

Application of Soft Systems Methodology in Solving Disaster Emergency Logistics Problems

Authors : Alhasan Hakami, Arun Kumar, Sung J. Shim, Yousef Abu Nahleh

Abstract : In recent years, many high intensity earthquakes have occurred around the world, such as the 2011 earthquake in Tohoku, Japan. These large-scale disasters caused huge casualties and losses. In addition, inefficient disaster response operations also caused the second wave of casualties and losses, and expanded the damage. Effective disaster management can be used to respond to the chaotic situation, and reduce the damage. However, some inefficient disaster response operations are still used. Therefore, this case study chose the 921 earthquakes for analysing disaster emergency logistics problems and proposed the Soft Systems Methodology (SSM) to solve disaster emergency logistics problems. Moreover, it analyses the effect of human factors on system operation, and suggests a solution to improve the system.

Keywords : soft systems methodology, emergency logistics, earthquakes, Japan, system operation

Conference Title : ICIESE 2014 : International Conference on Industrial Electronics and Systems Engineering

Conference Location : Melbourne, Australia

Conference Dates : December 16-17, 2014