



# The Use of Forensic Evidences in Investigations and Prosecution in International Criminal Proceedings. Case Study of International Criminal Court (ICC)

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## Abstract

From 1990s, a rising number of international and hybrid criminal tribunals and since 2002, the International Criminal Court have conducted various investigations on international crimes including crime against humanity, genocide and war crimes in various countries worldwide. These judicial organs have repeatedly relied upon witness's testimonies, information and assistance from a wide variety of sources including governments, journalists, peacekeepers, human rights researchers and intelligence specialists and few forensic scientists, wherein some of these information and reports were driven by politics. Even though such information were very benefitting "there have also been many mishaps, misunderstandings in terms of differentiating information and evidence and missed opportunities in view of finding out the truth in way that information that could potentially have been of great use to criminal cases was lost or was collected or preserved in a manner that made it unusable at trial."

In today's era, where there is a remarkable technological development in forensic science, it is time to use forensic methods in investigation of international crimes since a number of scientific and technological advances have improved the ability to document large-scale crimes with efficiency and precision. Yet, only in recent years have international criminal courts and other fact-finding institutions begun to embrace these innovations.

There is a need of forensic science in investigating and prosecuting offenders of atrocities than traditional use of testimonies which are not easy to be relied on but still some legal and administrative issues still hinder the successful use of forensic evidences in investigating and prosecuting in international criminal proceedings.

The present research focused on the practical use of forensic evidences like; pathology and DNA in exhumation of mass grave for determination of cause, manner and mechanism of death but to locate, excavate and exhume mass graves to produce forensic evidences of atrocities and to returning victims to loved ones and also discussed as tools for justice, humanitarian and documentation.

The research also revealed the problems which are not only limited to the legal challenges of insufficiency of forensic evidence admissibility regulations and their maintenance of chain of custody, but also there are administrative issues like, lack of fund to be used during forensic investigation activities including, crime scene examination, collection of evidence and laboratory

examination of forensic evidence and all these can lead to unnecessary complications and prolongation criminal proceedings in international criminal court hence breach of fair trial principle.

Finally, the research proposed reforms by establishing specific regulations related to the admissibility of forensic evidences in international criminal proceedings and chain of custody of forensic evidences as well as harmonizing the standard operating procedure of forensic investigation to regulate scientific investigation activities including, Crime Scene Management, Evidence Collection, Examination of forensic evidences and forensic expert report writing in investigation and prosecution of international criminal proceeding and also detailed mandate to solve administrative issues.

**Keywords:** Forensic Evidence; Investigation and Prosecution; International Proceedings

**Abbreviations:** DNA: Deoxyribonucleic Acid; ICC: International Criminal Court; NGOs: Nongovernmental Organizations; RPE: Rules of Procedure and Evidence; EU-FET: European Union Forensic Expert Team; KLA: Kosovo Liberation Army; IFOR: Implementation Force.

## Introduction

The forensic science is the application of different scientific disciplines in the administration of justice and forensic science in the courtrooms is considered as a modern phenomenon, with the great university trained professionals of forensics and criminalists, crime scene specialists, toxicologists, and laboratory experts and the acceptance of forensics started in over centuries ago [1].

Now, different forensic evidences are used investigation, prosecution and trial of criminal cases like, Fingerprints, Blood, Deoxyribonucleic Acid (DNA), digital evidences, human remains, documents examination and others in different forensic disciplines, like; Anthropology, Archaeology, Biology and Digital Forensics. Forensics enable investigators and prosecutors to locate, excavate, exhume mass graves, returning victims to loved ones and also producing powerful factual evidences of atrocities which are helpful to minimize the risks of complications and delaying of criminal proceedings.

Complementarily to the other hand of freedoms and justice system, all human being are united by common bonds of cultures in a shared heritage, but masses of children, women and men have been victims of unimaginable atrocities that extremely tremor the ethics of humanity. Such serious crimes threaten the peace, security and well-being of the world and they must not go unpunished to put an end to impunity for the perpetrators of these crimes and thus to contribute to the prevention of such crimes.

It is in this in regard that, the number of International Criminal Courts, Tribunals and The Permanent International

Criminal Court (ICC) in The Hague were all established, and they have carried out large scale investigations and prosecution of Crimes against Humanity, Genocide and War Crimes.

## Background of the Study

The international justice institutions such as criminal courts have often relied upon information and assistance from a variety of sources including; Governments, Journalists, Peacekeepers, employees of Nongovernmental Organizations (NGOs) and other International Organizations. The cooperation has demonstrated very important but frequently some information that could potentially have been of great use to criminal cases was lost or was collected or preserved in a manner that made it unusable at trial.

The definition and establishment of elements of the crimes of Genocide, Crimes Against Humanity, and War Crimes in international criminal proceedings are provided with the articles 6, 7 and 8 of the Rome Statutes respectively. But, the actors of international criminal courts do not fully use the promising ability of forensic evidences to help the investigation and prosecution of international criminal proceedings to arrive at correct verdicts. This creates a dilemma in administration of justice regarding legality of forensic evidence in international criminal courts hence breach of fair trial principle.

The study focuses on forensic science with legal obstacle that hinders the use of forensic evidence as only available tool to be used while investigating and prosecuting the international criminal proceedings. For example, the legal sufficiency in the line with regulations of use of forensic evidences in prosecution and investigation, forensic examining and analyzing the evidences, exhumation and excavation of human remains to identify the cause, manner and mechanism of death with relevant case studies as well as forensic evidence admissibility.

## Statement of the Problem

The lack of enough provisions regulating forensic evidences at the ICC can be described as the lack of framework which allows the Chambers to be flexible with broad discretion granted to the Trial Chambers which may led to an often liberal approach in their admission of evidences. The lack of guidance may also have led the court to an extensive use of witness testimony which may not be found due to time elapsed after the commission of atrocities. A flexibility in admissibility can again lead to the admission of doubtful evidences exclusions which may often unnecessarily prolong and complicate proceeding.

The admissibility and exclusion of evidences are offered by the Rome Statute is under Article 69 (4), it describes that the Court should determine the admissibility of evidence based upon its probative value and possible prejudicial effect and with accordance with the Rules of Procedure and Evidence. Whereas, Rule 63 sets out general provisions relating to evidence and Rule 64 advises on the technical procedures for raising an issue of admissibility. The latter rule also states that evidence found to be irrelevant or inadmissible will not be considered by the Chamber, but does not provide any criteria for determining the detailed admissibility guidance, only Rule 72 for evidence of crimes of sexual violence.

This insufficient legal provisions for the chain of custody of evidence in the RPE of the ICC, Chain of custody of evidence is important to show the evidence integrity. The only general evidentiary guidance in the ICC cases breach of chain of custody of evidence is determined within case law decisions which are determined by the Judge's discretion and this can lead to inconsistency even within the same case. All legal obstacles are problems that can lead to breach of legal and judicial principles such as; fail trial principle, principle of legality and presumption of innocent.

For example, ICC Pre-Trial Chamber had dismissed charges against the three defendants; Thomas Lubanga, Germain Katanga and Mathieu Ngudjolo Chui from Democratic Republic of Congo and one from the Central African Republic because the judges did not find "sufficient evidence to establish substantial grounds to believe" that the accused committed the alleged crimes as use of scientific evidence was limited.

## Materials and Methods

The research methodology used in the present article is purely doctrinal. The author has referred to scientific and legal literature from books, journals, PhD thesis, national and international reports, and legislations, judicial precedent

and electronic sources.

The present article is critical analysis which points out issues and challenges related to the use and efficacy of forensic evidences such as DNA, anthropology among others during investigation and prosecution of international criminal proceedings with specificity to the International Criminal Court.

## Definition of Key Concepts

The key legal and scientific terminologies are defined, like: meaning of forensic evidences, Locards' exchange principle, Golden hour principle and chain of custody of evidence and again the forensic disciplines applied in investigation and prosecution of international crimes.

**Meaning of Forensic Evidences:** According to USLegal.com, forensic evidence means evidences obtained by scientific methods such as; ballistics, and DNA test to be used in court. Forensic evidence often helps to establish the guilt or innocence of possible suspects. Additionally, forensic evidences are scientific facts used to prove the criminal or civil cases in justice proceedings.

**Meaning of Forensic Science:** According to the US department of justice forensic science mean a critical element of the criminal justice system involving the examination and analyze evidence from crime scenes and elsewhere to assist in the investigation and prosecution of perpetrators of crime or absolve an innocent person from suspicion. While Is also the application of different scientific disciplines like chemistry and biology in administration of justice. While Keith Inman in his book on principles of criminalistics, the profession of forensic science defines forensic science as forum by applying basic scientific principles of physics, chemistry, and biology to test different hypothesis for justice.

**Meaning of Forensic Investigation:** is the gathering and analysis of all crime-related physical evidences such as blood, fluid, or fingerprints, residue, hard drives, computers, or other technology in order to come to a conclusion about a suspect. But it can also be defined as A forensic investigation is the practice of lawfully establishing evidence and facts that are to be presented in a court of law.

**Meaning of Chain of Custody of Evidence:** refers to traceability of the evidences from the time collected from the crime scene to the time presented to the court. Proving the persons in contact with the purpose to insure the authenticity and reliability of evidence. The chain of custody is the most critical process of evidence documentation. It is a must to assure the court of law that the evidence is authentic, i.e., it is the same evidence seized at the crime scene. It was, at all

times, in the custody of a person designated to handle it and for which it was never unaccounted.

**Meaning of Locards' Exchange Principle:** "every contact leaves a trace". Explained by French Scientist Dr. Edmond Locards that "wherever he steps, whatever he touches, whatever he leaves, even unconsciously, will serve as a silent witness against him. Not only his fingerprints or his footprints, but his hair, the fibers from his clothes, the glass he breaks, the tool mark he leaves, the paint he scratches, the blood or semen he deposits or collects. All of these and more, bear mute witness against him. This is evidence that does not forget. It is not confused by the excitement of the moment. It is not absent because human witnesses are. It is factual evidence. Physical evidence cannot be wrong, it cannot perjure itself, it cannot be wholly absent. Only human failure to find it, study and understand it, can diminish its value".

**Meaning of Golden Hour Principle:** Is the term used in criminal investigations which means that, the effective early action can result in securing significant material hence the maximum amount of material, minimizing material attrition and maximizing the opportunities to identify the offender.

**Meaning of International Jurisdiction:** refers to the idea that a national court may prosecute individuals for serious crimes against international law such as crimes against humanity, war crimes, genocide, and torture based on the principle that such crimes harm the international community or international order itself.

### International Criminal Court

The International Criminal Court was established in Hague and started its work in 2003. It is a permanent court which was created under the Rome Statute of the International Criminal Court of 2002. According to article 5 (1) of the Rome Statute, the International Criminal Court has jurisdiction over the core crimes of genocide, crimes against humanity, war crimes and the crime of aggression. The jurisdiction of the International Criminal Court is limited to 'the crime committed by a national of state party, to the crime occurred on the territory of state party, or of a state which has accepted the jurisdiction of the Court (ad hoc jurisdiction), in case of non-state parties [2].

The Court also has jurisdiction over the crime referred to it by Security Council'. The later may be committed on territory of any other state than the state party or regardless the nationality of perpetrator. The exercise of jurisdiction of International Criminal Court is guided by the principle of complementarity whereby the national courts have priority in prosecuting the case. Therefore, International Criminal Court may only exercise jurisdiction when the state is not

willing or unable to prosecute. The complementarity is expressed in paragraph 10 of the preamble and in article 1 of the Statute; 'the International Criminal Court shall be complementary to national criminal jurisdiction' [3].

### International Crimes According to the ICC Statute

War crimes originate from the 'laws and customs of war', which accord certain protections to individuals in armed conflicts. Genocide and crimes against humanity evolved to protect persons from what are now often termed gross human rights abuses, including those committed by their own governments. The possible exception of the crime of aggression with its focus on inter State conflict. There is no universally accepted definition of an international crime nor general criteria for determining the scope and the content of an international crime. Nevertheless, various attempts have been made to define the general characteristics of international crimes. The characteristics of international crimes have been considered as: crimes which violate or threaten fundamental values or interests protected by international law and which are of concern to the international community as a whole.

Initially, in the late nineteenth century, and for a long time after, only war crimes were punishable. 'It is after the Second World War that new categories of crime have developed, while that of war crimes has been restated: in 1945 and 1946, the statutes of International Military Tribunal at Nuremberg and the International Military Tribunal for the Far East, respectively, were adopted laying down new classes of international criminality'. The new crimes were crime against peace and crime against humanity which were added to war crimes by Nuremberg Charter in 1945; later in 1948 the crime of genocide was also added. Before discussing in detail those categories of crimes, let us numerate the constituent of international crimes with accordance to the Roman statutes and statutes of ad hoc tribunals.

### Crime of Genocide

Article 2 and 3 of the Genocide Convention of 1948 to which Rwanda is part, pursuant to Law-Decree of 12 February 1978, define Genocide as follows: Genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such: Killing members of the group; Causing serious bodily or mental harm to members of the group; Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; Imposing measures intended to prevent births within the group; Forcefully transferring children of the group to another group. The following acts will be punished: Genocide; Conspiracy to

Commit Genocide; Direct and Public incitement to commit genocide; Attempt to commit genocide; Complicity to commit genocide. Section 1: Constituent elements of Genocide: Through the definition of Genocide, one may note that this crime requires that the three (3) following criteria be met: The commission of specified criminal acts; The Authors must have acted with a specific intent; The acts must be directed towards a protected group.

### Crimes Against Humanity

Crime against Humanity gained a new momentum with the birth of international criminal jurisdictions. The definition evolved also rapidly because the different international jurisdictions apprehend the notion differently. The ICTR Statute mainly adopts the definition of Crime against Humanity as provided by Art 6 c) of the Nuremberg Statute. Article 4 of ICTR Statute defines the Crime against Humanity as certain crimes committed in the context of a widespread or systematic attack and directed towards any civilian population on national, political ethnical, racial or religious grounds. The crimes referred to are: Murder, extermination, enslavement, deportation, imprisonment, torture, rape, persecution on political, racial and religious grounds; other inhumane acts. The Constituent elements of Crime against Humanity may be apprehended in 3 aspects: The widespread or systematic attack, The criminal acts and the mens rea. Article 120 of the RPC add more acts. With respect to the mens rea, the perpetrator must have acted with knowledge of the broader context and knowledge that his acts formed part of the attack, but need not share the purpose or goals of the broader attack.

### War Crimes

War crimes means serious violation of the laws and customs applicable in armed conflict which gives rise to individual criminal responsibility under international law. Key principles of humanitarian law: Non-combatants are to be spared from various forms of harm; this category includes not only civilians but also former combatants, such as prisoners of war and fighters rendered hors de combat because they are wounded, sick, shipwrecked or have surrendered; combatants must distinguish between military objectives and the civilian population, and attack only military objectives; in attacking military objectives, combatants must take measures to avoid or minimize collateral civilian damage and refrain from attacks that would cause excessive civilian damage; The Rome Statute divides war crimes into two categories: war crimes committed during international armed conflicts and war crimes committed during non-international armed conflicts. The distinguishing element of war crimes is that the prohibited acts must be committed during an "armed conflict." This excludes crimes committed

in all situations which fall short of an armed conflict such as "situations of internal disturbances and tensions, such as riots, isolated and sporadic acts of violence or other acts of a similar nature.

Historical examples, the Nuremberg Charter gave form to the international law of war crimes. Article 6(b) of the Charter included: War crimes: namely, violations of the laws or customs of war. Such violations shall include, but not be limited to, murder, ill-treatment or deportation to slave labor or for any purpose of civilian population of or in occupied territory, murder or ill-treatment of prisoners of war or persons on the seas, killing of hostages, plunder of public or private property, destruction of cities, towns or villages, or devastation not justified by military necessity.

The relationship between crime against humanity and war crime, can overlap like the mass killing of civilians during an armed conflict could constitute both types of crimes. The significant differences, unlike war crimes, crimes against humanity may occur even in the absence of armed conflict. Second, crimes against humanity require a context of widespread or systematic commission, whereas war crimes do not; a single isolated incident can constitute a war crime.

### Crime of Aggression

Crime of aggression is widely regarded as a crime under customary international law. States Parties to the ICC agreed in Rome in 1998 to include the crime of aggression in the ICC Statute but suspended ICC jurisdiction over the crime until they could agree on a definition and conditions for the exercise of jurisdiction. The Assembly of States Parties to the Statute of the International Criminal Court "decides to activate the Court's jurisdiction over the crime of aggression as of 17 July 2018." This means the Court will be able to exercise jurisdiction over aggression. The elements that constitute the crime of aggression: the perpetrator planned, prepared, initiated or executed an act of aggression, the perpetrator was a person in a position effectively to exercise control over or to direct the political or military action of the State which committed the act of aggression, the act of aggression the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations was committed, the perpetrator was aware of the factual circumstances that established that such a use of armed force was inconsistent with the Charter of the United Nations, the act of aggression, by its character, gravity and scale, constituted a manifest violation of the Charter of the United Nations, the perpetrator was aware of the factual circumstances that established such a manifest violation of the Charter of the United Nations.

Perpetrators Aggression is a “leadership crime”. In order to constitute the crime of aggression, the prohibited act must be performed by a person in a position effectively to exercise control over or to direct the political or military action of a State. This requirement retains the notion, held at Nuremberg, that aggression is a “leadership crime which cannot be committed by “minions and foot soldiers.

### The Enforcement of International Criminal Law

Crimes under international law are considered as of universal nature because of their effect to the international community; that means every state is affected. Therefore, every state has the authority to prosecute and punish the perpetrators of those crimes in national court regardless of the victim, perpetrator and where it has been committed in pursuant to universal jurisdiction. Moreover, a state of the commission of the crime is under the obligation to prosecute that crime. *Aut dedere aut judicare* principle (If you can't execute then extradite). In addition to national courts, those crimes can be punished before international criminal courts or tribunals and hybrid tribunals. States' Jurisdiction: Issues of criminal jurisdiction remain a highly contentious area of international relations [4].

### Role of Forensic Evidence in Investigation and Prosecution of International Criminal Proceedings

The potential power of forensic evidences for both prosecutors and victims is encapsulated by Justice Richard Goldstone, former Chief Prosecutor for the ICTY and ICTR, who states that without the work of forensic teams, the victims would have been deprived of revelation of the truth to which they were entitled, and those seeking to do justice would have been deprived of important evidences. Forensic science is capable of providing scientific evidences of the *actus reus* of an atrocity, as well as providing evidence of the *mens rea* (guilty mind) of the perpetrator through indications of intent. In addition to providing evidences to assist the prosecution or defence, it has other functions of legal, humanitarian, documentary and preventative. At the end chapter we discussed the jurisprudence/ cases where the role of the forensic evidences with particular inference to the forensic pathologist, anthropologist and DNA at the investigation, prosecution and trial stages in the context of international criminal proceedings [5].

In order to prosecute war crimes, crimes against humanity and genocide, it is necessary to establish that the dead were not military personnel but were civilians killed as being part of an ethnic, religious, racial or particular social group. local authorities or governments claim that

no genocide ever took place and so deny the existence of any mass graves. Use of forensic science can provide by examining human remains, the identities of the victims and their status hence aid in the prosecution of such crimes and make denial of the crimes by the perpetrators impossible. The exhumation of a large number of human remains from mass graves provides indisputable physical proof that large scale killings did occur therefore undermining such claims and dispelling denials. This is the most common use of forensic evidence in international trials and then observing the legal and judicial procedures of substantive contents of legal provisions hence fair trial justice [6].

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### Non Legal Function

**Preventive Function:** The collaboration of science and law in the investigation of international crimes is one of the few ways to deter potential war criminals, genocide and crime against humanity as well as allowing the investigation of past atrocities, forensic science may help to proactively prevent crimes such as genocide by demonstrating that those responsible will be held accountable for their actions. Forensic evidences are able to hold both individuals and nation states accountable, for example, the perpetrators of the Srebrenica massacre were unable to deny their involvement following the DNA identifications of the victims. By utilizing such forensic techniques, a message is sent to potential perpetrators that war crimes will be investigated and prosecuted by the international community, with this threat of conviction acting as a deterrent against future crimes. As January states, „truth may be the most important weapon in the battle against genocide. Deterrence effect result into prevents abuse of human rights and prevents violation of legal principles [8].

**Humanitarian Function:** Human remains may also be concealed as a form of repression of the survivors; creating a culture of silence in which they are not allowed to acknowledge the occurrence of the atrocities or see justice effected. Exhumation sheds light on such events and allows for the identification and repatriation of the victims [9]. Forensic anthropology and DNA analysis enable individual victims to be personally identified and, by providing names to the victims, investigators are able to return them to their relatives for a proper burial. This may provide a sense of

closure to families, who may have thought that their relatives were missing or relocated rather than deceased, and allows them to know the fate of their loved ones and grieve [10].

**Documentary Function:** In his memoirs of Rwanda, U.S. Ambassador Robert E. Gribbin describes the importance of having documented facts on the table that could be dealt with rationally, as opposed to unverifiable emotional speculations. As the conjecture which arose over the Katyn Forest massacre demonstrates, establishing the truth of events for the historical record is crucial, not only for prosecution purposes but also for documentary objectives. Forensic investigations have the power to expose and raise the awareness of war crimes on a global scale, by producing hard, physical proof of the atrocities. Documentation is free from speculation and denial can contribute to a sense of justice, as well as deterring future atrocities [11].

## Case Study

This section is summary of successful cases investigated and prosecuted by using forensic evidences in International Criminal Court and Tribunals but also highlighted the failed cases due to lack and abandonment of forensic evidences.

### Successful Use of Forensic Evidence in International Criminal Proceedings

The following are cases whereby prosecutors decided to use forensic evidences in investigation and prosecution of international criminal proceedings.

**Prosecutor V Krstić, Trial Testimony and Judgement, 02 August 2001, Case No. IT-98-33:** To prove the crime of genocide in the case against General Krstić, the ICTY Trial Chamber reported in detail the medico-legal analyses resulting from mass graves' exhumations. The results of the forensic investigations suggest that the majority of bodies exhumed were not killed in combat; At least 423 ligatures were located during exhumations at 13 separate sites. The Chamber was thus able to conclude relied on the forensic evidence presented by the Prosecution and confirm genocidal intent [12].

The charge of crimes against humanity requires a widespread or systematic attack be directed against a civilian population, it is important to establish that the victims were not combatants. Forensic techniques used at the Ovčara mass grave near Vukovar in Croatia and found that common indication of this is the exhumation of many female and juvenile victims wearing civilian clothes instead of being men dressed in uniforms and the medical demonstrated victims not have been combatants, another indicator of the victims being civilians or prisoners of war is when the remains

are found with ligatures tying the hands and/or blindfolds covering the eyes [13]. The Ovčara grave site, the presence of medical supplies corroborated the testimony of witnesses who claimed that approximately 200 staff and patients were taken from the local Vukovar hospital to be executed by the Yugoslav People's Army (JNA) in 1991. The recovered from the grave site may establish the victims' religious affiliation, such as the clothing and personal items found in Srebrenica which indicated that a large number of the victims were Muslim, evidence used in the trial of Radislav Krstić. The forensic recovery of artefacts can also serve as circumstantial evidence from which the court can infer the occurrence of the atrocity [14].

**The Prosecutor Versus Georges Rutaganda, 6 December 1999, Case No. ICTR-96-3:** The footage recorded by British reporter Nick Hughes of the murder of a father and his daughter in the 1994 genocide against the Tutsi was used four years later in the trial of George Rutaganda, a leader of the Rwandan Hutu militia, before the ICTR and he was subsequently convicted and sent to prison in 1998 [15]. The digital forensic evidences can play important role of enabling court to determine the truth and it can retain its authentic and probative means of proof for an extended period of time [16].

**Prosecutor Versus Clement KAYISHEMA and OBED RUZINDANA, Trial Testimony and Judgement, 29 May 1999, Case No. ICTR-95-1:** Forensic artifacts evidences helped to reconstruct events, with the Trial Chamber in Kayishema and Ruzindana stating that it may even be strong enough to provide sufficient evidence of intent. forensic science often provides unequivocal corroboration of the testimony of eyewitnesses or survivors. The forensic circumstantial evidences such as ethnic identity of the victims as members of the Tutsi population was established through the recovery of identification cards found with the remains consists of items found in the of mass graves and directly associated with the remains [17].

### Legal Challenge in the Use Forensic Science in International Criminal Proceedings

The use of forensic evidences are useful but application in the international criminal proceedings is comparatively low and undeveloped due to insufficient of the legal provisions regulating the use of forensic evidences and chain of custody in the Statutes and Rules of Procedure and Evidence which prevent the effective use and deployment of forensic evidences in the international criminal jurisdiction hence absence of fair trial and unnecessary trial complications [18]. For example, regardless the fact that 10th July 2012, Trial Chamber I sentenced Thomas Lubanga Dyilo to 14 years of imprisonment, of which the period that he spent in the ICC custody shall be deducted [19]. Before then, The International Criminal Court Pre-Trial Chamber had

dismissed charges against the Thomas Lubanga, Germain Katanga and Mathieu Ngudjolo Chui [20] because the judges did not find “sufficient evidence to establish substantial grounds to believe” that the accused committed the alleged crimes. By then, the use of scientific evidence was limited but the Court’s approach to scientific evidence later evolved [21].

### Summary

The trial transcripts and literature related to the use of scientific evidence to the international criminal procedure whereby the we discovered science so useful in legal and judicial, preventive function as deterrence effect, Humanitarian function by returning victim to their relative as well as documentation by identifying the victims of atrocities such as examining mass graves using forensic science discipline like; DNA, Anthropology and pathology.

Again, we discussed the deployment of forensic expertise at the ICTY, with specific reference to the investigation of the Srebrenica massacre and the trial of Radislav Krstić and reasons for seeking forensic expertise in the Krstić trial and the role of the forensic scientist, with particular reference to the forensic archaeologist, pathologist and anthropologist. But also we have seen limitation of using forensic science in international criminal proceedings by analyzing the Pre-Trial phase of Thomas Rubanga.

### Challenges and Potential Reforms Pertaining to the Use of Forensic Evidence in Investigation and Prosecution of International Criminal Proceedings

Soon after the end of the Cold War, with the horrors in the former Yugoslavia and Rwanda and the stark failures of national court systems freshly in mind, the United Nations, a number of governments, and many citizens’ groups and international nongovernmental organizations (NGOs) worked to create international criminal courts. The Security Council created two ad-hoc international criminal tribunals, the International Criminal Tribunal for the former Yugoslavia (ICTY) in 1993 and the International Criminal Tribunal for Rwanda (ICTR) in 1994, to try alleged perpetrators of genocide, war crimes, crimes against humanity, and other serious violations of international humanitarian law [22].

The International crimes mostly start to be investigated of after long time has elapsed, wherein most of evidences such as testimonies are not available or witness have forgotten all details of facts as memory vanished because the tragedy which is followed by a trauma and this may affect the legal principle of fair trial and even assistance from a variety of sources including; governments, journalists, peacekeepers and employees of NGOs and international organizations.

Although such cooperation has proven very important also most of cases are oral testimonies from witnesses than being scientific/ forensic evidences [23]. In this regards, the actors of international criminal courts do not fully use the advanced forensic evidences in the investigation and prosecution in international criminal courts hence breach of fair trial principle To solve this problem, the only thing which can be relied on as evidence are human remains and digital forensics for instance in mass killing will require scientific technics to exhumation. In this context, forensic evidences can help to identify what happened.

These challenges can be classified into two categories, namely; the legal challenges whereby there is insufficient legal provisions in statutes and rule of evidence and procedures of international courts regulating the admissibility of evidences and chain of custody of evidences in investigation and prosecution of international criminal proceedings and secondly are challenges pertaining the administration and logistic challenges such as; technique challenges, financial, security and lack trained personnel in criminal courts, as follow;

### Challenges Pertaining the Deficient of Rules Governing Admissibility of Forensic Evidences

The definition and establishment of elements of the crimes of Genocide, crimes against humanity, and war crimes in international criminal proceedings are provided with the articles 6, 7 and 8 of the Rome Statutes respectively [24]. In this regard the admissibility and exclusion of evidences offered by the Rome Statute is under Article 69 (4), it describes that the Court should determine the admissibility of evidence based upon its probative value and possible prejudicial effect and it has to be carried out in accordance with the Rules of Procedure and Evidence [25]. Whereas, Rule 63 sets out general provisions relating to evidence and Rule 64 advises on the technical procedures for raising an issue of admissibility. The latter rule also states that evidence found to be irrelevant or inadmissible will not be considered by the Chamber [26], but does not provide any criteria for determining the detailed admissibility guidance, only Rule 72 for evidence of crimes of sexual violence [27]. The lack of enough provisions for evidence at the ICC can be described as the lack of framework which allows the Chambers to be flexible with broad discretion granted to the Trial Chambers which may led to an often liberal approach in their admission of evidences [28]. The lack of guidance may also have led the court to an extensive use of witness testimony which may not be found due to time elapsed after the commission of atrocities. A flexibility in admissibility can again lead to the admission of doubtful evidences exclusions which may often unnecessarily prolong and complicate proceeding [29].



According to the international criminal court report [30], the statistics of 31 cases admitted by the international criminal courts from day one of stating operations in Hague 2002 today (2022) summarized and interpreted during our research; The ICC cases from 2002 to 2022, their stages of proceeding with alleged crimes and hence summary total percent of each crime. In 31 cases, 11 of 31 cases are solved or still in pre-trial phase, 9 of 31 already closed, 6 of 31 are in trial phase, 4 of 31 compensated while 1 of 31 is in appeal stage. All crimes investigated and prosecuted in 70% were War crimes alleged in 22 cases out of 31, 67.7% were Crimes Against Humanity alleged in 21 cases out of 31 cases, 3.3% were crime of Genocide alleged in 1 case out of 31 cases while last but not the list are offence against administration as indicated by the ICC statistics appeared in 4 cases out of 31 cases making it to cover 12.9% of investigation and prosecution of atrocities investigated by the ICC from 2002 to April of 2022 [31].

According to the statistics with subsequent to the further research made it is clear that, the International Criminal courts and tribunals tend to rely heavily on documentary evidence, the testimony of witnesses and less on physical scientific evidences which may lead to have more Pre-trial cases equivalent to 11 out of 31 viewed as complication and inadmissibly by the trial chamber or absence of suspects to appear before the court. for example, Although the ICC's use of scientific evidence has become more extensive and more diverse in its more recent investigations, such as those in the Central African Republic, Kenya, and Cote d'Ivoire. But as discussed in the case of Thomas Lubanga Dyilo et, al, before being tried on 10th July 2012 by Trial Chamber I sentenced Thomas Lubanga Dyilo to a total period of 14 years of imprisonment, of which the period that he spent in the ICC custody shall be deducted. previously, The International Criminal Court Pre-Trial Chamber had dismissed charges against the Thomas Lubanga, Germain Katanga and Mathieu Ngudjolo Chui [32] because the judges did not find "sufficient evidence to establish substantial grounds to believe" that the accused committed the alleged crimes. By then, the use of scientific evidence was limited but the Court's approach to scientific evidence later evolved. Use of scientific evidence was limited as it is not provided for by the International Criminal Court statute and its' Rule of procedure and evidence [33].

In addition to the above, even the provisions for Forensic Evidence at the Ad hoc Tribunals and the ICC Article 14 of the ICTR Statute [34] and Article 15 of the ICTY Statute state [35] that the Rules of Procedure and Evidence (RPE) of the Tribunal shall provide for the admission of evidence. However, the RPE do not include provisions for the admissibility of scientific evidence. Therefore, the general tests for admissibility and exclusion, found under Rule 89

and Rule 95 respectively. These allow the Chamber to admit any relevant evidence deemed to be of "probative value", so long as it does not jeopardize the defendant's right to a fair trial and was not obtained in circumstances which would cast doubt on its reliability.

Again, the ICC and Tribunals provide little guidance regarding the presentation of evidence by the expert at court. The role of the forensic scientist at the trial stage is only to present evidence to be used by the court, and not to judge the case themselves. However, there can be confusion regarding this presentation of evidence for even the most experienced forensic scientists. For example, during his testimony at the trial of Radovan Karadžić, forensic anthropologist Dr. William Haglund admitted that he should not have stated that the victims' had been executed, as it was the prosecutor's role, rather than his, to prove whether or not executions had taken place.

In addition, the Tribunals and the ICC also lack Codes of Conduct for expert witnesses and guidance for the presentation of their evidence in writing. Rule 94bis, governing witness testimony at the ICTY and ICTR, does not provide guidelines for the creation or content of expert reports. In the absence of provisions, experts have been known to seek the advice of prosecutors regarding report writing and the level of detail required for prosecutorial purposes. For example, the admissibility requirements for expert reports provided in the case of Prosecutor versus Stanišić and Župljanin at the ICTY. The classification of the witness as an expert, that the report meets the minimum standards of reliability, relevant and of probative value and that the contents fall within the expertise of the expert.

This lack of sufficient legal regulations regarding the admissibility, reliability and expert witness in International criminal court and tribunals' statutes and rules of procedure and evidence lead to unnecessary complications and hence breach of fair trial principle of law.

### **Jurisdiction Challenges on the Use of Forensic Evidences**

The legal use of forensic science in criminal investigation to establish the truth has significantly advanced from 1980s. But its application in the international criminal proceedings is comparatively low and undeveloped but also lack of permanent international court as ICC can be hindered by jurisdiction challenges if the forensic evidences are in non-party member countries. Therefore, the jurisdiction may hinder the use of forensic evidences. Forensic investigations at an international level often involve issues of sovereignty and politics. The European Union Forensic Expert Team (EU-FET) were required to conduct their investigation in Kosovo

in accordance with Federal Republic of Yugoslavia law, as well as facing additional obstruction to their activities by the Kosovo Liberation Army (KLA). Investigations may be halted if the host state denies this access and security to investigators, in spite of legislation equipping the Tribunals and International Criminal Court with the power to compel states to cooperate. For example, local Serb Commander General Milan Milovanović prohibited work at the Ovčara site in Croatia, stating that the forensic team's papers from Belgrade mean nothing.

### **Lack of Scientific Standards for International Forensic Investigation**

Protocols and standard operating procedures for forensic investigation may be in place at a national level, there are no international standard protocols for the forensic investigation of international crimes in the international context of atrocities. The problems of a lack of standard protocols due to the ad hoc nature of the Tribunal and issues of professional misconduct and health and safety. This lack of scientific standards for the investigation of mass graves if the consistency and quality of the investigation cannot be guaranteed through standardized procedures, then the admissibility of the evidence produced may be subject to dispute, hence significantly undermining the prosecution case.

### **Lack of Infrastructure, Funding and Security**

There are many important considerations when conducting a forensic investigation, including the scale, cost, time, management of staff and resources, logistics including equipment and transport, site integrity and the chain of custody. Evidence gathering from a large-scale atrocity is expensive and requires great investment, yet many atrocities occur in developing countries without established forensic facilities. whilst vast funding has been dedicated to the ICTY investigations, countries such as Rwanda and Cambodia do not have such funds. In addition, despite the ICTY budget, the start of the exhumation program in Bosnia in 1997 was delayed due to funding problems. Forensic investigations may be hindered by limited equipment or inadequate resources, which can compromise the team's ability to recover and analyse evidence, the integrity of the chain of custody and thus the reliability of the results. Furthermore, war crimes investigations often take place in areas with on-going war. Because of this, the safety and security of the forensic team and the sites they are investigating cannot always be guaranteed.

During the ICTY exhumations in Bosnia and Herzegovina, the Implementation Force (IFOR) refused to guard the gravesites while the investigators were not present which

may potentially mean the exposed graves may be interfered with, sabotaged or "booby-trapped" hence could prove detrimental to the chain of custody. And Staff may also face the dangers of confrontation by local armed forces, as well as landmines and anti-personnel mines, which investigators are not always given adequate training [45].

### **Poor Team Management and Communication**

Communication between legal and scientific personnel can appear effective, with prosecutors recognizing the important role of forensic science in investigations and appreciating that burial sites harness crucial information to forensic teams. However, relationships between forensic personnel on site can sometimes appear to be fractious. This may be due to personality clashes between experts as a result of ethical tensions between members of the forensic teams. An additional source of conflict amongst forensic teams may be role overlap. The similar nature of forensic disciplines, such as anthropology, archaeology and pathology in particular, can lead to confusion and a lack of understanding regarding each team member's particular responsibilities and contributions. This can have a severe impact on the investigation of not progress efficiently, as communication and morale drop to dangerous levels.

### **Conflicting of Forensic Evidences Objective and Justice Objective**

There are inherent differences in the objectives of science and law; the objective of the law is justice while that of science is truth. The mandate for the Office of the Prosecutor is to gather sufficient evidence to establish beyond reasonable doubt the guilt of any person indicted. The prosecutor has a legal obligation to establish whether a crime may have been committed and a forensic obligation to collect evidence to support the charges he wishes to raise. For example, the Chamber in Prosecutor v. Kupreskic et al. [33] held that it was the duty of the prosecutor to present all available evidence in order to assist the Chamber to discover the truth and they are not compelled to search for the "truth". In contrast, forensic scientists are independent gather information that stand apart from any partiality. The mandate of the prosecutor is incompatible with the nature of forensic science in impartial fact-finding [34].

### **Misunderstanding and Lack of Assessment of Forensic Evidences by the IIC Actors**

Inman and Rudin believe that forensic science is probably both the least understood and most misunderstood of all scientific disciplines. It is rooted in the "pure" sciences of biology, chemistry and physics. However, forensic science has been subject to much criticism by the scientific

community, due to the fact that whilst the pure sciences aim to provide definitive, objective and empirically testable results, forensic science requires interpretation in order to become meaningful.

In contrast to DNA analysis, the certainty of which can be communicated by means of a percentage, the methods employed by archaeology and anthropology are often subjective and their accuracy is not statistically quantifiable to be objectively tested as it is non-metric techniques of forensic anthropology employ reference materials for the morphological observations of the shape, size and texture of bone features. According to Kiely, in order to be admissible a scientific methodology should be capable of being tested for accuracy and error rates, be peer reviewed in the scientific community and be valid for enquiry.

The increasing use of forensic techniques in international investigations has generated debate as to whether the judiciary are capable of evaluating the credibility, reliability and weight of scientific evidence produced at trial. When experts can reach differing interpretations of evidence amongst themselves, the judiciary cannot make proper reliability assessments without an understanding of the science. If judges are not equipped with the necessary scientific expertise to assess the admissibility of forensic evidence, it could lead to decisions to wrongly exclude reliable evidence from proceedings or the admittance of evidence which may not stand up to defence scrutiny.

The lack of sufficient legislation relating to the use of forensic evidences especially legal legislations regulating the admissibility of forensic evidences in the international criminal proceedings, also the articles related to the expert witness are limited in both ICTY and ICTR as well as in ICC and last but not the least are articles that regulate the maintenance of chain of custody of evidence in the investigation and prosecution of international criminal proceedings, all are major stumbling block to international criminal courts as they are not sure whether the forensic evidences collected are enough, authentic to be accepted by the Courts to substantiate the claims i.e. guilt or innocence of accused thereby helping in administration of criminal matters.

In addition to the above we have observed that, the lack of sufficient legal provision that regulates the admissibility of forensic evidences and expert witness can affect the investigation, prosecution and trial in different way such as unnecessary complications, admitting doubtful evidence in court and can create bias or unnecessary confusion. Each of the mentioned effect has direct or indirect legal and trial consequences such as breaching of universal principles of fair trial judgement of international criminal courts and tribunal.

Again, the lack of one continuity only general evidentiary guidance in the ICC cases shows that the decision on the evidence integrity breach of chain of custody of evidence is determined by the Judge's discretion and this can lead to inconsistency even within the same case in investigating, prosecuting and trial of the offenders of atrocities in international criminal court and may lead to consequences like breach of legal and judicial principles such as; fair trial principle, principle of legality and presumption of innocent. Where by a judge can incriminate innocent person based on doubtful evidences.

Beside legal related challenges, research also exposed other challenges pertaining the administrative issues such as; funds to the international tribunal and hybrid tribunals has been a problem where by the country of offenders are in hostilities which international community has no funds to support sufficiently the forensic investigation to perform expensive scientific experiments such as DNA analysis, Pathology and anthropological mass grave exhumations are very expensive and even paying the forensic experts on duties of investigating the cases of that complex nature.

In addition to the above, other administrative related challenges are; lack of infrastructures such as machines to assist in investigation, some atrocities are committed in heavy rain forests like in DRC no shelter, no food, no roads to assist investigator but also lack of security whereby some evidences of mass graves are to be found in areas where there is still hostilities and some offender try to cover up the evidence by setting up grenades to prohibit investigators and prosecutor to reach at the crime scenes.

Administrative challenges may lead to absence of essential evidences to the case, conflicts among teams of investigation based on lack of salaries and poor safety precaution and poor working environment and they can affect the investigation and prosecution of international criminal proceeding in direct or indirect way hence unnecessary prolonged proceedings hence lack of fair trial.

In belief, regardless of highlighted legal and judicial obstacles as well as available administrative challenges that hinders the sufficient use of forensic evidences in the investigation and prosecution of international criminal proceedings, there are many potential reforms and enforcements discussed in the next sub chapter on analysis and discussion on potential reforms, if they can be adopted to well they can help to minimize the challenges discussed.

### **Analysis and Discussion on Possible Reforms**

**Standardize the Evidentiary Guidance Relating to the Evidence Admissibility under ICC:** According to the ICC

Statute and Rules of Evidence and Procedure the prosecutor has responsibility to correct all evidences and information which are related to the case while the chamber has a duty of rejecting any doubtful evidence. From this perspective, this challenge pertaining the admissibility of forensic evidence as stated, the rules are not sufficient enough to characterize the doubtful evidence. Therefore, there is a need of legal reform to add more articles or special guidance book related with rule of scientific evidence, their characteristics and they have to be rejected.

The special guidance handbook can help the prosecutors and judges with little knowledge in scientific evidence as well as technology, again they can be guidance to avoid any bias or unnecessary complication the investigation and prosecution of international criminal proceedings. And this standardization of the rules relating to the evidences admissibility in investigation and prosecution of international criminal proceedings can go together with formulate potential reforms and recommendations for legislation, institutional practice and policy to enable forensic evidences to be better utilized to their full potential.

#### **Standardize the Evidentiary Guidance on to the Chain of Custody of Evidence Under ICC**

Even if the chain of custody of evidence in the ICC was included in special regulation of the office of the prosecutor on regulation 22 that stipulates that, operation office of the prosecutor shall ensure an uninterrupted chain of custody of documents and all other types of evidence and that all evidence shall be in the possession of the chain of custody shall recorded but they are not sufficient enough in comparison to the growing field of forensic science and diversity of forensic evidences from biological evidence, toxicological, anthropological and even modern technological based forensic evidences such as digital forensics, DNA and Fingerprint technology they differ to each other.

From that highlighted inferences, there is a need of special regulations related to the chain of custody of forensic evidences in the investigation, prosecution and trial of international criminal proceedings. This regulations or rules vary depending on purpose of forensic evidence that is going to serve, type of evidence recovered as well as technology to be applied in examination of forensic evidence. This can also be useful to guide prosecutors and investigators to challenge the authenticity and even in admissibility of evidences collected by expert forensic scientists.

Reform and creating the sufficient special rules regulating the admissibility and special rules regulating the maintenance of the chain of custody of forensic evidence can produce the effective legal administration of justice by properly understanding of use of forensic evidence

in investigation, prosecution and trial of international criminal proceedings hence fair trial justice. This can also be beneficial as they can be model for standardization of investigative operating procedures of international criminal investigation by producing and implementing common approaches to the investigation of mass graves and recovery of evidence that can encourage consistency both within and amongst forensic teams at an international level and by integrating and unifying their efforts, a universal language amongst forensic practitioners may be created, leading to maximum effectiveness in the field. Hence adopted a harmonized common standard for forensic investigation, scene management and evidence recovery. Like, the Inforce Protocols created by Cox et al. under the auspices of the International Forensic Centre of Excellence (Inforce), the best practice recommendations from the ICRC's International Conference on the Missing and Their Families from 2003.

#### **Create Special Provisions Regulating Forensic Expert Presentation of Forensic Evidence**

According to the highlighted issue of forensic expert witness presentation, there is a need for further provisions for the presentation of forensic expert evidence at trial and within reports to be created and implemented. Witness proofing has not been accepted at the ICC but there are several benefits to making this practice available and accepted throughout international criminal proceedings. Experts would be more familiarized with court proceedings, their role at trial, their testimony and their recollection of events, which could lead to fewer mistakes and inconsistencies in court and a more streamlined experience. In addition, since no coaching is allowed to take place, witness proofing could benefit both the expert and the prosecution without having an adverse effect on the fairness of the trial. The create special provisions, regulations and guidance on forensic expert report writing and presentation can be beneficial to avoid the miscommunication between the prosecutor and forensic team in the supply of report-writing, it might be helpful to have report writing guidelines codified in international legislation and also this could also help to deter professional misconduct or unethical practice. This may help to diminish the challenge prosecutor and forensic expert objective conflict.

#### **Harmonization Rules of Evidences in International Proceeding with the Domestic Evidentiary Rules**

According to the Rwanda Law on evidence stipulates that each party has the burden of proving the facts it alleges. A judge may nevertheless order any contending party to produce elements of proof they have.

Even if the rules of procedure and procedure of the international criminal court have universal character as jurisdiction of the court is concerned but it is necessary, therefore, for international standards to be harmonized to consider local rules of evidences as long as forensic teams utilize and develop consistent scientific methodologies in the investigation of mass graves and that evidence is collected sounds scientific and legal principles. An example of a multidisciplinary team of investigation of the ICC may include; local forensic anthropologists, archaeologists, pathologists, palynologists, soil scientists, ballistics experts, DNA analysts and several other scientific and investigative roles.

### Increased Prioritization of Forensic Resources

The importance of uncovering and documenting grave crimes such as genocide for both prosecutorial and humanitarian interests demands a global investment. Whilst it is recognized that the costs of international criminal proceedings far exceed those of domestic investigations and trials, the Tribunals and the ICC need to give more importance to forensic science skills in their budgetary allocations. Increased financial investment would help ensure that forensic teams are adequately equipped with appropriate resources for undertaking the excavations of sites and analysis of evidence, in order to provide safe, reliable results. There is also a need for additional organizational structures pertaining to the planning and logistics of the mission, 206 and provisions for security teams to ensure the safety of staff and integrity of sites.

Furthermore, increasing each party's understanding of the other's profession, through education or training, could mean more appreciation of their perspectives, the dangers of case construction and/or the need to accept compromises such as site selection which are „beyond the forensic expert's control. Obviously, such training would need to be unbiased towards the defence, so that no prejudicial effect was created.

### Digital Forensic Investigations

The International Criminal Court (ICC) investigates and tries individuals charged with crimes of concern to the international community: genocide, war crimes and crimes against humanity. With regard to digital forensic investigations, the ICC has been confronted with various challenges especially derived from the nature of the crimes it handles and the fact that its procedure is distinct from national criminal procedure.

There is a need of special procedure regulations related to the activities so as to combat the challenges of digital forensics in international criminal investigations

and to further more international cooperation, standard establishment and the need for a joint effort at solving technical issues that may raise.

### Summary

Since its early use at Nuremberg, advances have been made in the deployment of forensic science to the investigation and prosecution of war crimes. The existing disciplines have been developed and utilised to much success, and new skills, such as DNA analysis, have been formulated to provide novel forms of evidence. However, in comparison to the modern forms of evidence such as documentary evidence and witness testimony, scientific contributions are still relatively small. This thesis has identified several obstacles which may hinder use of forensic evidences in international criminal proceedings. These challenges can be classified into two categories, namely; the legal challenges whereby there is insufficient legal provisions in statutes and rule of evidence and procedures of international courts regulating the admissibility of evidences and chain of custody of evidences in investigation and prosecution of international criminal proceedings. Secondly, the challenges pertaining to the administration and logistic such as; fund and finance to support in collection, examination of expensive forensic evidences such as; DNA analysis, pathology in case mass graves exhumation but also safety and security of forensic investigators as well as issues of scientific understanding.

The suggested reforms generated by this thesis benefits to both science and legal professions. Legal related reforms are; creating special regulation regarding admissibility of forensic evidence, maintenance of chain of custody of evidence as well as forensic expert report writing and presentation regulation that can help to minimize and where possible terminate the issues of bias and complications that may raise in admissibility of doubtful forensic evidences and issues of misunderstanding between forensic experts and prosecutor or judge during investigation, prosecution and trial. To improving the availability of resources and adoption of standard investigative procedures will provide consistency to procedures on site and help minimize team conflicts, with provisions for the presentation of expert testimony and reports providing uniform guidance for court proceedings. This could stop confusion over the presentation of testimony in court, as well as helping to ensure that the evidence is less vulnerable to attack and possible inadmissibility at court.

However, there is still scope to develop the fruitful interaction and collaboration between science and the law, such as through education and training. The Court's approach and ability to increase or even sustain its current level of crime scene investigations and exhumations given the considerable challenges the Court faces gathering,

analyzing such evidences, securing and investigating crime scenes in conflict zones is additional to the legal obstacles regarding the admissibility and chain of custody of evidences will be solved.

## Conclusion

Forensic science and the evidence by the investigation and excavation of alleged mass grave sites for justice and trial of offenders of atrocities but also forensic disciplines address many issues of the legal, humanitarian, documentary and preventative (deterrence effect) needs of the international community. The physical evidence recovered and testimony of forensic experts can be used in the trials of alleged offenders of war crimes, crimes against humanity and crimes of genocide by demonstrating the type and scale of atrocity, exhumations which can enable the identification of victims at personal level which can aid repatriation to their families. Forensic science also helps establish the truth of events to create an accurate historical record of the atrocity and then can deter future crimes by demonstrating the strength of forensic science as an investigatory tool.

This chapter enables researcher as well as readers to understand the summary of the research findings, the answer to the research questions and further research recommendations.

## Recommendations

As far as research is concerned the use of forensic evidences in investigation and prosecution of international criminal proceeding is paramount important in legal perspective as they are important in administration of justice but also important as humanitarian tool to return victims to their respective families and preventive tool to deter the repetition of atrocities in future.

Therefore, the recommendations of possible legal reform are; establishing the special forensic investigation operating procedure including crime scene management, forensic evidence collection and forensic evidence examination, special legal regulation of admissibility of forensic evidence in international criminal proceeding as well as special regulation of chain of custody of forensic evidence and expert report writing and presentation.

As they are of universal criminal justice interests, the institution which can implement the recommendations are;

The International Criminal Court as a permanent court that has jurisdiction over state parties' countries and references from UN Security Council as stated stipulated by Roman Statutes of the International Criminal Court on its article 4 par 2 that 'The court may exercise its function

and powers, as provided in the statute, on the territory of the state party and, by special agreement, on the territory of other state'. Therefore, the International Criminal Court can implement the proposed possible reform recommendation by establishing the standard forensic investigation operating procedures and special regulations relating to the admissibility of forensic evidences in investigation, prosecution and trial of international criminal proceeding as well as regulations regarding maintenance of chain of custody of forensic evidences and forensic expert report writing and presentation.

The United Nation as an intergovernmental organizations that according to its charter mandates the UN and its member states to maintain international peace and security, uphold international law is another institution through one of its bodies either UN Security Council or International Court of Justice can implement the proposed possible reform recommendation by establishing the standard forensic investigation operating procedures and special regulations relating to the admissibility of forensic evidences in investigation, prosecution and trial of international criminal proceeding as well as regulations regarding maintenance of chain of custody of forensic evidences and forensic expert report writing and presentation.

Any other International Humanitarian Organization such as The International Committee of the Red Cross (ICRC) as they are influential to the international community, they can implement the proposed possible reform recommendation by establishing the standard forensic investigation operating procedures and special regulations relating to the admissibility of forensic evidences in investigation, prosecution and trial of international criminal proceeding as well as regulations regarding maintenance of chain of custody of forensic evidences and forensic expert report writing and presentation.

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