Chapter 5

Conclusion and Discussion

The purpose of this study was to investigate and model the geographical distribution of the risk rate of there being a terrorist event at any one location in the region during the period from the beginning of January 2004 to the end of December 2005, with a view to identifying locations associated with an unusually high risk of a terrorist event. In this chapter we summaries the findings, and discuss their implications. We also list some of the limitations of our study.

5.1 Conclusion

The region examined comprised all districts in the provinces of Narathiwat, Pattani and Yala, together with the four westernmost districts of Songkla Province. There are 36 districts and 290 subdistricts in this region.

The methods for preliminary analysis involved first computing the risk rate of events for each subdistrict over the period and the corresponding population resident in the subdistrict (in 1000s, according to the 2000 Population Census of Thailand). The risk of a terrorist event depends on various factors including the district or subdistrict. We found that some subdistricts had population greater than 20,000 residents. Since the research question involves studying how the risk of a terrorist event depends on various factors including the time of day, the day of the week, the month of the year and the district or subdistrict in the region, we focused on the rate of occurrence of such events with respect to an appropriate denominator reflecting the corresponding population at risk.

The reporting of geographic distribution of the risk rates and used maps to identify areas of risk rates in districts in the region examined. The methods for mapping such data were provided by Geographical Information Systems (GIS) grid maps. Figure 3.2 shows grid maps of the regional distributions of event rates for 2004 and 2005, with major roads and towns shown. It is of interest to see if The geographic distribution of the risk rates. One of the two highest rates was found to be in the northeastern wing of Yala Province, bordering both Pattani Province to the north and Narathiwat Province to the south, and the other was in central Narathiwat Province. High risk rates (with event rates above 1.75 per 1000 per year) were evident in the expanded areas of large clusters of subdistricts around these two focus points Yala centered at northeaster and central Narathiwat.

Figure 3.3 shows the grid maps for the average event rate over the two years 2004-2005, and for the increase in this rate from 2004 to 2005. From this map it can be seen that the terrorist event rate overall for the region examined. The biggest increase is seen to have occurred in subdistrict along the Pattani River in central Yala and southern Pattani.In addition to subdistrict, the risk (base on past incidents) of terrorist act was found to be associated with time of the day, day of the week and month of the year. The daily incidence of events varied substantially over the two-year period, with a maximum of 126 events in one day recorded on 26 October 2005. Relatively high incidences of events were recorded as well on 9 June 2005, 22 April 2004 and 31 August 2005.

The highest frequency periods were between 8 and 9 pm. In these southernmost provinces terrorists were active on daily basis but the most likely days were Wednesdays and Thursdays.

5.2 Discussion

There was an exceptionally high peak in March-April 2004 and a less pronounced peak in May-June 2005. The terrorist event occurrences were shown to increase on "important " days of the year for terrorist (dates or periods of very high terrorist activity in previous years). The model predicted this. The aim of some among the population in the three southernmost provinces seems to be to repeat the occurrence of terrorist event activity of the past: to 'celebrate' past event by having a high rate of activity on those dates in following years.

Grid maps showing the distribution of event rates over the two years 2004-5 reveal the patterns of increase in this rate from 2004 to 2005. Knowing event incidence by month for each year and also events by hour of day, enables warnings to relevant communities at particularly high risk of terrorist activity on those particular days or over particularly periods. The model enables predictions that could make the difference between life and death for some members of the community. The assignment of roles and duties of police and army officers in the three southernmost provinces and the four districts in Songkla are intended to promote safety of life but there are some problems. The forces have weaknesses because of low numbers and stress and reducing efficiency over their period on duty. If their alertness and efficiency are highest on the first day of each period of duty then perhaps the officers who are 'fresh' (in their first few days of the period) should be the ones who work in high risk areas. The model outlined in this paper can provide forecasts to indicate those high risk areas. The results of this study ongoing use of the methodology may be applied to the work of police and army officers in the southernmost parts of Thailand.

Possibly the closest parallel to the situation is Southern Thailand is provided by the conflict between the Tamil tigers and the government of Sri Lanka. This conflict has been going on for more than 25 years and shows no signs of reaching a satisfactory conclusion. If anything it has escalated in recent years. An analysis of the causes of the violence was provided nearly 10 years ago by Stavenhagen (1998). Like the Muslims in Southern Thailand, the Tamils are a minority in Sri Lanka as a whole but comprise the majority ethnic-religious group in the north-east, where they settled more than 2000 years ago. Like the Muslims in Southern Thailand, the Tamils have their own language but this language is not recognized as an official language by the central government and is not used at all in public schools where Buddhism is the official religion and Buddhist culture prevails. Like the Muslims in Southern Thailand, the Tamils in North-Eastern Sri Lanka feel, with some justification, that they are discriminated against in the labour force and denied opportunities to progress in government departments. Like the Muslims in Southern Thailand, after many years of smoldering conflict, militant organizations began to make their presence felt, particularly when mistakes were made by military and police authorities that resulted in fatalities. And like the Muslims in Southern Thailand, these acts of violence escalated and are now having profound negative effects on the economy of the country.

The situation in Southern Thailand might reasonably be compared with the situation in Sri Lanka 15 years ago. Sri Lanka thus provides an opportunity for Thailand to see how its future could develop.

Our map region is base on subdistricts, so we cannot compare risk rate in villages. For example there was evidence from these maps that the 50% increase in the event

incidence rate from 2004 to 2005 was not uniformly distributed over the region. In fact the subdistricts in Songkla Province and those bordering Malaysia appear to have decreased their terrorism event rates from 2004 to 2005. A single village having many cases of Yala province bordering both Pattani province to the north and Narathiwat province to the south or other in central Narathiwat province may have led to in 2004 but few in 2005.

The predictive ability of the model has potential benefits in enabling warnings to the 4 communities at high risk of terrorist events, however, the model needs to be continuously updated because changes in the pattern of events are always possible, especially if information about this model becomes known to those wishing to initiate terrorist events.

5.3 Limitations and Further Research

It was not possible to fully investigation regional differences.

While we have developed a useful statistical method for reporting and predicting the occurrences of terrorist events in the southernmost parts of Thailand, our study was limited due to time constraints.

First, this risk rate of terrorist event the dependence of impact of occurrences the terrorist event factors only. There may be other variables, such as time, locations that affect their occurrences the terrorist event.

Secondly the model can be applied to event with a specific level of severity, but for this paper a range of terrorist activity were categorizing togethers.

Thirdly, this analysis of terrorist events did not consider reason for events