

PIARC 23WRC, Newsletter Interview (Draft) to Dr. Toshio Iwasaki, President, Public Works Research Center (PWRC), Tokyo, Japan; and Chair, PIARC 23WRC Special Session SP-14: “Disaster Mitigation: Road Authorities Preparation and Response to Emergencies,” to be held on Tuesday, September 18, 2007, in Paris

Answer-1.

“Consequences of a not well-managed disaster”


Some sections, elevated bridge sections for example, of a highway system may completely collapse due to a disastrous event such as an earthquake, flood, or fire, and serious damage including human injuries/fatalities may occur.

Consequences of an ill-managed disaster in an extreme case may include a failure in reconstructing the damaged structures at the same location (or the same route).

This is most likely to happen due to opposition from the residents along the collapsed highway who might believe that similar accidents could reoccur.


Answer-2.

“Curing methods and crisis control strategies”



When reconstruction of the collapsed sections could not be implemented by any means, the road offices will be compelled to consider the construction of an alternate route (detour).

However, this alternative plan should generally be avoided since it will really cost and require a long time. It is most important to convince the local residents that an early opening of the damaged highway sections is crucial to the people's life and local economy in the surrounding communities.



On the other hand, in some cases such as when large mountain-slope failures are likely to occur repeatedly, the route may be changed (re-routing) according to the judgment of road management authorities, to purposely avoid future similar disasters.

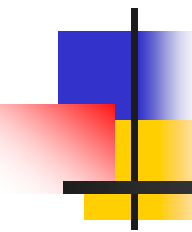
(Repair work could be effectively performed in two stages: temporary repair and permanent repair. Temporary repair is quick repair work on heavily damaged structures to open the particular sections for emergency use. Permanent repair is reliable repair work for which necessary time and resources can be assigned.)

Answer-3.


“Progress in crisis management plan”

I know some examples of recent progress in the implementation of crisis management plan for road maintenance.

A) First, California Department of Transportation (Caltrans) District 4 in Oakland has developed “Bay Area Incident Response System (BAIRS) (June, 2003)” which is an electronic tool to track, query, update, and provide key information on the incident, available resources, and usable detours. With use of BAIRS, average time for complete incident resolution may be reduced to 1.5 hours (long-term goal) from 4 hours (average in 2003).




It is presumed that BAIRS greatly contributed in reducing overall response and clearance time when a tanker truck fire caused the collapse of Oakland Freeway I-580 viaduct at MacArthur Maze on April 29, 2007. Also, other factors including Caltrans incentive contracting for repair work effectively helped early reopening of I-580. It is quite amazing to note that the collapsed section of I-580 reopened on May 24, only 25 days following the accident occurrence.




B) Second, Transit New Zealand has prepared and disseminated “Risk Management Process Manual (September, 2004).” The objectives of this Manual are to describe how risk management applies to the Transit and its business, and to provide the staff with a set of tools that will help minimize threats to the Transit business and maximize opportunities to enhance it.

C) Third, the Japan Road Association has recently updated “Volume of Seismic Damage Repair Methods (March, 2007, in Japanese) -- Guidelines for Earthquake Disaster Measures for Roads.”

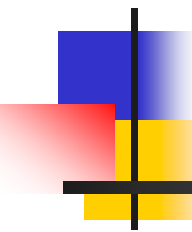


This Volume, available at bookstore at 6,090 yen, illustrates practical examples of repair methods employed when repairing seismically damaged bridges, tunnels, embankments, and slopes. The examples, with many photos and illustrations, include those damaged by the 1995 Hyogo-Ken Nanbu (Kobe) Earthquake, the 2003 Tokachi-Oki Earthquake, and the 2004 Niigata Chuetsu Earthquake.



D) Fourth, the Federal Highway Administration (FHWA) of the U.S. Department of Transportation has updated the Emergency Relief Manual (August, 2003), which provides updated guidelines and instructions on the Federal Highway Administration's emergency relief (ER) program.

This Manual provides information for FHWA, State, and local transportation agency personnel on policies and procedures for requesting, obtaining, and administering ER funds.



E) Last, the Washington State Department of Transportation (WSDOT) has prepared the Emergency Relief Procedures Manual (February, 2007), to assist in obtaining federal resources for the repair of local Federal-aid highway facilities damaged and/or destroyed by natural disasters or major catastrophes.

The purpose of this Manual is to provide the legal and procedural guidelines for WSDOT employees to prepare all necessary documents to respond to and recover from emergencies/disasters that affect the operations of the Department.

Answer-4.


“Implementation and follow-up of the Hyogo Action Plan (January, 2005)”

An official answer to this Question can be found on the UNISDR Website:

<http://www.unisdr.org/eng/hfa/hf-implemt-states.htm>.

Not yet introduced on the Website, I would like to mention about “International Centre for Water Hazard and Risk Management (ICHARM)” which was established in March, 2006, under the auspices of UNESCO.

The establishment of ICHARM, approved by the UNESCO General Conference on October, 2005, is a response to the worldwide need to properly prepare for and react to water-related disasters.



The Centre, based at the “Public Works Research Institute (PWRI)” in Tsukuba, Japan, aims to promote research, training and information networking activities, focusing on the issues and problems related to water hazard and risk management.

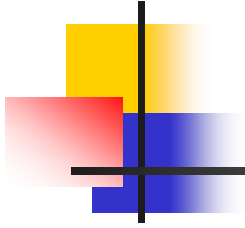
In order to accomplish its mission, ICHARM (<http://www.icharm.pwri.go.jp>) is now keenly performing research, training and information network formulation, presumably including road disaster related information

In conclusion, I would cordially invite you to join us in our Special Session SP 14 “Disaster Mitigation: Road Authorities Preparation and Response to Emergencies,” to be held on Tuesday morning, September 18.

During the SP 14 Session global road-related activities will be first introduced by two international experts on disaster reduction.

Next, several case studies including the experiences of and lessons from road disasters caused by hurricanes, tsunamis, earthquakes, rock slides, and floods will be presented by road engineers from five different countries.

Then, floor audiences will be welcomed to take part in discussions about the presentations just made as well as their own experiences, for the purpose of exchanging the knowledge on disaster preparedness and emergency responses between road authorities of disaster-prone countries.



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