This dissertation focuses on the socio-economic impacts of natural disasters in Indonesia, a densely populated developing country that has been hit by major natural disasters in recent history. More specifically, the research focuses on the eruption of the Krakatau in 1883, the tsunami in December 2004 (in Aceh) and the subsequent earthquake in March 2005 (in Nias), the earthquake in Yogyakarta in 2006, and the Merapi eruption in 2010. The main conclusions of the research are as follows:

1. The impact of natural disasters has only been temporary, indicating the relevance of the locational fundamentals theory, which states that locational factors have an important role in explaining the spatial distribution of population. In this dissertation, the three largest natural disasters in Indonesia’s history are investigated, namely the Krakatau volcanic eruption in August 1883, the Aceh tsunami in December 2004, and the subsequent earthquake in Nias in March 2005. Based on historical data about the indigenous population of Java during the Dutch colonial era, Chapter 2 shows that the Krakatau eruption had no permanent impact on the spatial distribution of population in Java. The analysis in Chapter 3 shows that the twin disaster of the tsunami and the earthquake on Nias had a temporary effect only on the distribution of population across districts in northern Sumatra. These findings give support to the locational fundamentals theory that emphasizes the relevance of the advantages of particular locations and lead to the conclusion that economic systems have a strong tendency to recover after they have been hit by negative shocks.

2. The extent to which sectors are affected by natural disasters differs between sectors. Chapter 4 investigates the impact of the Yogyakarta earthquake in 2006 on economic growth in Yogyakarta and Central Java. The results confirm that primary sectors are less affected by the earthquake than other sectors. In addition, this study shows that the impact of the earthquake on the other
sectors clearly differs. Spatial spillover effects also vary by sector. The overall impact of the earthquake on the sectoral structure and the spatial distribution of economic activity appears to be limited, consistent with the first main conclusion of this dissertation.

3. **The chance of survival after a natural disaster for firms is highly dependent on their productivity.** The impact of the earthquake in Yogyakarta in 2006 on industry has been investigated in Chapter 5 using firm data for the manufacturing industry in the Yogyakarta province. The study shows that the earthquake has forced out less productive firms from the market, while at the same time opened opportunities for newcomers. The chance of survival for existing firms depends positively on their productivity prior to the earthquake. There are no indications that the earthquake has prevented promising new firms from entering the market.

4. The decision to participate in a disaster micro insurance depends strongly on the people’s perception of the risk of a natural disaster. Micro-insurances against natural disasters are often proposed as an instrument that allows households to insure against the adverse effects of a natural disaster. Chapter 6 of this dissertation focuses on the question of the impact of the perception of the risk of natural disasters and the knowledge of insurance on the probability that people living on the slope of the active Merapi volcano will actually be a (hypothetical) insurance participant. The survey shows that the perception of the local people corresponds to the expert assessments of risk. The chapter also shows that the perception of risk is positively (though not very strongly) related to the probability to participate in disaster micro insurance. Knowledge about insurance is another important determinant of the probability to participate in micro insurance.

An important policy implication that follows from this research is that aid may help economic recovery, but that the location-specific context largely determines the effectiveness of the aid. In addition, policy must take into account the
differences in the structure of economy and the heterogeneity in the sectors that are affected by natural disasters. It is also important to providing assistance to firms to cope with the consequences of natural disasters. In order to protect people from the negative consequences of natural disasters, it is advisable to develop and introduce micro-insurance schemes. It is also important to enhance people’s knowledge about the existence and role of insurance.

Further research should focus on more spatially disaggregated data. With such data the impacts of the natural disasters can be further explored. More attention should also paid to Eastern Indonesia. This is the most lagging region in Indonesia, and is also vulnerable to natural disasters.