Disaster Relief Engineers

By: Mr. Gary Wong

Malaysia has always been considered as a safe haven, far away from the ravages of natural disasters such as earthquakes, hurricanes, volcanic eruptions and typhoons (apart from the seasonal monsoon flooding and tropical thunderstorms). Our privileged position, sheltered from the Pacific "Rim of Fire" is testament to our nation's geographical fortune.

The event of last December 26 was a jarring wake-up call for our country. Tsunamis and tidal waves are almost unheard of, before it rudely swept up to our northern shores and caused untold damage last year. The extent of the damage was minimal compared to the devastation that is wreaked upon countries in the direct vicinity of the Indian Ocean, including Indonesia, Sri Lanka, India and Thailand.

By and large, the rescue and relief efforts were as responsive and swift. However, many military and paramilitary relief troops (the most responsive and mobile line of disaster relief) were ill-equipped to assess the current and potential damages that collapsible structures and shaky foundations from the ruins left by the earthquake and tsunami, can cause. It is with this scope of engineering expertise and emergency responsiveness in mind, that RedR was formed.

RedR (an abbreviation for Registered Engineers for Disaster Relief) was founded in 1979 by Peter Guthrie, a Civil Engineer who came up with the RedR initiative after serving a stint at Vietnamese refugee camps in Malaysia. Identifying the importance of engineers in front-line emergencies as well as the relative difficulties in recruiting such engineers with the skills and on-field training required, Peter Guthrie formed RedR as a voluntary register of engineers who can be seconded to front-line relief agencies at a moments notice.

The aftermath of the December 26, 2006 tsunami has only strengthened the notion that engineers should be at the front-lines of emergency efforts. The tsunami ravaged infrastructures and landmass, which require careful and professional reconstruction and rehabilitation.

Figure 1: The devastation left behind by the tsunami in Calang, Indonesia

Figure 2: Floods pose major sanitation problems and as well as associated health risks

Figure 3: The ruins of a collapsed building due to the April Earthquakes in Nias, Indonesia
Note: All images taken from RedR Australia's website courtesy of Mal Ralston and David Lavell.

RedR Australia was one the first standby and response agencies in this region to be deployed to Sri Lanka and Indonesia for relief efforts, along with other international humanitarian agencies. RedR ressponded by deploying logisticians, civil and water sanitation engineer, as well as camp managers to areas most affected by the Indian Ocean Tsunami.

Y. Bhg. Academician Dato' Ir. Lee Yee-Cheong, who is the current president of WFEO (World Federation of Engineering Organisations) and co-coordinator of Taskforce 10 on Science, Technology and Innovation for the UN Millenium Project, has been seeking to establish a country-specific arm of RedR in Malaysia for immediate action and dispatch to South-East Asian countries.

The prospect of locally trained RedR engineers require constant monitoring and support from local military, government, NGO as well as RedR certified trainers in Malaysia. Dato' Ir. Lee said that one of the strongest support would have to be from our own The Institution of Engineers, Malaysia (IEM). IEM is a key organisation to coordinate engineering expertise in our country. Most recently, three Malaysians (Members of IEM) underwent intensive training at the Australian branch of RedR.

To realise the goal of our own country-specific RedR, cooperation from all organisations is essential, as is the willingness of IEM members to undergo humanitarian aid courses as well as field intensive training. It is time for the professional engineer to rise to the occasion to contribute towards IEM and the country. ■