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Learning from the Mexico City Earthquake in 1985

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Natural disasters are increasing alarmingly worldwide in recent years. They have killed millions of people, and adversely affected the life of at least one billion people. Given this, natural disasters present a great challenge to society today concerning how they are to be mitigated so as to produce an acceptable risk is a question which has come to the fore in dramatic ways recently. The paper addresses the following question: what could be learnt from natural disasters? The paper presents some preliminary results of the analysis of the Mexico City earthquake in 1985, by applying the Management Oversight Risk Tree (MORT) model. On September 19, 1985, at 7:19 hrs local time an intense earthquake with a magnitude of 8.1 on the Richter scale struck the country. The epicentre was located near the coast of the state of Guerrero, about 400 kilometres southeast of Mexico City. It is believed that thousands of people were affected and more than 10000 people were killed by the earthquake.
On the other hand, the MORT model may be regarded as a structured checklist in the form of a complex 'fault-tree' model that is intended to ensure that all aspects of an organization's management are looked into when assessing the possible causes of an incident. Moreover, the MORT has been applied extensively to the analysis of past failure of socio-technical systems; this is the first time that it has been applied to the case of natural disasters. A number of organizational failures have been highlighted by the model. It is hoped that by conducting such analysis lessons can be learnt and disseminated so that the impact of natural disasters such as Earthquakes can be mitigated in the future.