



**EXCLUSIVE REPORT: THE FORENSIC INVESTIGATION OF HUMAN REMAINS  
DISCOVERED IN CHEMMANI AND OTHER AREAS IN JAFFNA**

# REVELATION OF Chemmani Graves

**REVELATIONS** about Chemmani graves were made in High Court of Colombo on July 3rd 1998 by Somaratna Rajapakse, the first accused in the Krishanthi Kumaraswamy rape and murder trial. According to Rajapakse's revelations there were several mass graves containing about 300 bodies in Chemmani and in surrounding areas in Jaffna Peninsula. These were the bodies of Tamil civilians who were arrested on suspicion for terrorist involvement, tortured

and killed by the security forces following Riviresa operation in April 1996. According to the information divulged by the convicted prisoner Rajapakse, along with a few other soldiers stationed at the Chemmani check point, they were alerted quite regularly in the camps such as Pungamkulam army camp, intelligence camp in Ariyalai East which was quite close to the Chemmani check point. Those arrested Tamil civilians have also been tortured at a building called Sivaneri

G 4/15/85  
08/09/1998

Institute, which is next to Kanagaratnam MMV (Stanley College). These corpses have been brought to the Chemmani check point in a tractor. The Tamil civilians were also said to have been tortured in the Charlie camp situated on the Colombuthurai road which runs parallel to and away from the Colombo Jaffna railway.

The Medico-legal investigations of alleged mass graves in Chemmani is an unique event, because it was the first occasion where such a complex investigation was undertaken in Jaffna peninsula of Sri Lanka where there was an ongoing civil war. This decision has been hailed as a courageous step by the United States government and has commended Sri Lankan government for investigating the human rights violations committed by its own security forces. The objectives of the Chemmani investigation were to identification of the graves, exhumation of the bodies, ascertainment of the cause and manner of death, establishment of identity of the dead and institution of criminal proceedings against those responsible.

When questioned by the officers of the Criminal Investigations Department (CID), the other convicted prisoners of the Krishanthi Kumaraswamy rape murder trial, DM Jayasinghe, ASP Perera, Pradeep Priyadarshana and DM Jayathilaka confirmed what Rajapakse said in High Court after his conviction and informed CID that they are willing to show the graves only to the Magistrate at the commencement of excavation.

Chemmani is a largely uninhabited flat paddy land lying along the Kandy-Jaffna A9 trunk road to the east of Ariyalai village. The Chemmani checkpoint is located away from Jaffna town board and about 50m towards Jaffna from a concrete arch across the Kandy-Jaffna A9 trunk road. The road to

Nallur commences to the North-West of the checkpoint. About 200m from the checkpoint towards North-East from the Nallur road is a gravel road leading to a saltern. Along the Kandy- Jaffna road, towards Jaffna is a two storied building called Jaya building in which the prisoners were said to have been tortured. From the Kandy-Jaffna road the Navalar road starts at the Mampalam junction.

All the members of the investigating team were flown from Ratmalana airport in Russian made A 26/32 Antonoff aircrafts. The risk of a missile attack was ever present. There were some who backed out due to fear psychosis.

### **Role of Human Rights Commission (HRC) of Sri Lanka**

Since the disclosure by the convicted prisoners, a press release from the Presidential Secretariat said that the investigations of the alleged mass graves were handed over to the Human Rights Commission (HRC) of Sri Lanka. The HRC sought the help of the United Nations Commission for Human Rights (UNCHR) for these investigations. However according to the section 373 (2) of the Criminal Procedure Code Act No. 15 of 1979 investigation of any criminal matter where the suspects are to be tried in a Criminal Court of Sri Lanka, the post mortem examination has to be performed by a medical officer registered in Sri Lanka Medical Council and there is no provision for foreign experts to give evidence for the prosecution in the examination -in-chief. However foreign experts may be summoned during the trial either by the prosecution or the defense. Having realized this the Attorney General took over the investigations and ordered CID to take detail statements from Somaratna Rajapakse and other convicted prisoners to inquire into the

possibility of indicting those responsible in a court of law in Sri Lanka for abduction, torture and murder.

Dr. William D Haglund, Director of the International Forensic Programme of the Physicians for Human Rights, Boston, USA visited Sri Lanka from Dec 3 to 6, 1998 under the patronage of the Asia Foundation and the Human Rights Commission of Sri Lanka. Dr. Haglund conducted a one-day Forensic seminar to the members of the Human Rights Commission of Sri Lanka, officers of the Attorney General Department of Sri Lanka, Police and the Forensic Specialists of Sri Lanka. The purpose of this seminar was to address potential future development of investigating human rights abuses in Jaffna and Northern peninsula of Sri Lanka.

### Role of Attorney General



*Photo: Late- Professor Niriella and Dr. Kevin Lee, a forensic pathologist from Australia during the exhumation process*

It is necessary to appoint a senior administrative officer<sup>2</sup> to co-ordinate the services of several experts and state departments, such as the departments of the Police, Government Analyst, Archaeology, Health, Surveyors, the Sri Lanka Army and the Universities in view of enormous complexity of the investigation and the necessity to obtain the support of these departments.

The Attorney General (AG) appointed state counsel Mr. Yasantha Kodagoda (presently senior state counsel) to co-ordinate the activities. In view of the experience of Professor Niriellage Chandrasiri in mass grave examinations in Bosnia the AG recommended to the Courts that Dr. Niriellage Chandrasiri, Senior Professor of Forensic Medicine, University of Ruhuna to be in charge of excavation of mass graves, laboratory examination of skeletal remains and submission of the final report to the courts.

### Role of Magistrate

According to Criminal Justice Law in Sri Lanka an exhumation can only be done on the orders of a Magistrate as laid down in the Section 373 (2) of the Code of Criminal Procedure Act No. 15 of 1979. Hon SAE Ehanathan, the Chief Magistrate of Jaffna refused to conduct the preliminary judicial proceedings of Chemmani investigations. The judicial Services Commission (JSC) thereafter appointed Hon M. Arulsagaran as additional magistrate, Jaffna for the same purpose in March 1999. Hon M. Arulsagaran disappeared after a preliminary hearing and participating in the reconnaissance trip to Chemmani area. The JSC then appointed Hon M. Elancheliyan, permanent Magistrate of Mannar as Additional Magistrate Jaffna. Thereafter Hon. M. Elancheliya was the presiding Judge throughout the investigation.

Hon M. Elancheliyan supervised the field excavation procedures on all days from the beginning to the end of the investigations. The summary of the work done and the findings were reported by State Counsel Mr. Yasantha Kodagoda and the Chief Forensic Pathologist to the Hon Magistrate at the conclusion of each day and they were recorded as court proceedings.

## **Role of the Criminal Investigations Department**

The role of the CID was to obtain evidence in order institute criminal proceedings against any officers of the security forces who were responsible for abduction, torture and extra judicial executions of Tamil civilians in Jaffna. In order to achieve this, CID obtained detailed statements from five aforementioned convicted prisoners while they were in the maximum-security section of Welikada prison, to find out the gravesites and identify the alleged assailants. Somaratna Rajapaksa and all other convicted prisoners gave detail statements describing the incidents of torture and named the officers and other soldiers responsible. In addition they vividly described the methods of torture, where torture was done, how the bodies were brought to Chemmani and other areas at night, the names of higher army officers who gave orders to bury the dead and how and by whom they were buried either in bunkers made by the LTTE or in freshly dug shallow graves. All of them vehemently refused to mention the grave sites to CID for fear that the information would leak out and security forces in Jaffna would remove the bodies from graves. All of them said that they would only show the sites when excavations are commenced and only to Magistrate. The CID reported these facts to the permanent Magistrate of Jaffna Hon Ehanathan.

## **Multi-disciplinary approach**

Forensic investigation of alleged mass graves should be conducted by experts in several disciplines<sup>3</sup> such as Forensic Pathology, Archaeology (preferably Forensic Archaeology) Forensic Anthropology, Soil Science, Botany, Surveying, Forensic Science, Photography and Videography. Forensic archaeological techniques provide the most

effective and efficient methods by which data are collected from mass graves and as such have an important role to play in the forensic investigation involving decomposing or decomposed human remains. The anthropologist should become involved prior to excavation investigation. In order to actively and effectively participate in the multidisciplinary field of modern forensic investigation, forensic anthropology must encompass not only the laboratory analysis of completely or partially skeletonized human remains, but also requires the collection and analysis of contextual information routinely obtained through standard archaeological techniques.

There were several discussions among Chief Forensic Pathologist, State Counsel, Officers of CID, SSP Jaffna and Engineers of Army from Jaffna in order to work out the necessary plan to obtain heavy equipment such as bachoe machine, water bousars, cranes, mammoties, crowbars, tents etc. The security of the members of the investigating team and their stay in Jaffna was co-ordinated by Mr. Nimal Mediwaka, SSP Jaffna. Daily travelling from "Tal Sevana" where the investigators stayed, to the grave site was handled by officers of the Army. It took 45 minutes to travel in fast moving vehicles from Chemmani area to Kankasanthurai where the team resided.

## **Preparatory work**

Careful detail planning is an essential pre-requisite for the successful performance of mass grave exhumations and examination of skeletal remains. In view of this there were number of discussions extending over several months, between the Chief Forensic Pathologist, officers of the Criminal Investigation Department (CID), Mr. Nimal Mediwaka, SSP Jaffna, Colonel Janaka Walgama of the Sri Lanka



Army, Archaeologists and officers in the Department of the Attorney general of Sri Lanka with the Chairmanship of Senior State Counsel, Mr. Yasantha Kodagoda, the co-ordinator of the investigations. The details regarding transport, security of personnel and informant prisoners, security of graves, logistic requirements for the field excavation, lodging for the team were discussed at these meetings. The success of the excavation was due to this detail planning.

As required for a field excavation of this nature three wooden crates measuring 2 ½ feet x 2 ½ feet x 2 feet and weighing about 500kg were air lifted to Jaffna by air force planes. The crates contained all the light items such as stationary, body bags, trowels, pegs, polythene bags, dental picks, bamboo picks, graph paper for mapping, polythene rolls, flags, short handled sharpened shovels, pick axes, 18" square 1/8" mesh screen, 24" square 1/4" mesh screen, compasses, levels, 50 feet long measuring tapes, plumb bob, line levels, string, labels, directional arrow marked in inches or centimeters, and all other consumable items. All light equipment and consumables were purchased by the Chief Forensic Pathologist. Bags to collect human remains were specially made according to specific standards by the Chief Forensic Pathologist.

### **Necessity of foreign observers**

Tamil politicians and various non-governmental organizations (NGOO) interested in Human Rights violations strongly urged that there should be foreign experts observing the entire Chemmani investigations. This was a reasonable request as forensic investigation of this nature has not been conducted by any Forensic Pathologist in Sri Lanka up to then. The Attorney General's Department agreed to this suggestion and recommended to

Magistrate that any interested party could bring such forensic experts. Accordingly Dr. W.D. Haglund, Forensic Anthropologist and Director of International Forensic Medicine Programme of Physicians for Human Rights (PHR) in United States of America, Ms. Melissa M Connors, Forensic Archaeologist of PHR, Mr. R.D. Stair from the Coroner's Forensic Identification Unit of Ministry of Attorney General of British Columbia, Canada. Drs. Kevin P. Lee Forensic Pathologist from Australia and Ms. Tal Simmons, Forensic Anthropologist from USA participated as foreign observers. Their travel and stay in Sri Lanka was funded by facilitator Mr. Mark McKenna Reid, Director Asia Foundation, Colombo.

A memorandum of understanding (MOU) was signed on behalf of the foreign experts by Mr. Mark McKenna Reade and by Hon Attorney General of Sri Lanka on behalf of the government of Sri Lanka. According to MOU the foreign observers could suggest any methods or criticize any procedure adopted by the Chief Forensic Pathologist regarding the investigations at any stage. The scientific procedures could be altered during excavations with bilateral agreement, but the ultimate decision on the technical procedures was in the hands of the Chief Forensic Pathologist.

### **Task of foreign observers**

Dr. W.D. Haglund (Forensic anthropologist), Ms. Mellissa M Connors (Forensic archaeologist) from Physicians for Human Rights of United States of America, Mr. R.D. Stair from the Coroner's Forensic Identification Unit of the Ministry of Attorney General of British Columbia, Canada and Dr. Kevin P Lee (Forensic Pathologist) from Australia participated as observers in this excavation procedure. Dr. Haglund and Mr. Stair did not stay throughout and Dr. Lee

joined the observers' team half way. However Ms. Mellissa M. Connors participated as an observer throughout the excavation from August 30 to September 22, 1999.

In accordance with the MOU after the commencement of the field work, discussions were held between foreign observers, Chief Forensic Pathologist, the state counsel Mr. Yasantha Kodagoda and Mr. Mark McKenna Reade of the Asia Foundation. An agreement was reached to discuss the procedures to be adopted at the beginning of each day regarding excavation of human remains. The foreign observers agreed to submit a written report of their observations regarding the daily excavation procedures to the Chief Forensic Pathologist and the State Counsel. The submission of feedback was started on September 7, 1999 and continued until 21.09.99. The foreign observers were meticulously watching the day's proceedings of the excavation. The feedback on day's proceedings of 22.09.99 was not submitted by the foreign observers. The foreign observers submitted written comments on the day's excavation procedure to the Chief Forensic Pathologist from September 7th to 21st highlighting the positive and negative aspects of the excavation procedures. The comments of these reports were discussed with the state counsel and wherever possible appropriate corrective actions were taken. The foreign observers are expected to submit their final report regarding the investigation directly to the Attorney General of Sri Lanka.

#### **Composition of the local scientific team Medical and other experts**

The scientific team comprised of Professor Niriellage Chandrasiri (Chief Forensic Pathologist), Drs. P.R. Ruwanpura (Medico-legal Consultant) Teaching Hospital Karapitiya Galle, D.L. Waidyaratne (Medico-legal Consultant) General Hospital

Anuradhapura, HTK Wijayaweera (Assistant Judicial Medical Officer), UCP Perera (Assistant Judicial Medical Officer), M. Vidanapathirana (Assistant Judicial Medical Officer) and DD Samaraweera (Grade Medical Officer) and Messrs Nimal Perera and LVA de Mel (Archaeological Officers) and Dr. K.A. Nandasena (Soil Scientist) from the Faculty of Agriculture, University of Peradeniya. Except doctors M. Vidanapathirana and DD Samaraweera all others participated almost throughout in the field excavations. Doctors PR Ruwanpura, UCP Perera and HTK Wijayaweera were not available for a few days. Mr. Yasantha Kodagoda was responsible for proceedings in the Magistrate Court of Jaffna and the legal procedures during the field excavation; particularly in reporting the daily proceedings of the excavation and results to Hon Magistrate Elancheliyan.

Dr. K. Nandasena of Department of Agriculture of University of Peradeniya collected and analysed soil samples. Messrs. Nimal Perera and Alfred de Mel, Archaeological officers helped in the identification of graves and exposure of bodies. They were assisted by seven skilled archaeological excavators. The photography and videography were done by technical officers of CID. Mr. MAJ Mendis, Senior Assistant Government Analyst took part in pilot phase of the investigation in collecting artefacts and clothes. The activities of Police Department was coordinated and supervised by Mr. Nandana Munasinghe, Senior Superintendent of Police of CID.

#### **Non-medical personnel**

There were 7 skilled archaeological field excavators who participated throughout in the excavation process in addition to the services of 10 unskilled labourers participated in the excavation from 15.09.99 to 22.09.99.

These labourers were obtained by the efforts of Dr. D.L. Waidyaratna and the courtesy of Provincial Director of Health Services, North Central Province. The scientific team worked continuously from August 30th to September 22, 1999 except on Sundays.

The Chief Forensic Pathologist was in charge of supervision of manual excavation, use of backhoe machine, identification of the grave patch, photographing bodies, photography, video recording, removal of skeletons and artefacts, inventoring and packing of body parts into specially made locally produced body bags, documentation of topography and vegetation, grave sites, sketching of graves and the position of the bodies in the graves.

### **Logistic support**

High standard of logistic support, such as provision of backhoe machine, crane and demining facilities were provided by Colonel Janaka Walgama of the Army engineers division based at Palali. Water supply and all other supportive services such as transportation and security for the team were provided by the Jaffna Police station. Jaffna Police also provided four unskilled labourers who worked tirelessly during excavation.

### **Reconnaissance visit**

Reconnaissance or a preliminary visit to the suspected grave sites is essential prior to examination of alleged mass graves. The objectives of the reconnaissance visit are to obtain an idea regarding the possible sites of the graves, nature of the soil to be excavated, select the type of heavy machinery required to conduct the excavation, the sites where the temporary sheds to be constructed, and where temporary wells and toilets to be constructed for use of the persons working

at site. The reconnaissance visit was done in March 5th 1999. Unfortunately by this time the forensic investigators were not aware of the exact site of burial but only had a rough idea where the graves could be. The Forensic Pathologist examined the ground behind the check point and did not notice any human remains or stripping or damage to bark of trees, any unusual mounds or depressions and fresh localized vegetation in the soil indicating previous burials. This was because the burial was 3 years before. As proposed site was a bare uninhabited land the investigators decided that all light and heavy equipment necessary for excavation and packing of human remains and artefacts had to be brought to the site in sufficient quantity. The sites to build the temporary tents were selected after prisoners showed the grave sites. There were no human remains recovered from the proposed site during the reconnaissance visit. Searching trenches 2' wide x 4' deep should have been dug in the proposed site during reconnaissance visit but it was not done as the grave sites were not known. If skeletal parts are seen when searching trenches are done, they should not be removed during this process, but kept in situ, photographed and video recorded, reported to the Magistrate, a flag buried at the site and the site should be handed over to the police for 24 hour guarding. The soil scientist obtained specimens of soil from several places, tested them for compaction, mixing and examined for foreign materials such as dead plants indicating fresh digging and reburial. The soil scientist's report was inconclusive. However blind probing, sniffing the odour on the tip of the probe for smell of sulphur and observing for decomposed flesh was done using an auger (a 15 feet long one inch diameter metal probe) in the ground suspected to have graves. The results were negative.

## Pilot phase

The forensic team decided to do a pilot excavation as the team needed a direct experience in excavating mass graves. The pilot excavation was done from June 15 to 18, 1999 and was observed by foreign experts Drs. Haglund, Kevin Lee and Melissa M Connors. The convicted prisoners Rajapakse was brought to Chemmani check point and was asked to show a grave site to the magistrate. He showed an area of ground with shrubs adjacent to a metal pillar buried in the soil at the junction where the road to the saltern commenced from the Nallur road. Prisoner Rajapakse also informed the Magistrate that the bodies of the two persons buried in this grave were that of one Mahendran Uthaskaran, age 23 years, and Rasaiah Sathiskumar, age 28 years and both of them had been working as mechanics at a workshop in Ariyalai. De miners of the army bomb disposal squad examined the surface of the land shown by Rajapakse's declared that there were no land mines. The tree in this area was removed and surface soil skimmed by labourers using mammoties. Blind probing was not done as Rajapakse's testimony was available which is a reliable method of locating the grave. After this, the soil in this area was removed in 6 inches thick layers. At a depth of around 4 feet from the ground level a rectangular patch measuring 9 feet x 3.5 feet was visible. The soil on this area was dryer and lighter in colour than surrounding soil. A trench 1 foot broad and 2 feet deep was made at one end of this patch and the soil was removed from this patch using trovels. Two skeltonised bodies covered in mud were recovered under this patch at a depth of 5 feet. The soil under the patch was muddy and it was not possible to pedestal these two bodies. The two bodies were fully clothes. They were photographed and video recorded in situ. Different depths of the anatomical positions of the bodies

were recorded and the bones of the two bodies were removed and packed in two bags. Body no B1 and B2 were designated to these bodies. The clothes were removed, washed and packed separately in other bags. The clothes from the bodies disinterred were shown on 17th July 1999 to likely relations in order to make a provisional identification. A temporary tent was constructed in the premises of police station of Jaffna. One body was identified as of Rasaiah Sathis Kumar by his wife and second body was identified as of Mahendran Uthaskaran by his sister. Identification was made by inspecting banions, shirt and the trousers. The identification also confirmed by employer of the two dead persons, who also identify the clothes. The clothes were handed over to CID for safe custody and to be produced at trial if necessary. The two bodies B1 and B2 were put in two body bags, handed over to the CID and they were brought to the General Hospital (Teaching) Karapitiya for further examination. They were examined on June 22 to 25 in the laboratory of the Department of Forensic Medicine in the presence of Drs. Haglund, Lee and Ms. Connors. Initially the two bodies were x-rayed to find out whether there were pellets or bullets or metallic shadows like pins, plates, wires and dental fillings which may be useful in identification. There were no artificial shadows in x-ray films taken from bodies B1 and B2. The two bodies were cleaned with fine brushes using running water in the mortuary of General Hospital, Karapitiya. The wet bones were arranged on tables in the anatomical position with the hands supinated and allowed to dry on tissue paper.

## Final excavation

The final excavation of all the graves was conducted from 1st to 22nd September 1999. Representations were made to the Magistrate Hon Elancheliyan by the Attorneys on behalf



of the missing persons, to be present when the prisoners show the grave sites. This request was allowed. All the prisoners were brought to Chemmani on August 30th and were asked to show grave sites in the presence of Magistrate Hon Elancheliyan, Forensic Pathologist and other officers of CID. In order to prevent a prisoner showing the same grave site shown by the previous prisoners, they were brought one by one and were asked to show the grave sites. There were 27 graves shown by the prisoners in the 8 grave sites, shown by them. **The letters of A to H of the alphabet were given to those grave sites.**

One of the grave suspicions that were raised by the nongovernmental organizations interested in human rights and the Tamil community in Jaffna was whether the bodies were removed from the graves after the revelations of Chemmani graves by Somaratna Rajapakse. The team used the stratification principle of soil<sup>3</sup> in archaeological excavation to see whether the bodies have been removed. Stratification of soil is the sequential laying of soil deposits. Stratification obeys the law of superimposition, original horizontality and intersecting relationship. None of the vertical walls of the graves showed discontinuity in stratification indicating that the graves have been disturbed.

### Identification of graves

Identification of the graves were done between August 30th and September 1st 1999 in the presence of Hon Magistrate M Ellancheliyan, foreign observers, local forensic experts, attorneys looking after the interests of the missing persons and the local press. Somaratna Rajapakse showed 14 graves, DM Jayasinghe showed 4 graves, AS Priyashantha Perera showed 5 graves,

Pradeep Priyadharshana showed 2 graves and DM Jayathilake showed 2 graves. A total of 27 graves were shown by all five prisoners. The spread of the graves were: an area behind a small Kovil opposite Chemmani check point, area immediately behind the Chemmani check point, the saltern in Chemmani area, area around Kottukinaru pulleyar Kovil in Ariyale, unused well in the land next to premises number 815, Jaffna-Kandy A9 trunk road, behind Jaya building, behind the Sivaneri institute situated at 839, Navalar Road, Jaffna and behind Charlie camp at Colomputhurai.

While showing the graves the prisoners also informed the Magistrate, the number of bodies in each grave, identification, sex and place of residence of the deceased, how the bodies were brought to the grave site and by whom the bodies were buried.

The prisoners were asked to show the grave sites individually and the sites were video graphed and photographed by keeping four persons at the four corners of each grave site shown by each prisoner. This was to ensure that each prisoner was prevented noticing the grave shown by another prisoner. After that the Govt. Surveyors Mr. Balasundaram and Mr. Sivapalasekeran placed pegs at the four corner of each grave site and identified their positions from immovable object such as borders of the roads, buildings and trees etc. Each grave was surveyed and marked in separate maps according to the grave sites as indicated by letters A, B, C, D, F, G and H. The positions of the graves were then marked in a large map prepared by the division of the Survey Department, Jaffna. The map provided by the surveyor was used throughout the excavations to identify graves. The pegs were kept in position until the excavation commenced.

## Excavation procedure

The procedure adopted in the excavation consisted of several stages. Each stage was photographed and video recorded by photographic technicians of the CID. The stages consisted of, de-mining by the army bomb disposal squad, demarcating the grave areas with wooden pegs and coir ropes, searching the surface of the site for clothes, foot wear, cartridge cases, bullets, human bones, and unusual artifacts, removing the trees and all plants, skimming the surface soil with a bachoe or manually, removing the soil in 6 inches thick layers until a patch of soil is obtained. The soil is gradually removed from the patch using small trowels until human remains are discovered.

The initial skimming of surface soil using a bachoe machine was done to a depth of three feet in the area behind the Chemmani check point (site A) and in saltern (site C) which had hard surface soil. A medical officers was kept to watch the contents of the bucket while bachoeing. This medical officer was instructed to notice whether any human remains were lifted with the soil and bachoeing was terminated immediately if such an instance occurred. In fact such a incident occurred when the bachoe was used in site behind Chemmani check point. Later skimming of surface soil was done using labourer until a patch of the grave was identified.

Blind probing 4 of the grave sites shown by the prisoners were conducted using an auger after skimming of the site using the bachoe. Decomposing flesh was only discovered in a grave site (A) opposite the small Kovil and in the grave site (D) around the Kottukinaru Pulleyar Kovil. The excavation of the grave sites was conducted by skilled archaeological technicians under the supervision of the Chief Forensic Pathologist.

An extra grave was, detected by the forensic team while “skimming” (removing thin layers of soil) of the surface soil in site A. The area of each grave excavated was at least 25% more than the area pegged out. In the site opposite the Chemmani check point, the area excavated was about 20 times the area of graves shown by the prisoners. Two to three inch thick layers of surface soil were removed at a time from the supposed grave with mammoties by several labourers. This process was continued in the entire area of the grave until a patch of filled earth was observed. The patch of filled earth was identified with the help of archaeologists and soil scientist by the difference of colour and consistency and by comparing with adjacent soil. Manual scraping using small trowels was continued until the patch was well defined. The archaeologists then took over the excavation and started pedestalling the patch. A trench 2 feet broad and 2 feet deep was cut around the patch wherever possible. The skilled archaeological excavators continued pedestalling until human remains were observed. Complete pedestalling was carried out by these skilled archaeological workers until 50% of the human remains were exposed above the earth.

The excavation was done by trained archaeological assistants. Once human remains were discovered soil adjacent to the body was removed using small brushes, chopsticks and fingers exposing 50% of the body. This process is called pedestalling and indicates how the body was placed in the grave. Once a body was satisfactorily pedestalling and exposed the chief Forensic Pathologist obtained depths of the various anatomical landmarks using a plumb and recorded in the note book. Once the position of a body was recorded in the note book by the chief Pathologist, depths obtained, the position of a body recorded and video-graphed, the chief Forensic Pathologist

carefully removed the bones, recorded the bones removed and put them in to the body bags which were labeled accurately with indelible ink. The video cassette is in the custody of the CID.

### **Surveying and mapping of the graves**

The Govt Surveyors Mr. S. Balasundaram and S. Siyapalasekaran identified the four corners of the grave with short wooden pegs. The number of the grave was written with indelible ink on these wooden pegs. The boundaries of the grave were demarcated by connecting the four pegs with coir ropes. Letters of the alphabet A to H were given to grave sites. There were several graves in each grave site except in grave site E which was a discarded well. Suspected grave site E was a well.

### **Photographing, video recording and recording of skeletal remains**

Once a body was completely pedestalled its position was sketched by the Chief Forensic Pathologist in a record book. The archaeological assistants recorded the position of the body in the grave on graph paper using archaeological techniques. The position of the skeletal remains was video recorded and still photographs were obtained placing a label designated as J.C/ SITE -- ---- / Body No. ----- indicating the date and an arrow indicating the North-South direction. The grave sites were designated using capital letters A to H and bodies were given numerical numbers from 3 to 15, numbers 1 and 2 being given to the two bodies recovered in the pilot phase in the grave located at the junction between the road to Nallur Kovil and the side road to the saltern.

### **Obtaining depths of anatomical positions**

The medical officers then obtained the depths of the different anatomical positions of the skeleton from the ground level using a plumb bob and a measuring tape. The levels were recorded in the register by the Chief Forensic Pathologist.

### **Mapping and removal of skeletal remains**

Once the measurements were completed archaeological workers mapped the body on a graph paper. Mapping was done only in some of the bodies due to lack of time. Also annexed are the maps of the skeleton prepared by the Assistant Archaeologist showing the positions inside the graves of bodies B5 from grave site A, B6 & B7 from grave site B, B8 from grave site B and B9 from grave site B, B11 from grave site b, B12 from grave site D, B14 from grave site D and B15 grave site D at the graves. Mapping was not done in skeletons of B3, B4, B10 and B13 due to lack of time.

After completion of mapping under the guidance and supervision of the Chief Forensic Pathologist the medical officers then removed the skeletal remains in a sequential manner and inventorized them in a register. The skull with mandible containing teeth was taken together en-masse, wrapped in paper, labeled, secured and put into a body bag which was labeled with site, grave number, body number and date of removal.

Similarly the bones of right and left hands and feet were removed en-masse, carefully cleaned and put into separate polythene bags which were similarly labeled and finally put into body bags containing the rest of the bones of the same skeleton. The body bags were secured and handed over to the police officer of CID for safe custody. The body bags were in custody of Jaffna Police station

until they were brought to the mortuary of the General Hospital, Karapitiya and handed over to the Chief Forensic Pathologist.

### **Confirmation of natural bed of soil**

Once the bodies were removed the soil beneath the body was screened for artefacts and other small bones. Dry screening was used with sandy soil and wet screening was used with wet soil. Several hundred weights of soil were screened in this manner. Few bones obtained by screening the soil were put into respective body bags.

The opinion of the soil scientist was obtained to decide whether the bed of natural soil has been reached. The soil scientist performed his task by digging test pits, scooping the soil bed and comparing it with adjacent natural soil. Even though the Chief Forensic Pathologist declared that natural bed of soil had been visualized and there was no justifiable scientific reason for excavation Hon Magistrate insisted that the bed of the grave should be excavated using the small bucket of the bachoe in order to satisfy public interest. Foreign observers also backed the Magistrate in this regard. Therefore the Chief Forensic Pathologist with reluctance agreed for said procedure in all graves except in grave E ( unused well) and H (behind Charli camp) once the soil scientists and the Chief Forensic Pathologist declared that the natural bed had been reached and there is no reasons for continuing excavation any further. It is noteworthy to mention that any bones or artefacts were not found when bachoeing was done after reaching the bed of natural soil.

### **Screening soil from graves**

The soil immediately above the body and beneath the body was screened carefully. Dry screening and wet screening were

carried out accordingly. Several hundreds of kilograms of soil were screened using two metal screens using unskilled labourers under the supervision of a medical officer and few bones of the hand and feet were recovered. These bones were put into an extra body bag which was labeled as miscellaneous. The artefacts obtained were put into polythene bags and handed over to the officers of CID who were present at field procedures.

### **Excavation of well (Site E)**

On the advice of local forensic experts a controlled explosion using 50 grams of C4 plastic explosive was conducted in the well in site E. This is to ensure that the well was not mined. There were no secondary explosions indicating that there were no unexploded mines/ grenades at the bottom of the said well. The water, soil and rubble were removed from the well using an empty oil barrel and a crane. Excavation was conducted using unskilled labourers under the supervision of a medical officer. The sludge and soil removed from the well were screened by a medical officer using a water obtained from a bowser. There were no human remains/ bones discovered in the soil.

### **Recalling of prisoner RD Somaratna Rajapakse**

As there were far less bodies disinterred when compared to the information given by prisoner Rajapakse (P1), he was brought again to Chemmani and grave sites A,B, and C were shown to him on September 21, 1999. The Magistrate inquired from prisoner Rajapakse whether excavation has been done on the areas which were originally shown by him. Prisoner Rajapakse responded to this query in the affirmative.



## Summary of findings

All five prisoners showed a total of 27 graves including the one shown in the pilot phase. The two new grave sites were shown by informants but there were no bodies in them and one grave was discovered by the forensic experts during excavation. A total of 13 bodies (B3- B15) were recovered from September 6 -22, 1999 and two bodies (B1 & B2) were discovered in the pilot phase.

The bodies designated as B1 and B2 discovered in the pilot phase were fully clothed and the balance 13 bodies had no clothes except for underwear in some of them. Some of the bodies were totally nude. Some bodies had injuries caused just before death (peri mortem injuries) produced by blunt trauma which could account for death. Body B6 had a "poona noola" and underwear with elastic bands. Body B7 had a blue coloured skirt, intra uterine contraceptive coil, gold nose stud, a toe ring and a black thick cord around left wrist, body B13 had a rope around left humerus. Body B15 had a Kharky shirt, remnants of a nylon underwear and a ligature around the right forearm. The artefacts and personal items were handed over to officers of the CID for safe custody. The artefacts such as personal items will be used for provisional identification in the future in Jaffna. It is envisaged that the artefacts/ personal items will be shown in the near future to the relations and friends of the missing persons in Jaffna so that the numbers of people identifying will be reduced so that profiles of mitochondrial DNA analysis could be done in a limited number of relations.

The positions of the skeletons in the graves showed the original position of the bodies when they were laid inside the graves. These positions conclusively exclude the possibility of legal and/or ritual burial/s.

This is important because there is a cemetery fairly close to the Chemmani check point.

## Objectives of the laboratory examination

The objectives of the laboratory examination were to,

- make provisional identification of the deceased
- establish the age of the deceased
- establish the sex of the deceased
- establish the stature of the deceased
- ascertain cause of death
- ascertain whether such cause of death is homicide or not.

The foreign observers, Forensic Anthropologist Drs. Tal Simmons and Forensic Pathologist Kevin Lee jointly examined the 15 skeletons and discussed the findings with the Chief Forensic Pathologist. They will submit their report to the Attorney General of Sri Lanka.

The steps in the laboratory examination consisted of cleaning the bones free of dirt, drying, laying them in the anatomical distribution, inventorising the bones, recording injuries such as fractures and cuts etc., caused just before death (peri mortem), recording pathological conditions congenital deformities etc., as stated above present during life, recording injuries caused during excavation and changes produced by burial.

## Laboratory Examination

The laboratory examination of skeletons was conducted individually by Professor Niriellage Chandrasiri with the assistance of other medical officers Drs. PR Ruwanpura, DL Waidyaratna, HTK Wijayaweera, UCP Perera, M Vidanapathirana and DD Samaraweera from October 18th to October 22nd, 1999 in the Department of Forensic Medicine, University of Ruhuna. The foreign

observers Dr. Tal Simmons and Dr. Kevin Lee made their own observations and will be submitting their reports on the laboratory examinations of the skeletal remains to the Attorney General of Sri Lanka.

### **Cleaning and examination of skeletal remains**

The skeletons were cleaned by removing mud with small and large brushes using running water. The bones were inventorised, ante mortem injuries and status of the bones and post mortem trauma and peri-mortem trauma identified and recorded by the chief forensic pathologist on protocol forms. The age, sex and stature was determined by performing examination of skeletal remains in the presence of Drs. Tal Simmons and Kevin Lee who participated as foreign observers from October 18 to 22, 1999 in the mortuary of General Hospital (Teaching) Karapitiya and laboratory of the Department of Forensic Medicine, Ruhuna, Galle.

Bones of each skeleton were cleaned in running water using larger and fine brushes in the mortuary of General Hospital, (Teaching) Karapitiya, Galle. No detergents were used in the process. The bones of the 15 skeletons were then arranged on tables in the anatomical distribution in the prone position with the hands supinated (Thumbs placed outwards). The bones were allowed to dry in the said position. All the bones were marked with indelible ink with the respective body number (B----). Once the bones were dry an inventory of bones were recorded on previously prepared protocol forms.

### **Recording of skeletal data**

The sex, age of the bones present, whether bones are complete, fragmentary or absent, the stature of the body, pathological conditions such as osteophytes, myositis

ossificans, infectious process, osteoma, other neoplasm, spondylolysis, spina bifida occulta, scoliosis, kyphosis, cleft palate, other congenital abnormalities and healed fracture, healing fracture, displaced healed fracture, healed fracture with shortening, healed depressed fracture, compression fracture, pseudarthrosis, dislocation, slipped epiphysis, osteoarthritis and the bones present, evidence of peri-mortem trauma such as sharp force trauma, blunt force trauma, gunshot wound, projectile fragment wound, whole bullet embedded, projectile fragment embedded, bullet jacket embedded, evidence of post mortem changes such as staining, erosion, bleaching, excavation damage, root etching and post mortem fracture, dental evidence such as caries, restoration, crown work, ante mortem extractions, post mortem falling of teeth, unerupted teeth, rotations, extra cusps, discolouring of teeth, pegging of teeth, rotation of teeth presence of supernumerary teeth were all recorded in a prepared protocol type of autopsy report 4.

## **Analysis**

### **Establishment of provisional identification**

Provisional identification was made by identifying healed fractures, displaced fractures, shortening of long bones, healed depressed fractures, compression fractures, dislocation of joints etc., osteoarthritis, osteophytes, infectious processes, osteomas, spina bifida occulta, scoliosis, kyphosis, cleft palates and other congenital abnormalities etc. and dental data such as caries, overcrowding, fractures, presence of dentures, restoration with amalgam, gold, silver, porcelain, wire, plastic, etc., rotation of teeth, presence of supernumerary teeth, enamel hypoplasia, extra cusps, peg teeth and mulberry teeth etc.

### Establishment of age

The ages of the bodies were determined by matching the casts <sup>5,6,7 & 8</sup> of the nine phases (0-8) casts developed by Ischan with those of the sternal end of the fourth rib of the bodies and by matching the 12 casts of public symphysis developed by Suchey and Brooks with the public symphyses of the bodies, identifying the changes of the auricular surface of the pelvic bone and by observing the features of suture fusion in skull and fusion of epiphysis of vertebrae, sacrum, ischium, pubis, ilium, long bones and metatarsal.

### Establishment of sex

The sex was determined by examining the sexual characteristics <sup>7&9</sup> such as the nature of the sub public angle, presence of the ventral arc and nature of the greater sciatic notch of the innominate bones, nature of the supra orbital region, supra orbital margin, mastoid process and the nuchal region of the cranium and nature of the mental eminence and the gonial angle of the mandible.

### Establishment of stature

The stature was determined by measuring the length of femur in the osteometric board and by applying the formula established by Kodagoda <sup>10</sup>.

### Ascertainment of cause of death

The cause of death was ascertained by identifying pathological conditions and trauma occurring during life (ante mortem trauma), peri-mortem (occurring at the time around death) such as cut injuries and linear, depressed and comminuted fractures and beveled officers and fractures caused by bullets and pellets and post-mortem trauma caused after death by animals, weather, soil

conditions, excavations etc. in the bones of skeletons. These were recorded in line diagrams of the protocol forms. All the data mentioned above were recorded in preset protocol form of 16 pages.

### Photography and video recording

Overall view of the 15 disarticulated skeletons and relevant per-mortem injuries were photographed and video graphed by the technicians of the CID.

## Opinion and Conclusions

Relevant data are given in annexed tables 9 and 10.

### Summary and conclusions

There were 15 bodies disinterred including the two bodies exhumed in the pilot phase on June 16, 17 and 18, 1999. One was a female and the rest were males. Body numbers 3 to 15 are to be identified later, by comparing the available clothes and other artefacts in the skeletons after studying ante-mortem data base obtained by the statements taken by the CID from the complainants and by showing these clothes and available artefacts to the relevant complainants at a future date in Jaffna. Two bodies were identified provisionally in the pilot phase conducted on June 15th & 16th, with clothes as body number one (B1) to be that of Rasaiah Sathis Kumar and body number two (B2) to be that of Mahendran Uthaskaran. The graves have not been disturbed since burial.

Rasaiah Sathis Kumar (B1) was a male, age between 25-30 years with a height of 5 feet 8 inches. Rasaiah Sathiskumar had died of severe brain injury resulting from skull fracture resulting from assaulting the head with a club like weapon. This is a case of homicide.

Mahendran Uthaskaran (B2) was a male aged 20-25 years with a height of 5 feet 3 inches. Mahendran Uthaskaran had died from injury to brain and lungs resulting from fractures of skull and ribs resulting from assaulting with clubs on the face and chest. This is a case of homicide.

Body number three (B3) is a male, aged 25-40 years with a height of 5 feet 6 inches. The cause of death of B3 was unascertainable. Body number four (B4) is a male, aged 18-23 years with a height of 5 feet 7 inches. This person has died of a cut injury of neck resulting from cutting the neck with a sharp knife. This is a case of homicide.

Body number five (B5) was a male, aged 20-23 years with a height of 5 feet 7 inches. This person has died from injury to chest organs resulting from fractures of ribs and thoracic vertebrae resulting from assaulting on the trunk with clubs. This is a case of homicide.

Body number six (B6) was a male aged 20-23 years with height of 5 feet 5 inches. The cause of death in this body was unascertainable but possible assault with clubs on the chest cannot be excluded. This is also a case of possible homicide.

Body number seven (B7) was a female of 20-25 years with height of 5 feet 5 inches. This person has died from brain injury and chest injury resulting from assaulting with clubs on the head and chest. This is a case of homicide.

Body number eight (B8) was a male aged 25-35 years with a height of 5 feet 5 inches. This person has died from injury to lung and rib fractures resulting from assaulting with clubs on chest. This is a case of homicide.

Body number nine (B9) was a male of 14-17 years. The height and cause of death of the person could not be determined.

Body number ten (B10) was a male aged 20-30 years with a height of 5 feet 8 inches. This person has died from injuries to lungs and fractures of ribs, breast bone, shoulder blades resulting from assaulting with clubs on the chest and trunk. This is a case of homicide.

Body number eleven (B11) was a male of 20-25 years with a height of 5 feet 6 inches. This person has died from injury to lungs and fractures of ribs resulting from assaulting with clubs on the chest. This is a case of homicide.

Body number twelve (B12) was a male of 20-28 years of age with a height of 5 feet 7 inches. This person has died from injury to lungs and fracture of ribs resulting from assaulting with clubs on the chest. This is a case of homicide.

Body number thirteen (B13) was a male aged 20-25 years with a height of 5 feet 4 inches. This person has died from injury to lungs with fracture of ribs and breast bone resulting from assaulting with clubs on chest. This is a case of homicide.

Body number fourteen (B14) was male aged 25-35 years with a height of 5 feet 9 inches. This person has died from injury to brain and lungs with fractures of skull, breast bone, ribs and shoulder blades resulting from assaulting with clubs on head and chest. This is a case of homicide.

Body number 15 (B15) was a male aged 13-17 years. The height of this person could not be determined. This person has died from injury to lungs with fractures of ribs resulting from assaulting with clubs on chest. This is a case of homicide.

Only body numbers 4 had cut injuries. The rest of the bodies had injuries due to assault with clubs except B3 and B9. None of the



bodies had fire-arm injuries. B1 and B2 had clothes and other skeletons were nude or seminude.

There was agreement regarding the findings of the Chief Forensic Pathologist and the international observers except in body 9 (B9) where the foreign experts are of the view that there is evidence of tuberculosis of spine. The local Chief Forensic Pathologist agreed that the deceased to which the skeleton B9 belongs had tuberculosis.

### **Determination of individual specific identify**

Specific identification of bodies from mass graves could only be done by comparing nuclear or mitochondrial DNA profiles from relations, since the bodies have been buried about three years prior to exhumation. The most successful results would be by studying mitochondrial DNA profiles. Identification of clothes and artefacts may rarely be helpful in specific identity. Clothes were available only in the two bodies (B1 and B2) recovered in the pilot phase. The perpetrators have deliberately removed the clothes from the rest of the bodies except in B15, where there was a kharky shirt.

The mitochondrial DNA profiles of the relations should be matched with the mitochondrial DNA profiles obtained from the bone and teeth of the skeletons after provisional identification.

### **Identification of male victims by mitochondrial DNA profiles**

Venous blood and buccal scrapings will be obtained at later date in Jaffna from the maternal relations such as victims brothers, victim's sister and her children, victim's mother and her sisters and brothers and if living, victims' grand mother and her

brothers and sisters in male victims for mitochondrial DNA profiling.

The DNA profiles of all the medical officers and the foreign observers who took part in the excavation and laboratory examination should also be done if the identification is to be established accurately according to international standards.

### **Identification of female victims by mitochondrial DNA profiles**

Venous blood and buccal scrapings will be obtained at a later date in Jaffna from the maternal relations such as victim's children, victim's mother and her brothers and sisters, victim's grandmother.

**The DNA profiles of all the medical officers and the foreign observers who took part in the excavation and laboratory examination should also be done if the identification is to be established accurately according to international standards.**

**I recommend that the DNA profiling should be done in my presence in the Department of Forensic Medicine and Science in the University of Glasgow, Scotland, United Kingdom under the supervision of Dr. Will Goodwin. The skeletons should be handed over to the relatives once the specific identity is established.**

### **Acknowledgement**

I wish to thank Lt General Lohan Gunawardena, Security Forces Commander of Jaffna, Col Janaka Walgama, Major Sarath Dissanayake, Capt Kamal Herath, Capt Dhammika Thilakaratne, Superintendent of Police Mr. Nandana Munasinghe, Inspectors Mr. Linton Ratnayake and Mr. RM Rifard, Sub Inspectors Mr. Chanaka de Silva and Mr. MLP Premasiri of CID, Senior Superintendent

of Police Jaffna Mr. Nimal Mediwaka, Sub Inspector Mr. LB Molagoda of Kankasanturai Police Station for their logistic support, videographers, photographers and all the medical officers, archaeological officers who participated in Chemmani investigations, Senior State Counsel Mr. Yasantha Kodagoda who rendered valuable guidance during the excavations.

#### References

1. Daily News, December 16, 1999
2. Chandrasiri N. Experiences of a Forensic Pathologist in the examination of a mass grave in former Yugoslavia: Cey Med J, 1997: 98-99.
3. Haglund William D and Sorg Marcella H. Forensic Taphonomy. 1996, CRC press, P 39-47, 51-53, 66
4. Dawnie Wolfe Steadman. Forensic Anthropology Training Manual. Physicians for Human Rights Cyprus Project 1999 p80.
5. Iscan, MY, SR Loth, and RK Wright 1984 age estimation from the rib by phase analysis: White males. J GFor Sci, 29 (4): 1094-1104.
6. Brooks, S and JM Suchey 1990 Skeletal age determination based on the os pubis: a comparison of the Acsad-Nemeskeri and Suchey- Brooks methods. Human Evolution 5:227-238.
7. Rogers R and Saunders S, Accuracy of sex determination using morphological traits of the human pelvis, Journal of Forensic Sciences, JFSCA, Vol, 39, No. 4, July 1994, pp 1047-1056.
8. C Owen Lovejoy, Richard S Meindl, Thomas R Pryzbeck and Robert P Mensforth. Chronological metamorphosis of the auricular surface of the ilium: A new method for the determination of adult skeletal age at death. American Journal of Physical Anthropology 68: 15-28 (1985).
9. Forensic Anthropology training manual 1996. National Museum of Health and Medicine. N. Kodagoda and Seetha Jayasinghe, A preliminary test of Pearson's formula for estimation of height of Sri Lankans, Forensic Sci Int 36 (1988), 241-246.



*(This exclusive report was prepared by Professor Niriellage Chandrasiri, the late Senior Professor of Forensic Medicine University of Ruhuna Sri Lanka and a Senior Medico-Legal Consultant. He was the first forensic pathologist from Sri Lanka who had the privilege to be involved with international forensic investigations of mass graves in former Yugoslavia in 1996. He passed away in 2006 without being able to witness the positive identification of Chemmani deceased. He finally oversaw the bony samples of Chemmani skeletal remains being sent first to India and then to United Kingdom for DNA Identification. However the local case drops halfway during the last decade and its fate is unknown since then. )*

**COVER STORY: MASS GRAVES IN SRI LANKA**

# Facts & Figures: Chemmani Mass Graves

**Table I – Number of graves shown by informant prisoners**

Total number of graves – 26

Name of prisoner (P)	Number of graves shown	Numbers of graves identified (Please refer to annexure I)
R.D. Somaratna Rajapakse (P1)	13	G2, G3, G4, G5, G6, G20, G21, G21A, G22, G22A, G23, G24 & G25
D.M. Jayasinghe (P2)	04	G7, G8, G9, G10
A.S. Priyashantha Perera (P3)	05	G11, G12, G13, G14, G15
Pradeep Priyadharsana (P4)	02	G16 & G17
D.M. Jayatileke (P5)	02	G18 & G19

**Table II – Location of grave sites as shown by prisoners**

Designated letter given to grave site	Location of area of grave
A	Area behind the small kovil opposite Chemmani check point. This is a large of bare land on left side of Kandy-Jaffna, A9 trunk road when approaching Jaffna
B	Area immediately behind Chemmani check point
C	The saltern in Chemmani Area
D	The area around Kottukinaru Pulleyar kovil in Ariyale-Jaffna
E	The unused well next to the dispensary at 815 Jaffna-Kandy A9 trunk road
F	Behind Jeya Building
G	Behind Sivaneri Institute No. 839, Navalar Road, Jaffna
H	Behind Charli Camp, Colombuthuari

**Table III – Graves shown by informants other than prisoners**

Grave site (see Table II)	Designated grave No.	Place of grave	Number of bodies received
B	N3	A disused and dilapidated cement well behind Chemmani check point	Nil
C	N2	In the bare area of open land in front of saltern	Nil

**Table IV – Artefacts**

Grave No.	Description of artefact	Related Body number
G2	Nil	B8, B9, B11
G3	Nil	-
G4	Nil	B5
G6	Nil	-
G7	Nil	-
G8	Nil	-
G9	Nil	-
G10	Nil	-
G11	A thread (“poona nula”) and elastic bands of underwear	B6
	Blue coloured skirt, IUCD, gold nose stud, toe ring, black thick cord	B7
G12	Nil	-
G13	Nil	B12
G14	Kharky shirt and remnants	B15
G15	Nil	-
G16	Nil	B5
G17	Nil	B10
G18	Nil	-
G19	Nil	B13, B14
G20	Nil	-
G21	Nil	-
G21A	Nil	-
G22	Nil	-
G22A	Nil	-
G23	Nil	-
G24	Nil	-
G25	Nil	-
N1	Nil	B3, B4



**Table V – Comparison of information given by prisoners and the actual number of bodies recovered (please also refer to Table VII)**

Name of Prisoner (See table I)	Number of bodies said to be present	Number of bodies recovered after excavation	% accuracy
P1 R.D. Somaratna Rajapakse	59-67	4	5.9%-6.7%
P2 D.M. Jayasinghe	11	0	Zero
P3 A.S. Priyashantha Perera	16-17	4	23% - 25%
P4 Pradeep Priyadarshana	3	2	66.6%
P5 D.M. Jayathilake	7	2	28.5%

**Table VI – Tabulated detail information obtained from the five prisoners from August 30 – September 1, 1999 in Connection with graves****M = Male      F = Female**

Grave Number, Location & Important	Number of Bodies	Gender	Identification	Nature of the grave	Bodies brought by	Bodies buried by	Other relevant information
P1, G2, Behind Chemmani check point  S. Rajapakse	10-15	1F rest M	Couple from 48/1, Nelumkulam Rd & others unknown	Former LTTE bunker	Lalith Hewa, Thudugala & Wijesiriwardena	Rajapakse, ASP Perera, Jayasinghe Pradeep Priyadarshana and others	Attack that killed the victims occurred near grave 1
P1 G3 On the saltern (two suspected sites),  S. Rajapakse	20	All M	Not known	Former LTTE Bunker	Thudugala Wijesiriwardena Upul & Perera	Rajapakse Perera & Upul	2 sleepers may be found
P1 G4, Near the admin tent  S Rajapakse	3-4	All M	Not known	Former LTTE Bunker	Thudugala Udaya Kumara & Wijesiriwardena	Rajapakse, Perera	Killed at head- quarters
P1 G5, Behind the small kovil  S. Rajapakse	3-4	All M	Not known	Dug for this purpose by private Perera	Thudugala	Rajapakse, Perera	(bodies brought in a tractor)
P1 G6, In front of the admin tent  S. Rajapakse	2	Both M	Kaithadi area Poosari's son. Other person unknown	Dug for this purpose	Thudugala Upatissa & Perera	Perera & Others	Challey cycle also buried in this grave

P2 G7, Behind the Chemmani check point,  D.M. Jayasinghe	1	M	Not known	Dug for this purpose	Udayakumara, Wijesiriwardena, Lalith Hewa	Rajapakse, Jayasinghe Alwis & Widyananda	Bodies were brought from the Head quarters
P2, G8, Behind Chemmani check point  D.M. Jayasinghe	2	One M One F	Not known	Former LTTE trench	Lalithhewa, Thudugala & Udayakumara	Widyananda, Alwis, Rajapakse, Jayasinghe	
P2, G9 Behind Chemmani check point  D.M. Jayasinghe	1	All M	Not known	Dug for this purpose	Wijesiriwardena & Thudugala		
P2 G 10, Behind the small Kovil,  D.M. Jayasinghe	8	All M	Not known	Dug for this purpose	Thudugala Lalithhewa, Wijesiriwardena & Udaya Kumara	Rajapakse, Wijayananda, Alwis, Nishantha, Jayasinghe	Inquire from Ilangarani & Kabalani
P3, G11, Behind Chemmani check point  A.S. Priyashantha Perera	2-3	All M	Not known	Further dug an existing trench for this purpose	Thudugala Lalithhewa, Wijesiriwardena & Udaya Kumara	Rajapakse, Wijayananda, Alwis, Nishantha Jayasinghe	Inquire from Ilangarani & Kabalani
P3, G12 Behind Chemmani check point,  A.S. Priyashantha Perera	2	One M One F	Not known	Dug for this purpose	Lalithhewa, Thudugala Nazar	Rajapakse ASP Perera	At the scene male victim hit on the head with the body of a mamoty blade by Nazar. Female assaulted by
P3 G13, In the compound of the main ariyalai Kovil (in front)  A.S. Priyashantha Perera	1	M	Not known	Dug for this purpose	Thudugala & others unknown	AS Priyashantha Perera	Lalithhewa Thudugala killed the victim near the grave. The victim had been detained in a LTTE underground bunker
P3 G14, Inside the compound of the Ariyalai main kovil (in the rear)  A.S. Priyashantha Perera	1	M	Not known	Dug for this purpose	Thudugala	Perera & Alwis	Thudugala killed the victim from a LTTE underground bunker and killed at the grave

P3, G15, A well near the dispensary (No. 815, Kandy Road, Ariyalai)  Priyashantha Perera	10	Not known	Not known	A well			Prisoner had been instructed by Thudugala to fill the well. However, a metal sheet had been put into the well. Hence, he placed soil on top of it.
P4 G16, Near the admin tent Pradeep Priyadarshana	2	Unknown	Unknown	Dug for this purpose	Thudugala	Pradeep Priyadarshana, Thudugala & Jayasinghe	
P4, G 17 Behind the Chemmani check point Pradeep Priyadarshana	1	M	Not known	Dug for this purpose	Thudugala	Pradeep Priyadarshana & Others	
P 5, G 18, Close to the bunker line and next to the main kovil  Jayathilake	1	M	Not known	Further dug for this purpose	Capt. Perera		Hands had been tide, behind the body
P5, G19 Close to the bunker line and next to the main kovil  Jayathilake	6	M	Not known	There was a pit	Capt. Perera of the Alfa Camp, Lalithhewa		There may be more bodies
P1, G20 Behind Jaya building  S. Rajapakse	5 - (could be more)	M	Three persons who were ( at the time of the arrest) employees of the CWE (initially 5 emp. Had been arrested 2 had been released)	Dug for this purpose	Lalithhewa Udayakumara & Bogahapitiya	Upatissa, Keethiratne	
P1 G 21 (P1 G21A), Behind Jaya building or inside the compound of the timber mill,  S. Rajapakse	2-3	M	Several persons from Achchuveli	Dug for this purpose	Corp. Upatissa, Keerthiratne	Keerthiratne & Upatissa	The victims had been detained at the Jeya building prior ro being killed. Burial had been on the instruction of Lalithhewa

P1 G22 (P1 G22A), Behind Siveneri Institute, 432, Navalar Rd, Ariyalai (Former LTTE Camp)  S. Rajapakse	8	M	(1) Rana (Living on a road situated in front of the dispensary in Ariyalai) (2) Poosari (Living near Rana's house) (3) A person living in a house on Colombuthurai Rd; Others unknown	Dug for this purpose	Lalithhewa & Persons of the Intelligence Unit	Corporal Keerthiratne & others	The victims had been apprehended by personnel manning a check point in front the camp, had been detained and later killed (Rana had been dressed in longs)
P1 G23, Rear compound of the C Camp of the 7th CLI, in Colombuthurai  S Rajapakse	Not known	Not known	Not known	Dug for this purpose		Jayawardena Ariyasena	The victims had been apprehended from Ariyalai and detained in the camp, prior to being killed
P1 G 24 Rear compound of the C camp of the 7th CLI in Colombuthurai (near the toilet), S Rajapakse	4 or more	3 M	Not known (1) Selvaratnam from Ariyalai (2) Pathivam (Labourer) from Ariyalai (3) Sudakaran (Labourer) from Ariyalai	Dug for this purpose	Jayawardena Ariyasena	Ariyasena and others not known	Complains that, the surface of the pit has changed. Has shown the three houses of the victims to the CID
P1 G25, East Ariyalai forward of the bunker line, in front of a dilapidated house, S. Rajapakse	2	M	Logeswaran from Ariyalai other not known		Wijesiriwardena	Pallepola, Bogahapitiya	Victims detained in the house situated in the same compound. House of the victims shown to the CID



**Table VII - Details showing dates of excavation of graves**

Grave site (Please refer Table II)	Location	Constituent graves	Date of commencement of excavation	Date of termination of excavation	No of bodies found in each grave	Identification number of body	Total number of bodies
A	Area behind the small kovil opposite the Chemmani Check point	P1 G4 (P4 G16) P1 G5 (P2 G10) P1 G6 (suspected to have the challey) P5 G18 (directly behind the kovil) N1	07.09.99 06.09.99 08.09.99 06.09.99 07.09.99	09.09.99 09.09.99 09.09.99 09.09.99 09.09.99	01 00 00 00 02	B5 - - - B3 & B4	03
B	Area behind the Chemmani check point	P1 G2 ( P2 G8) (P3 G11) P2 G7 (P4 G17) P2 G9 P3 G12 N2	20.09.99	20.09.99	-	B8, B9 & B10  B6 & B7 B11	06
C	The saltern at Chemmani	P1 G3 P1 G3 A N3	11.09.99 22.09.99	13.09.99 22.09.99	00 00	- -	00
D	Area around the Kottukinaru Pulleyar kovil Ariyale	P1 G25  P3 G14 P3 G13 P5 G19	17.09.99  18.09.99 16.09.99 14.09.99	17.09.99  18.09.99 17.09.99 18.09.99	00 (skeleton of a bull found) 01 01 02	-  B15 B12 B13 & B14	04
E	The well next to the dispensary No. 815 along Jaffna Kandy road	P3 G15	20.09.99	21.09.99	00	-	00
F	Behind the Jeya building	P1 G 20 P1 G21 P1 G21A	20.09.99	21.09.99	00	-	00
G	Behind the Sivanarle Institute No. 839, Navalar Road	P1 G22  P1 G22A	121.09.99	21.09.99	00	-	00
H	Behind the Chardi camp Colombuthurai	P1 G 23 P1 G24	21.09.99	22.09.99	00	-	00

**Abbreviations:** The letter “P” refer to the prisoner  
 The numerical refer to the identity of the prisoner  
 The letter “G” refers to the grave  
 The numerical refers to the grave shown by the prisoner  
 The letter “B” refers to the body  
 The letter “N” refers to the new graves identifies by the expert team other than the prisoners

N1 - a new grave identified while excavating site A

N2 - a new area shown by an informant

N3 - a new area shown by an informant who is an employee of the saltern

**Table VIII – Relationship of graves to bodies discovered and the artefacts found in the bodies**

No.	Site	Grave No.	Date of recovery	Number of bodies alleged by the Prisoners	Number of bodies actually found & position	Body number & crown heel length	Presence /Absence of clothes	Artifacts
1	Pilot, At the junction between Nallur road and the road to Saltern	G1	16.06.99	2	2	B1 B2	Present Present	None None
2	A	N 1 (near)	07.09.99	Not shown by prisoners	2, lying side by side in opposite direction	B3 B4	No clothing No clothing	None None
3	A	P1 G4 /P4 G16	08.09.99	3-4/2	1, lying face upwards	B5 180 cm	No clothing	None
4	B	P3 G11 (inside)	09.09.99	2-3	2 (B7) lying in the lithotomy position	B6 Skull shattered while bachoeing B7	(B6) Poona, Nula and Under wear elastic bands (b7) blue coloured skirt	(B7) Intrauterine Contraceptive Coil, Gold Nose Stud, Metal toering, Black colour thick cord around left wrist
5	B	P1 G2	10.09.99	10-15	1, lying on a side	B8	No clothing	None
6	B	P1 G2	11.09.99	10-15	1, lying face downwards	B9	No clothing	None

7	B	P4 G17	11.09.99		1, lying on a side	B10 176 cm	No clothing	None
8	B	P1 G2	13.09.99		1, lying on a side with legs one over the other	B11 158 cm	No clothing	None
9	D	P3 G13	16.09.99	1	1, lying on a side	B12	No clothing	None
10	D	P5 G19	18.09.99	6	2, both lying on a side	B13 B14	No Clothing No Clothing	(B13) Rope around left humerus
11	D	P3 G14	18.09.99		Lying on a side	B15	Kharky shirt and remnant of a nylon underwear	Ligature around right forearm bone

**Table IX – Relationship of skeletal remains to peri-mortem injuries and clothes**

Body no. and estimated age and sex	Injuries and photographs taken	Whether clothes present or not
B1 25-30 years Male	1. Communicated fracture of left parietal area 2. Maxillary and mandibular dentition 3. Overall view	Present
B2 20-25 years Male	1. Fracture left zygomatic arch 2. Fracture left side ribs 6,7,8 3. Maxillary and mandibular dentition 4. Overall view	Present
B3 25-40 years Male	1. No peri-mortem injuries 2. Maxillary and mandibular dentition 3. Overall view	Absent
B4 18-23 years Male	1. Peri-mortem fracture sternum 2. Peri-mortem cut 3rd cervical vertebrae 3. Maxillary and mandibular dentition 4. Overall view	Absent
B5 20-30 years Male	1. Peri-mortem fracture sternum body 2. Peri-mortem fracture right side ribs 1,2,3,6,7,8 3. Peri-mortem fracture left side ribs 5,6,7,8,9,10 4. Maxillary and mandibular dentition 5. Overall view	Absent


B6 25-30 years Male	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture right ulna</li> <li>2. Peri-mortem fracture left side ribs 10</li> <li>3. Peri-mortem fracture right side ribs 2</li> <li>4. Maxillary and mandibular dentition</li> <li>5. Overall view</li> </ol>	Present – ‘Poona’ thread and elastic bands of underwear
B7 20-35 years Female	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture skull</li> <li>2. Peri-mortem fracture right side ribs 2,3,4,7,8,9,10</li> <li>3. Maxillary and mandibular dentition</li> <li>4. Overall view</li> </ol>	Absent – IUCD, Gold nose stud, toe ring
B8 25-35 years Male	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture left side rib 8</li> <li>2. Peri-mortem fracture right side ribs 2,3,4,10</li> <li>3. Peri-mortem fracture sternum</li> <li>4. Maxillary and mandibular dentition</li> <li>5. Overall view</li> </ol>	Absent
B9 14-17 years Male	<ol style="list-style-type: none"> <li>1. No fractures, facial asymmetry, septum deviated to left and a cervical rib</li> <li>2. Maxillary and mandibular dentition</li> <li>3. Overall view</li> </ol>	Absent
B10 20-30 years Male	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture right scapula</li> <li>2. Peri-mortem fracture left 4th metacarpal</li> <li>3. Peri-mortem fracture left side ribs 2,10,11</li> <li>4. Peri-mortem fracture right side ribs 5,6,7,8,9,10</li> <li>5. Peri-mortem fracture sternum</li> <li>6. Peri-mortem fracture thoracic vertebrae 5,6,7, 8,9,12</li> <li>7. Peri-mortem fracture lumbar vertebrae 1</li> <li>8. Maxillary and mandibular dentition</li> <li>9. Overall view</li> </ol>	Absent
B11 20-25 years Male	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture right side ribs 9,10,11</li> <li>2. Maxillary and mandibular dentition</li> <li>3. Overall view</li> </ol>	Absent
B12 20-28 years Male	<ol style="list-style-type: none"> <li>1. Peri-mortem fracture right side ribs ribs 4,5,6,8,9</li> <li>2. Cut left side rib 3</li> <li>3. Peri-mortem fracture left side ribs 5,6</li> <li>4. Peri-mortem fracture sternum</li> <li>5. Peri-mortem fracture 1st left metacarpal</li> <li>6. Peri-mortem fracture thoracic vertebrae 11</li> <li>7. Maxillary and mandibular dentition</li> <li>8. Overall view</li> </ol>	Absent

**Table X Chemmani – Bodies**

Body Number	Recovered from	Date of exhumation (grave)	Identity	Gender, Age and Height	Manner and cause of death
B1	G1	June 15 & 16, 1999	Provisionally established as Rassaiya Sathis Kumar	Male 25-30 years 5' 8"	1a. Brain injury 1b. Skull fracture 1c. Blunt weapon assault - homicide
B2	G1	June 15 & 16, 1999	Provisionally established Mahendran Uthaskaran	Male 20-25 years 5' 3"	1a. Brain injury and lung injury 1b. Skull fracture and rib fracture 1c. Blunt force trauma to face and chest - homicide
B3	N1	Sept 7-9, 1999	To be identified	Male 25-40 years 5' 6"	Unascertainable
B4	N1	Sept 7-9, 1999	To be identified	Male 18-23 years 5' 7"	1a. Cut injury of cervical vertebrae 1b. Sharp force trauma to neck-homicide
B5	G4	Sept 7-9, 1999	To be identified	Male 2-23 years 5' 7"	1a. Fractures of ribs and thoracic vertebrae 1b. Blunt force trauma to chest - homicide
B6	G11	Sept 20, 1999	To be identified	Male 20-23 years 5' 5"	Unascertainable. Possible blunt force trauma to chest
B7	G11	Sept 20, 1999	To be identified	Female 20-25 years 5' 2"	1a. Cranio cerebral injury and chest injury 1b. Blunt force trauma to head and chest-homicide
B8	G2	Sept 20, 1999	To be identified	Male 25-35 years 5' 5"	1a. fractures of ribs and lung injury 1b. Blunt force trauma to chest - homicide
B9	G2	Sept 20, 1999	To be identified	Male 14-17 years undetermined	Unascertainable
B10	G17	Sept 20, 1999	To be identified	Male 20-30 years 5' 8"	1a. Fractures of thoracic vertebrae, ribs, sternum and scapula



					1b. Blunt force trauma to chest-homicide
B11	G2	Sept 20, 1999	To be identified	Male 20-25 years 6' 6"	1a. Fracture of ribs 1b. Blunt force trauma to chest- homicide
B12	G13	Sept 16-17,1999	To be identified	Male 20-28 years 5' 7"	1a. Fracture ribs and vertebrae 1b. Blunt force trauma to chest-homicide
B13	G19	Sep 14- 18, 1999	To be identified	Male 20-25 years 5' 4"	1a. Fractures of ribs and sternum 1b.Blunt force trauma to chest-homicide
B14	G19	Sept 14-18, 1999	To be identified	Male 25-35 years 5' 9"	1a. Fracture skull, sternum ribs and scapula 1b. Blunt force trauma to head and chest- homicide
B15	G14	Sept 18,1999	To be identified	Male 13-17 years Undetermined	1a. Fracture of ribs 1b. blunt force trauma to chest- homicide



**“... country like India, having a planned defence spending outlay of an estimated US 44 Billion for 2012, has no justification to let 44% of its population suffering from malnutrition ...”**

**ACT NOW**

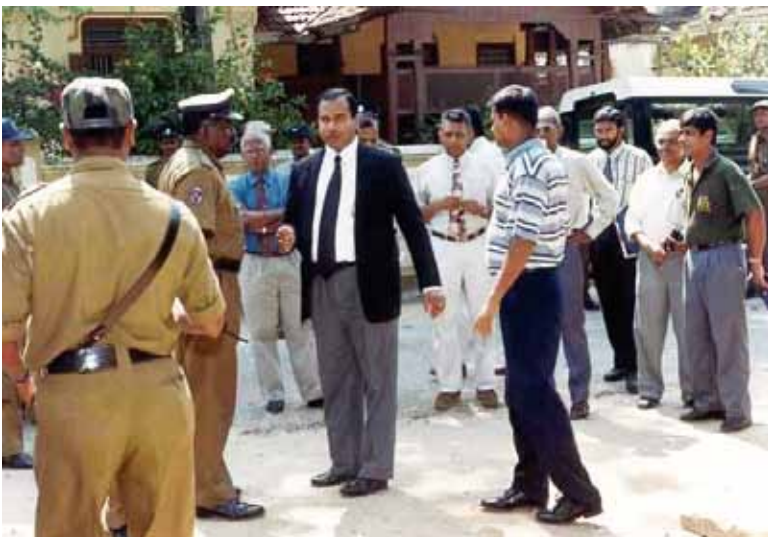
**[www.humanrights.asia](http://www.humanrights.asia)**



*Boundaries of Chemmani exhumation site*

THIS EXCLUSIVE PHOTO ESSAY is based on the Mass Graves in Chemmani. “What we reliably understand was the context, in which Krishanthi’s murder took place on 7th September, 1996. Pungankulam army camp was a main camp east of Jaffna City that controlled Chemmani point where the murder took place. Persons detained over a large area were first brought to Pungankulam camp, where a decision was taken what to do with them. Many were then sent to the Intelligence Camp in Ariyalai East, which is quite near Chemmani, the whole comprising a largely uninhabited area. Here the prisoners were tortured, and we are yet to hear of survivors. On regular occasions the men at Chemmani point would be alerted during the night. The naked corpses of detainees tortured and killed at the Intelligence Camp were then taken to Chemmani in a vehicle, for the men at the point to assist in burial,” pointed in its special report by the UTHR(J).

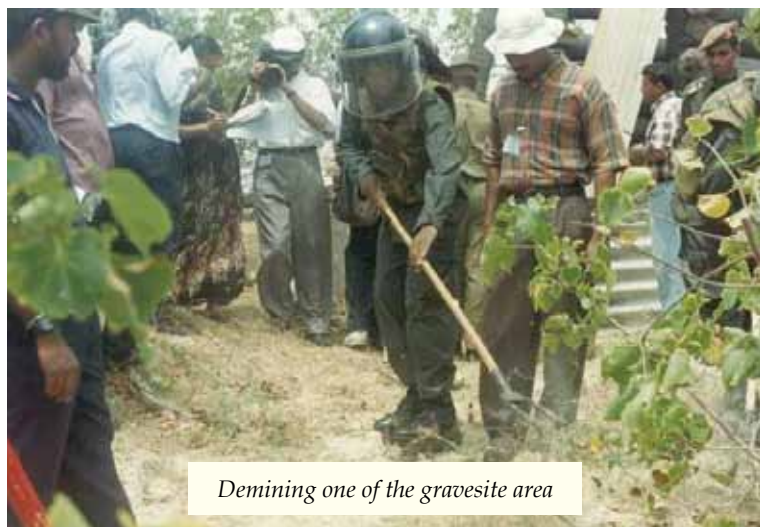
*AG’s Dept. staff represented in Jaffna and Surveyors mapping the area*



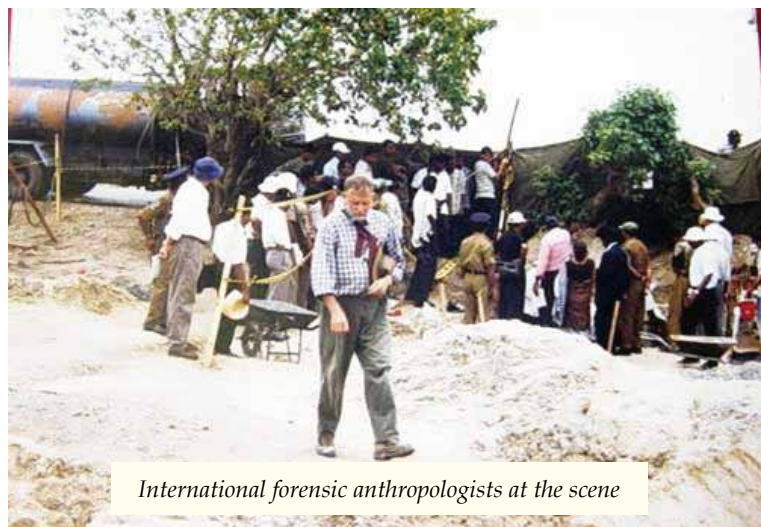




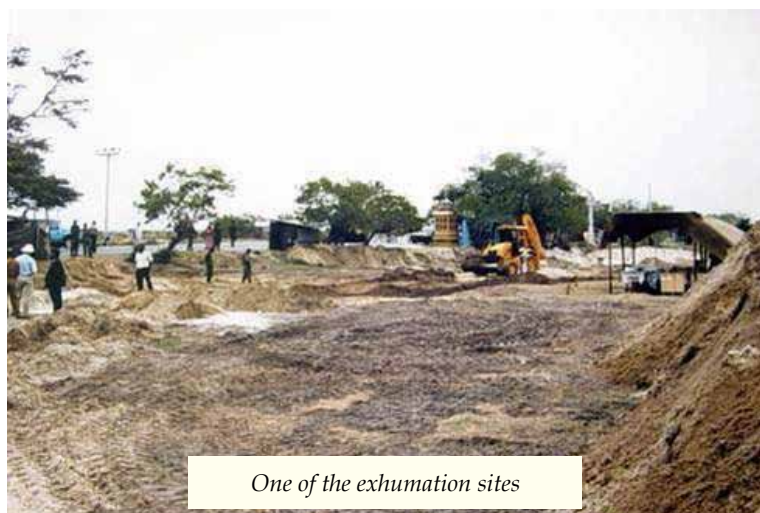
*Chief informant: Somaratna Rajapaksha*



*Demining one of the gravesite area*



*International forensic anthropologists at the scene*



*One of the exhumation sites*



*Recovery of soil patch indicative of human remains*



*Trenching one of the gravesites*



*Exhumation in progress*



*Exhumation in progress*





*Skeletal remains unearthed*



*Exhumation in progress*



*Skeletal remains unearthed*





**File Photograph of Krishanthi Kumaraswamy**

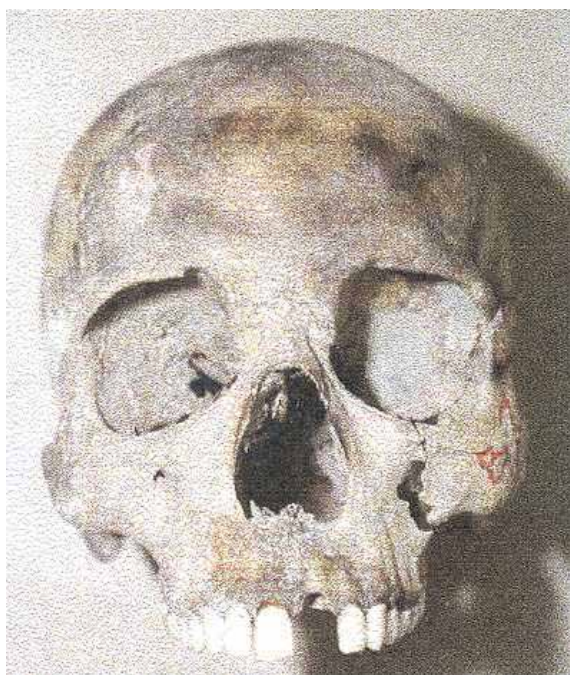
The brutal gang rape and gruesome murder of Krishanthi Kumaraswamy and her mother, brother and a neighbour on September 7, 1996 by the Sri Lankan army soldiers and policemen shocked the conscience of the civilized world. Although crimes like sexual assaults and murder committed against unarmed defenseless civilians have become common place in throughout the country, the naked barbarism displayed by the rapists and killers in this instance surpassed all previous crime records.



*Skeletal remains unearthed*



*Sketching the distribution of skeletal remains in a grave*



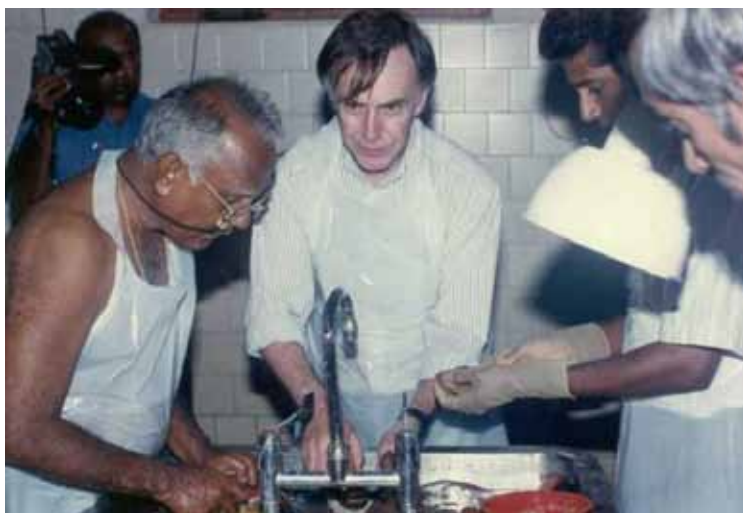
*Injuries in Skulls*







*Sieving the unearthed soil for hidden skeletal remains*



*Prof. Niriella and other experts at the morgue*



*Chemmani investigation team at the conclusion of the exhumation process*