



## **Earthquake Disaster Mitigation**

Utilization of advanced technologies and information protects our society from earthquakes



#### Hazard

Earthquake Tsunami

### Solution Purpose

Prevention & Mitigation Recovery

### Solution Theme

Research & Investigation Risk Assessment Disaster Prevention Plan Finance & Insurance Infrastructure Technology Information & Communication Technology Products & Goods Education & Training

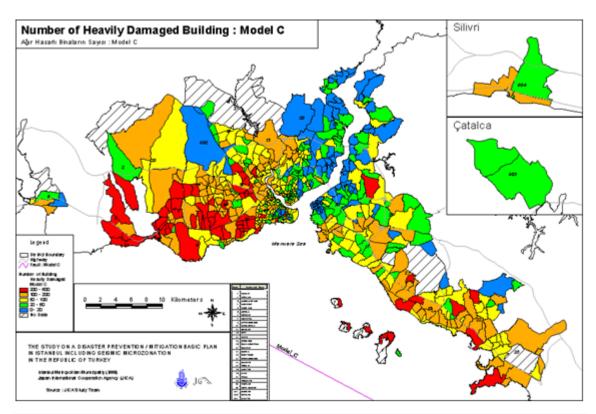
### **Technology Subject**

Research Site Investigation Technical Research & Development Hazard Identification Hazard Simulation Risk Monitoring Impact & Damage Simulation Mitigation Plan Business Continuity Plan Insurance River & Basin Dam & Reservoir Sabo Railways Airport Port Essential Utilities Urban Information Gathering Information Analysis & Judgement Machinery & Equipment Human Resource Development Training & Exercises

### **Advantages**

OYO provides various simulation technologies to understand the phenomena of earthquake and tsunami, and also provides solutions of damage estimation, disaster prevention plan and business continuity plan, etc.

## Solution Illustrated



ltem	Damage
Heavily Damaged Buildings	59,000 (7%) nos. 268,000 households
Human Casualties	87,000 Deaths 135,000 Severely Injured

# Estimation of Heavily Damaged Buildings in Istanbul, Turkey

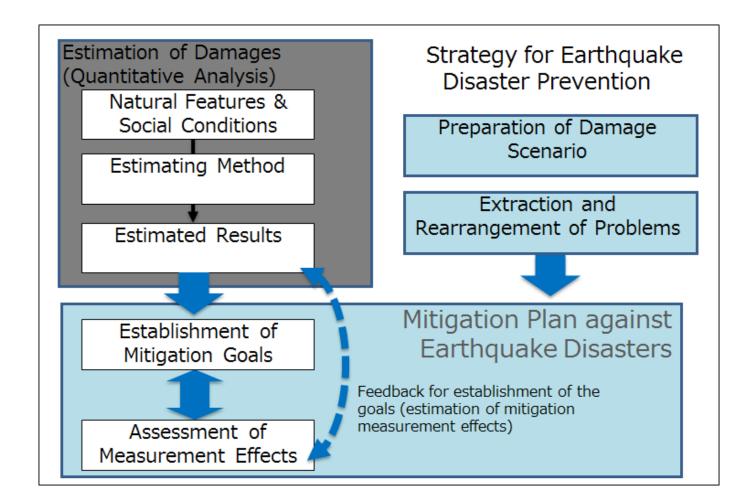
## **Background**

OYO firstly involved damage investigation of Niigata Earthquake in 1964. Since then, OYO has involved various research on more than 50 natural disasters.

OYO has coped with pursuing questions what geology with what earthquake at what time occurs what damage, and how could it be mitigated. The answers from them are now contributing societies to estimate potential damages from earthquake disasters. OYO also provides variable solutions for planning local disaster management and assessing business continuity at natural disasters.

## **Exposition of the Solution**

Along with quantitative estimation of damages, we prepare a damage scenario on which time shift of damages is examined. This allows you to extract concerned problems in disaster prevention / mitigation and confirm necessary preparation concretely.



## **Achievements of Examples**

OYO has conducted more than 160 jobs in both domestic and overseas from 1992.

	No.of	Б	
Year	the job	Remarks	
1992	7		
1993	7		
1994	4		
1995	19	Kobe Earthquake	
1996	13		
1997	8		
1998	4		
1999	1		
2000	2		
2001	3		
2002	4		
2003	8		
2004	9		
2005	7		
2006	4		
2007	5		
2008	8		
2009	6		
2010	10		
2011	9	Great East Japan Earthquake	
2012	15		
2013	11		
Total	164		

# **Corporate Profile**

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