Synergies between humanitarian action, development and peace efforts “do not result solely from programmatic partnerships with development or peace actors. Synergies can also come from humanitarian action itself, especially where forward-looking preventive approaches are adopted, and where efforts to convene, mobilize and influence others are given due strategic operational value.”¹⁰⁹

Conclusions

Humanitarian programmes are shifting to a systemic approach aimed at long-term impact and sustainability. Continuing to advocate to States for the respect of IHL and other relevant rules remains essential in the prevention of humanitarian crises and the protection of affected populations. In the context of armed conflict, other forms of violence and disasters, but also in settings of massive migration and internal displacement, the medicolegal system and its main entities – judiciary, law enforcement (the military when applicable) and forensic services – play an essential role in State fulfilment of IHL and IHRL obligations and in the prevention of and response to issues of humanitarian concern, particularly those related to missing persons, prevention of disappearances, and deceased individuals and their families.

Advocacy, persuasion, mobilization and influencing remain important actions in the promotion of international law. Beyond reminding States of their legal obligations, improved content in the dialogue – in national, regional and

106 The ICRC’s Advisory Service has developed legislative checklists which national IHL committees may use to identify areas that need to be strengthened within their State’s domestic legal framework. For additional reflection on the role of IHL national committees, see also R. Kitching and A. Quintin, above note 2.

107 “Q&A”, above note 70, p. 1059.

108 C. McGoldrick, above note 49, p. 1206.

109 “Q&A”, above note 70, p. 1066.

international fora, with high-level decision-makers and influencers, religious leaders, and academic circles – is required.¹¹⁰ While international actors have made extensive recommendations, how to materialize them remains a challenge for most contexts in crisis. This might be due to an isolated, fragmented and non-systemic approach, including when promoting the creation of extraordinary, often parallel mechanisms, on the one hand, or due to non-functional medicolegal systems and weak, sometimes non-existent forensic services, on the other.

Incorporating innovative narratives and actionable content related to the importance and relevance of well-structured and functional medicolegal systems in the implementation of international law and in State prevention of and response to issues of humanitarian concern will improve the quality and impact of the protection dialogue. Strengthening medicolegal systems ensures a proper response to long-term and chronic needs, helps to reduce or mitigate risks, and makes local authorities ready to manage crises when they hit. It also has a positive impact in building, rebuilding and maintaining trust between States, communities, humanitarian organizations and donors.

¹¹⁰ *Ibid.*, p. 1053.