Humanitarian Forensic: A Noble Approach towards Mankind

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Abstract: *Humanitarian action itself is defined by the ICRC as a range of activities that seek to alleviate human suffering and protect the dignity of all the victims of armed conflicts and catastrophes, carried out in a neutral, impartial and independent manner, free of charge and framed under International Humanitarian Law. The first is now well known: a non-government forensic anthropology organization created in the aftermath of the regime which ruled Argentina between 1976 and 1983, to investigate the whereabouts of the 'disappeared'. The second source of HFA is international law, specifically International Humanitarian Law and Human Rights Law. Without communication with the dead, a fully humanitarian action is impossible. International humanitarian law applies to armed conflicts.*
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I. Introduction

" Humanitarian Forensic Action", is a concept which has been developed by the International committee of the red cross ICRC, it refers to the use of forensic science to address the needs of the victims of armed conflicts and other catastrophes for humanitarian, rather than criminal, purposes.[1]Humanitarian action itself is defined by the ICRC as a range of activities that seek to alleviate human suffering and protect the dignity of all the victims of armed conflicts and catastrophes, carried out in a neutral, impartial and independent manner, free of charge and framed under International Humanitarian Law.ICRC is the only organisation offering forensic assistance exclusively for humanitarian purposes.[2] Indeed, the ICRC is the organisation that has forensic capacity and is using it exclusively for humanitarian purposes. As a result, the organisation is today regarded as an authority in humanitarian forensic action.[1]

Forensic science is a tool which aids in investigation of a crime, mostly involving victims. The larger aspect of forensic science deals with the victim and culprit, when it comes to ICRC, forensic science is primarily used for humanitarian purposes and not for establishing criminal responsibility. This means, for example, using forensic science to prevent and resolve cases of missing persons; to promptly search for and recover the dead in very challenging environments and circumstances; to protect their dignity and help in the identification; and to inform the families about the fate and whereabouts of their deceased loved ones.

The dead and their dignity are clearly protected by the four Geneva Conventions (and those four conventions protect the people laid down by the conventions i.e., wounded or sick person of armed forces, ship-wrecked persons, prisoners of war and civilians of enemy nation should be treated without any adverse discrimination based upon race, sex, nationality or political opinion)[3] and their additional protocols, which require that they are properly recovered, documented, identified and buried. It is today recognisedthat the fulfilment of the obligations towards the dead can only be professionally be ensured with the use of forensic science.[1]

HOW HUMANITARIAN FORENSIC ACTION CAME INTO EXISTANCE:
Organized HFA did not appear spontaneously. Its origins were ordained in two, largely unrelated, places. The first is now well known: a non-government forensic anthropology organization created in the aftermath of the regime which ruled Argentina between 1976 and 1983, to investigate the whereabouts of the 'disappeared'. The Argentine Forensic Anthropology Team (EquipoArgentino de AntroplogiaForense, EAAF) started in the early 1980's to use forensic skills, centered on forensic anthropology, to find and identify some of

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the thousands of victims of the regime. In this unprecedented humanitarian endeavour they were assisted by the American Association for the Advancement of Science, and in particular Dr Clyde Snow who provided the necessary forensic anthropology training. EAAF continues to this day in this work both locally and internationally, and has provided the model for similar developments throughout South America and beyond. EAAF provided the proof that forensic skills could indeed be used to provide answers to questions of importance to families and the surviving population at large. Such answers were previously blocked by the chaos and professional paralysis accompanying contexts racked by conflict, whether internal or international. It is salutary to recall that the original driving force for the creation of EAAF came, not from within the forensic sciences, but from the Grandmothers of the Plaza de Mayo. The organization was founded to find the kidnapped children of those who were imprisoned or who had disappeared (and were disappearing - the organization was founded in 1977) during the military regime which ruled Argentina between 1976 and 1983. The Grandmothers also famously pioneered the use of forensic haemogenetics to help identify their missing grandchildren and helped create the world's first forensic genetic data-bank, established by national law in 1987. The second source of HFA is international law, specifically International Humanitarian Law and Human Rights Law.[2]

WHAT IS THE ROLE OF FORENSIC SCIENCE IN HUMANITARIAN ACTION?

Dr. Morris Tidball-Binz , the Forensic Manager for the ICRC'S new Missing Person Project answered this question beautifully. In his words *"there is a line from the poet Wyston Hugh Auden, which reads as follows: through art, we are able to break bread with the dead, and without communion with the dead, a fully human life is impossible." If you change "art" to "science" and "human life" with "humanitarian action", you get "through science, we are able to break bread with the dead, and without communication with the dead, a fully humanitarian action is impossible",which gets you closer to what forensic science can do for humanitarian work. Again, it is not only about the dead, and when we work for the dead, we work for the living as well. The relatives are a very immediate example, but it goes well beyond that: it touches the core of humanity itself.*[1]

GOALS OF HUMANITARIAN FORENSICS

There are 3 main domains of humanitarian forensics
- Identification of deceased and their dignified disposal along with the proper last rituals
- Caring of the survivors of mass disaster or conflicts.
- Identification of the missing persons and children as well as to assurance their reunion with the family.[2]

THE MOTTO

Trace The Missing, Identify The Dead and Comfort The Living.

CATEGORY	DATA FROM 01-01-2014 TO 31-12-2018
UN-IDENTIFIED DEAD BODIES	2480
MISSING PERSONS	5619

TABLE No. 1:[SOURCE: ZIPNET] for U.P

WHAT IS A MASS DISASTER?

A disaster is defined as an event that causes the serious disruption of the functioning of a community or society over a relatively short duration of time. Definitions of mass disaster vary from country to country. In India a mass disaster is defined as the death of more than twelve individuals in a single event, the fatalities of which exceed the capacity that can be handled by the local resources. It can be either natural or man-made. Natural disasters cause more number of deaths than a man-made disaster making management of the bodies the most difficult aspect.[4]

HUMANITARIAN FORENSICS DURING CONFLICTS

Humanitarian forensic experts also help fractions in armed conflicts fulfil their international obligations towards the dead in battle. In conflict zones where militants are engaged in battles against their own governments, the official rules of war do not apply. In such places, the job of the humanitarian forensic expert involves negotiating the humane treatment of dead bodies, the return of human remains to the families and the honourable disposal of bodies according to the rites of their religion or faith.[5]

ESTABLISHING FATE OF THE MISSING

In each country, it's the responsibility of local forensic experts to use modern tools and techniques to find credible answers about the fate of the missing. It is the right of the loved ones of the missing person to know about what has occurred with their family member. It does not lessen their ordeal but do help in lessen their sufferings. Unlike standard criminal investigations, those aimed at resolving cases of missing persons, alive

or dead, can help people overcome some of the worst suffering that a person can endure: that of not knowing the whereabouts and fate of a missing loved one, or whether that person is alive or dead. If found dead, the certainty of the identity, which the bereaved often require in order to be able to proceed with their mourning, can only be provided by forensic science. Equally important is ensuring that the dignity of the dead is protected throughout, for which forensic science can prove indispensable.[1]

CATEGORY	LAST 24 HOURS	LAST 30 DAYS	LAST ONE YEAR
MISSING	8	137	1896
RECOVERED	0	31	388

TABLE NO. 2 [SOURCE: ZIPNET]; CATEGORY WISE DETAIL AS ON 16-09-19 for U.P FORENSIC TOOLS WHICH AID IN HUMANITARIAN FORENSICS

- Odontology
- Archaeology
- Anthropology
- DNA Profiling
- Onsite DNA profiling through Chip DNA
- Skull Superimposition
- Cranio-Facial Reconstruction

DIGNIFIED MANAGEMENT OF THE DEAD IN DISASTERS

The management mainly aims at recovering the dead bodies as well as their proper storage. The cause of death is established which aids in legal purposes as well as in issuing of the death certificates. Evidences are discovered which help in the investigation of disaster. It is to determine the causes of disaster and to try and identify the perpetrators, especially in the case of man-made disasters. To achieve these goals, effective local, as well as regional and national coordinators are required.[4]

INTERNATIONAL HUMANITARIAN LAW

International humanitarian law is a set of rules which seek, for humanitarian reasons, to limit the effects of armed conflict. It protects persons who are not or are no longer participating in the hostilities and restricts the means and methods of warfare. International humanitarian law is also known as the law of war or the law of armed conflict. International humanitarian law is part of international law, which is the body of rules governing relations between States. International law is contained in agreements between States – treaties or conventions –, in customary rules, which consist of State practise considered by them as legally binding, and in general principles. International humanitarian law applies to armed conflicts. It does not regulate whether a State may actually use force; this is governed by an important, but distinct, part of international law set out in the United Nations Charter. A major part of international humanitarian law is contained in the four Geneva Conventions of 1949. Nearly every State in the world has agreed to be bound by them. The Conventions have been developed and supplemented by two further agreements: the Additional Protocols of 1977 relating to the protection of victims of armed conflicts. International humanitarian law applies only to armed conflict; it does not cover internal tensions or disturbances such as isolated acts of violence. The law applies only once a conflict has begun, and then equally to all sides regardless of who started the fighting.[6]

INFAMOUS MASS DISASTERS OF INDIA

- The 2001 Gujarat earthquake, also known as the Bhuj earthquake, occurred on 26 January, India's 52nd Republic Day, at 08:46 am IST and lasted for over 2 minutes. The epicentre was about 9 km south-southwest of the village of Chobari in Bhachau Taluka of Kutch District of Gujarat, India. The intraplate earthquake reached 7.7 on the moment magnitude scale and had a maximum felt intensity of X (Extreme) on the Mercalli intensity scale. The earthquake killed between 13,805 and 20,023 people (including 18 in southeastern Pakistan), injured another 167,000 and destroyed nearly 400,000 homes.[7]
- According to official estimates in India, 10,136 people were killed and hundreds of thousands made homeless when a tsunami triggered by the 2004 Indian Ocean earthquake near the Indonesian island of Sumatra struck the southern coast on 26 December 2004. The earthquake registered 9.1–9.3 Mw and was the largest in five decades. It was followed by strong aftershocks on the Andaman and Nicobar Islands. The death toll of the earthquake was 1,500 people.[8]
- In June 2013, a multi-day cloudburst centred on the North Indian state of Uttarakhand caused devastating floods and landslides becoming the country's worst natural disaster since the 2004 tsunami. The reason the floods occurred was that the rainfall received was on a larger scale than the regular rainfall the state usually received. The debris blocked up the rivers, causing major overflow. The main day of the flood was 16 June

2013. Though some parts of Himachal Pradesh, Haryana, Delhi and Uttar Pradesh in India experienced the heavy rainfall, some regions of Western Nepal, and some parts of Western Tibet also experienced heavy rainfall, over 89% of the casualties occurred in Uttarakhand. As of 16 July 2013, according to figures provided by the Government of Uttarakhand, more than 5,700 people were "presumed dead."[9]

- Extremely Severe Cyclonic Storm Fani was the strongest tropical cyclone to strike the Indian state of Odisha since the 1999 Odisha cyclone. The second named storm and the first severe cyclonic storm of the 2019 North Indian Ocean cyclone season, Fani originated from a tropical depression that formed west of Sumatra in the Indian Ocean on 26 April. Vertical wind shear at first hindered the storm's development, but conditions became more favourable on 30 April. Fani rapidly intensified into an extremely severe cyclonic storm and reached its peak intensity on 2 May as a high-end extremely severe cyclonic storm—the equivalent of a high-end Category 4 major hurricane. Fani weakened before making landfall, and its convective structure rapidly degraded thereafter, degenerating into a remnant low on 4 May, and dissipating on the next day. Prior to Fani's landfall, authorities in India and Bangladesh moved at least a million people each from areas within Fani's projected path onto higher ground, and into cyclone shelters, which is thought to have reduced the resultant death toll. Fani killed at least 89 people in eastern India and Bangladesh. Fani caused about US$8.1 billion in damages in both India and Bangladesh, mostly in Odisha, in India.[10]

RECENT CASES OF MASS DISASTERS IN VARANASI

- At least 24 people were killed and another 20 injured in a stampede at RajghatBridge on the border of Varanasi and Chandauli where a large number of people had gathered for a religious event this afternoon. The incident took place when thousands of followers of religious leader Jai Gurudev were on their way to Domri village on the banks of the Ganga to take part in the two-day camp, police said. The stampede broke out when thousands of devotees tried to cross the bridge at once.One man died of suffocation because of the surging crowds, which led to a commotion. Rumours that the bridge had collapsed fuelled more chaos, Uttar Pradesh DGP Javeed Ahmed said.[11]
- Movement of heavy traffic, coupled with what amounts to negligence, led to the collapse of a part of an under-construction flyover in Varanasi on May 15th 2018, which cost 15 lives in Prime Minister Narendra Modi's constituency. The flyover had collapsed primarily because two beams holding up the horizontal concrete slabs buckled. A huge slab of concrete had crashed down, crushing cars and a local bus that were plying underneath.[12]

Figure 2. Falling down of Bridge pillar at Cantt, Varanasi

Figure 1. Mass rally at rajghat Bridge

II. Conclusion

Virtual autopsy should replace the conventional method of post-mortem examination. The mental anguish suffered by relatives of the deceased due to mutilation of the corpse can be prevented by virtual autopsy. It should be provided to at least district headquarters of every state or should be at least done in all 29 states of the country.

The conventional post-mortem method is not the proper dignified way and is violation of human rights so human right activists should raise their voice on this pertinent issue to the government. India also has a special force to manage disasters, also known as NDRF (National Disaster Response Force). It is a type of rescue team working in difficult situations and during crisis phase, this type of rescue team is only found in India. This disaster management in India comes under direct control of Prime Minister.

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ETHICAL CLEARANCE:
 The present study was approved by "Institutional Ethical Committee" of Institute of Medical Sciences, Banaras Hindu University,Varanasi. All the information has been taken under consideration of medical ethical committee.
STATEMENT OF INFORMED CONSENT:
This is a review study done by going through various online contents. No consent was required.

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