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# RSIS COMMENTARIES

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## **Triple Trouble in Indonesia: Strengthening Jakarta's Disaster Preparedness**

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### **Synopsis**

*The recent back-to-back disasters in Indonesia highlight the difficulties in ensuring effective early warning systems, complexity in coordination and ultimately the lack of local capacity to respond to the challenges when national assistance is stretched thinly across simultaneous disasters.*

### **Commentary**

#### **Indonesia's Vulnerability to Natural Disasters**

INDONESIA WITNESSED earthquakes and tsunami at the Mentawai Islands and volcanic eruptions at Mount Merapi within 24 hours this week. Such disasters are not new and have occurred largely in the same areas. Sumatra has experienced several earthquakes in the past years including the one at Padang in 2009 and the one that caused the 2004 tsunami in Aceh, while Mount Merapi last erupted in 2006. There are severe implications of such natural disasters to the security of Indonesia as a state and of its communities.

The 2010 Asia Pacific Disaster Report recorded that over 18 million people were affected by natural disasters in Indonesia from 1980 to 2009. The same report ranks Indonesia fourth among Asia Pacific countries that have been hit by natural disasters from 1980 to 2009. The 2009 Global Assessment Report on Disaster Risk Reduction also ranked Indonesia highly on its level of human exposure to disasters. It ranks 3 out of 153 for earthquakes and 1 out of 265 for tsunamis. Moreover, earthquakes and tsunamis stand relatively on par with forest fires in terms of economic losses.

With such frequency in disasters, it raises questions of the extent to which lessons from previous disasters were learnt and the progress of Indonesia's disaster preparedness. It is apparent that despite the initiatives and measures taken to address vulnerabilities to natural disaster, local capacity and resilience are still lacking.

#### **Problems on current initiatives**

Despite Indonesia's notable development of its disaster management initiatives since the 2004 tsunami, recent disasters showed that further improvements are needed. This is especially so in the areas of early warning systems, disaster risk awareness of the communities and local disaster management capacities. The 2004 tsunami exposed the crucial need especially for effective early warning systems. Implementation of the Indonesian Tsunami Early Warning System began in 2005, incorporating three components – an earthquake

monitoring system, a sea level monitoring system and a computer modelling system able to generate different tsunami projections. However, this early warning system is still work in progress.

Specifically for the Mentawai Islands, there is a dearth of suitable infrastructure and funds to support efficient early warning system facilities. Onshore early warning system detectors have yet to be fixed due to the unsuitable physical terrain off the islands. With no port and deep sea conditions off the island, constructing detectors would be highly costly. The area thus has had to rely on off-shore floating detectors. These however have been experiencing technical problems for the past three years and often been prone to theft or vandalism. That said, even the nearest tsunami buoy is at Teluk Bayur 12 hours away by boat from the Mentawai Islands. More importantly, it appears that no steps had been taken to advise villagers to flee to the hills in the event of an earthquake, without waiting for a tsunami alert which never came. Also, the coastal communities live in areas where electricity, mobile phones and other telecommunication means are limited. Having vast coastlines also becomes a constraint for Indonesia to deploy sirens – a more traditional way of alert – at all vulnerable areas.

In instances where EWS are working effectively, difficulty sets in trying to evacuate communities. In the case of Mount Merapi, while evacuation notices were given as early as Monday – just before the eruption – there was a sense of inertia amongst locals in the vicinity to leave their houses. They were concerned about their properties and livestock that they would have to leave behind. This highlights the importance of heeding evacuation advice. Moreover, there is a need to alter public awareness from perceiving natural disasters as unmitigated and unpredictable events to internalising disaster risk reduction (DRR) and responses as part of their lives.

### **Role of Local Government**

In building local resilience to disasters, the role of local government is crucial. This importance is highlighted in Indonesia's Disaster Management Law number 24/2007, where provincial and district administrations are at the forefront of disaster management. The National Agency for Disaster Management (BNPB) and military provide backup when requested. That said, the BNPB is going through a transition which can impede communication and coordination between national and local governments.

A 2009 study on the implementation of DRR at the local level by the Global Network of Civil Society Organisations for Disaster Reduction reported that nationally-formulated policies did not create systemic changes at local levels; scarce resources are considered one of the main constraints to progress but those at local level remain untapped. Law number 27/2007 required that regional agencies for disaster management be set up in all 32 provinces but they are only established in 18 provinces so far. In addition, there seems to be a strong sense of dependency on the national government to provide the necessary support, where the local government lacks capacity and resources.

Apparently many local governments are reluctant to use their budgets for disaster management. This may place a strain on resources at the national level, especially for responses when multitude of disasters in different provinces occur simultaneously – as seen in 2009 and the current situation. Coordination also becomes harder when the area is remote. For example relief assistance to Mentawai itself takes half a day's boat ride from the port of Padang.

### **Reducing Dependence on Jakarta**

Building local capacity is vital to reduce dependence on the national government for assistance and thereby ensure more effective responses to disasters. Reports and scientific studies have indicated that Indonesia's risk to multi-hazard disaster is increasing. Therefore, Indonesia must factor in DRR in building its capacity for recovery, rehabilitation and reconstruction from current disasters in order to mitigate future disaster risks.

The importance of disaster management needs to be appreciated among communities and at all levels of government – this would include reflecting it in budget planning.

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