

Some hospital staff used their own personal digital cameras. However there were often no computers to download the images or printers to print the photographs. Instead, the majority of photographs were taken using print film. There were reports that in some areas the police did not have sufficient funds to develop all the films or that commercial photographers would not hand over the films without receiving payment for their work.

Nevertheless, the commendable effort to photograph all the victims produced a vast number of images. However devising a process whereby relatives could view the images to identify the victims created another challenge. Typically the photographs were posted on boards and displayed in public areas at hospitals or police stations (Image 10).

Image 10. Photographs of unidentified victims displayed at the police station, Hambanthota, Sri Lanka 4th March 2005



Photograph: Oliver Morgan

Final disposal of remains

Very early on the Government of Sri Lanka stated that cremation of victims was not permitted without proper identification. Because most of the victims were taken to local hospitals and left outside in the heat and sun, the cadavers

decomposed rapidly. After three days the smell was so bad that a few hospitals closed or the staff threatened not to return to work. For practical reasons the police decided to bury the bodies in mass graves. These were mostly located within existing cemetery grounds, although there were a few reports of mass graves being inappropriately sited within or near communities.

In the some districts Muslim communities recovered the bodies of fellow Muslims and buried them on the first day according to Muslim practice, mostly without proper identification. In more remote areas there were also reports of victims being buried in small communal graves within or near their villages.

Burial in mass graves was done by the police and military. Bodies were placed in the graves haphazardly and usually in several layers. A number of exhumations were subsequently conducted by foreign forensic team following reports that foreigners had also been buried in the mass graves. The haphazard nature of burial made such exhumations extremely difficult.

2.5 Health risks from dead bodies

No health problems due to dead bodies were reported by the Ministry of Health or local hospitals. The Ministry of Health was aware of information about the infectious disease risks of dead bodies and was able to provide assurances via the media that there was no risk of epidemics. This might have avoided a general 'panic', even after the statement by WHO that infectious diseases could cause the same number of fatalities as the tsunami itself. Furthermore, no occupational exposures were recorded from the police or community in the areas covered by this fieldwork.

4.2.6 Legal issues

Sri Lanka has a similar system of death registration as the United Kingdom. Death certificates cannot be issued without a cause of death. Where death has not occurred due to 'natural causes', a forensic examination is required. The large number of bodies made it impossible for forensic examination of all victims. A special court order was issued to allow burial of bodies without prior issue of a death certificate. It was subsequently decreed that death certificates would be issued for all victims of the tsunami, even when a body had not been identified. These death certificates state that drowning was the cause of death, even though many victims died from trauma. Although some coroners have been reluctant to do this, many death certificates have been issued. However, there was an unconfirmed story of a man who, while injured in hospital, was issued a death certificate after his family reported him as missing.

4.3 Thailand

4.3.1 *Scope of the case study*

The case study for Thailand was limited. The field work coincided with an official request from the Thai Government to the WHO Thailand office to conduct a formal evaluation of the forensic investigation after the tsunami. Consequently the WHO Thailand office was unable to continue its support of our study. Due to the highly politicised nature of the forensic identification of victims, we considered it impractical to continue without support from the WHO office. The following case study is therefore based on media reports, information available on the Internet, telephone interviews with two forensic specialists who had been members of the first international response teams and informal discussions with WHO staff members and the Asian Disaster Preparedness Centre.

4.3.2 *Context*

Within hours of the tsunami, the Thai authorities had dispatched assessment teams to the affected areas as part of their disaster preparedness plan. On the 27th December 2004 the Thai government made an official request to the Australian government for forensic support. This was partly because of an existing close relationship between the Thai and Australian forensic police teams. Unlike many of the other tsunami affected countries, a large proportion of the victims were Western holiday makers. This led to the involvement of several European governments and their embassies, particularly in the area of victim identification.

4.3.3 The impact of the tsunami in Thailand

The provinces most affected were in the south of the country. Almost 2,000 foreign and 2,000 Thai bodies have been recovered (Table 4). The nationality of one and a half thousand bodies is still unknown. In addition, almost 3,000 people have been reported missing.

Table 4. Number of dead and missing victims in Thailand (22/02/2005).

Province	Reported Missing	DEAD			Total	
		Nationality	All	Thai		Foreign
Phang Nga	1,758		1,242	1,633	1,349	4,224
Krabi	585		357	203	161	721
Phuket	638		151	111	17	279
Ranong	9		156	4	0	160
Trang	1		3	2	0	5
Satun	0		6	0	0	6
TOTAL	2,991		1,915	1,953	1,527	5,395

Source. Thailand Tsunami Situation Report 34

4.3.4 Management of the dead

Recovery of the bodies

The initial body recovery was done by voluntary organisations such as the Ruankatanyu Foundation, local volunteers including western holiday makers, the police and the military. Body recovery continued for a number of days after the tsunami. In the first few days, the bodies were wrapped in sheets because body bags were not available.

Transfer and storage of cadavers

The bodies were taken to Buddhist temples at Khao Lak, Yan Yao, Bang Muang and Phuket. The choice of temples was for religious rather than logistical reasons, although this arrangement proved advantageous because it meant that identification activities could easily be focused at these areas. Initially, bodies of Westerners and Thais were separated and stored in the open. Dry ice was

packed around the bodies to try and slow decomposition, but this was not very effective as it was not 'boxed in' or contained, and just ebbed away. By the 29th December refrigerated containers became available in which to store the bodies of Westerners. A large number of these containers were needed. For example, in Kao Lhak 50 containers were needed to store about 300 bodies. In the Wat Bang Muang temple, about 800 bodies of Thais were buried in a long trench, each body with a marker at ground level. However, due to concerns that the mass grave may include Westerners, all the bodies were exhumed for examination.

Identification of the victims

Thailand experienced the largest international forensic response in history. Foreign embassies and consulates were involved in the identification of survivors, as well as collecting information about the victims. Many countries sent their own forensic teams who were supported by INTERPOL and Kenyons International (a private company specialising in body recovery and repatriation) In total about 500 international forensic specialists were involved in Thailand. A disaster victim identification (DVI) centre was established in Phuket and a committee of international forensic specialists were formed to coordinate their activities. Temporary mortuaries were established and examination facilities were set up in the monasteries within about a week after the disaster. A 'production line' process was developed to process the bodies. Each bag was opened and the body parts checked to ensure that they were the same as indicated on the bag. Fingerprints and dental x-rays were taken. The bags were then re-sealed and placed in refrigerated trucks. Many relatives also travelled to Phuket to try and visually identify victims from photographs and message boards with photographs of missing tourists.

Final disposal of remains

In the first few days after the disasters some of the Thai victims were cremated by their families according to local custom. Foreign victims who have been identified have been repatriated. However, over 3,000 bodies remained in refrigerated trucks while the identification process continues.

4.3.5 Health risks from dead bodies

No disease transmission was reported among the public, volunteers recovering bodies or forensic specialists. Initially there was not much concern about disease risks. However, one of the volunteers recovering bodies died from unrelated causes (possibly a heart attack). This sparked fears that the bodies may spread disease. In response, the Thai authorities rapidly implemented decontamination areas for forensic specialists working with the bodies. This included spraying forensic specialists with a chemical disinfectant. This was stopped after a few days. Some of the people who had been sprayed later developed respiratory infections, possibly associated the disinfectant.

4.3.6 Legal issues

The management of the dead in Thailand resulted in many difficult legal issues. This was partly because of the involvement of Western governments who wanted to repatriate the bodies of their nationals. This was further aggravated by an ongoing tension between the Justice Ministry and the police and an argument over legal jurisdiction over the identification of the victims.