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Human rights violations in Ukraine: the need for forensic investigations

Reports from Ukraine since the start of the conflict in February, 2022, describe a variety of war crimes committed by the Russian armed forces in areas such as Bucha and Izyum, which include torture and summary executions. In November, 2022, the Ukrainian army was also accused of executing Russian prisoners of war. Stories on major media outlets cite witness statements about these crimes, and describe the exhumation of mass graves conducted by local authorities.

Resolution S34/1 of the UN Human Rights Council established Independent International Commission of Inquiry on Ukraine to investigate violations and abuses of rights, violations human international humanitarian law, and related crimes.3 One of its first tasks was to investigate events during late February and March, 2022, in the four regions of Kyiv, Chernihiv, Kharkiv, and Sumy, following a brief period of occupation by Russian armed forces. report produced by the Commission, dated Oct 18, 2022, describes a wide range of violations of human rights and, in some cases, even war crimes.4 As expected, both sides of the conflict have been found responsible, albeit to different degrees. Throughout the report, references are made to witness accounts and findings investigations by local authorities, such as post-mortem examinations and identification of victims following exhumations of graves.

Although the inquiry aims to contribute to the identification of those responsible for these war crimes, it is not enough. On-the-

ground investigations by teams of forensic experts are urgently needed to document the allegations made by witnesses. The Commission mentions "limited resources" in their report. Given the serious nature of this situation, it is hoped that more resources will be allocated to the Commission to conduct these investigations by independent and impartial experts. Similar missions have taken place in the past by multidisciplinary teams composed of archaeologists, anthropologists, pathologists. odontologists, and geneticists. Such multidisciplinary teams must also include members from both Russia and Ukraine. If this inclusion is not possible at the time of investigation. delegations from both countries should be given access to the forensic teams throughout the investigations. Doing so will ensure that the results will be evidence-based and accepted by both parties of the conflict. These arrangements have taken place in the past (see the Committee on Missing Persons in Cyprus) and are feasible in this case also.

The role of the forensic teams will be to exhume remains from individual or graves and examinations to identify any signs of torture and peri-mortem trauma. Biological profile information such as sex and age are also important, as they can indicate the presence of noncombatants among the victims. Identification of each individual is another important aspect of the investigation, as the victim's identity will most likely indicate who was responsible for their death. Funds need to be available for DNA examinations to identify individuals. This type of analysis will also contribute to the humanitarian aspect of the investigation, as it will allow the surviving families to find out the circumstances of their relative's death and give them the opportunity to hold a proper burial. The results of these investigations should also be used to bring those responsible to justice, as has happened in other cases.

The safety of the forensic personnel of course a priority, and the investigations should take place only when it is safe to do so. This can be agreed upon by both sides to the conflict, who will take steps to avoid endangering the lives of investigators. Finally, the graves should be protected as they contain crucial evidence that can only be of use if collected properly by impartial and independent teams of experts. In the well-intentioned individuals have attempted to recover bodies of ones from mass worldwide, which has resulted in loss of evidence 5

Communicating the findings of the official investigations through press releases and reports is also important to aid in the formation of unbiased public opinion. Failure to do so leaves room for rampant propaganda, which will only further fuel the conflict. Science can and should be given the opportunity to play a remedial role in this war.

I declare no competing interests.

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