

Before disaster strikes

New radar technology helps predict flash floods

PETALING JAYA: The evacuation time during flash floods can be increased by 20 minutes by using a new weather radar technology, said a Japanese expert.

Prof Dr Eiichi Nakakita said this would significantly reduce the number of casualties, especially among children, who are often victims during flash floods as adults do not recognise the risks.

"You may think this is a very short time, but 20 minutes is quite enough for children to be evacuated. The Japanese government has also installed more ladders along riverbanks to help people to climb to safety," he said.

Prof Nakakita, who works in the Hydrometeorological Disasters Research Section of Kyoto University's Disaster Prevention Institute, said its weather radars employed polarimetric technology.

He said this would help them detect the size and shape of raindrops, adding that thunderstorms could have raindrops around 8mm in size, compared to the usual 2mm.

"Smaller raindrops are more



Wrath of nature: A villager guarding his flooded house near Kuantan recently. — Bernama

spherical in shape, and become oval-shaped when they are heavier. The bigger the raindrops, the heavier the rainfall will be," he said.

The Doppler weather radar, also used in Malaysia, employs electromagnetic waves to measure the intensity of rainfall and determine its potential to cause severe weather conditions.

Prof Nakakita said Japan was in the midst of updating its Doppler weather radar with polarimetric technology and installing more X-band Doppler weather radars which would increase the observa-

tion accuracy.

"This gives us a more accurate weather prediction model and helps reduce the transmission time from our observations to the public," he said, adding that the X-band weather radars were being installed in major cities in Japan.

Prof Nakakita, who spoke at the Malaysia-Japan Collaboration Seminar on Flood Disaster Prevention, stressed the importance of educating the public on self-protection and the danger of heavy rainfall.

He said floodwaters could rise

rapidly, pointing to a 2008 case in Japan where river levels rose by 1.34m in an hour, resulting in five casualties, including four children.

"Teachers in schools should also constantly remind children to be careful, while governments should provide the infrastructure to assist the public when floods occur," he said.

In Malaysia, east coast states like Terengganu, Kelantan and Pahang recently experienced floods due to the monsoon season, which forced schools to close and people to evacuate their homes.