

SESSION III – 2nd PART

**Gaps in the Current Situation and Opportunities to Launch
New Initiatives in Seismic Hazard Mapping**

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Gaps in the Current Situation and Opportunities to Launch New Initiatives in Seismic Hazard Mapping

- Gap between the current level of “**Methodologies**” and the current level of **Available Data** (especially on **faults**).
- Gap between the rate of increase of **Public Risk Awareness** due to recent earthquakes and the rate of increase in the improvement of the **Risk Management Strategies** (seismic codes and zoning maps, risk avoidance and reduction projects, revisions in land use planning, retrofitting of public and private buildings).

Gap Between the Current Level of “Methodologies” and the Current Level of Data

In recent years more attention has been paid to the assessment of seismic hazard nucleating from faults. The seismic hazard assessment procedures taking into consideration the hazard nucleating from faults and utilizing more appropriate **stochastic models** have become the current trend in seismic hazard mapping. Accordingly, in the development of **new generation seismic hazard maps**, one of the main concerns should be the assessment of the potential threat created by **active faults**.

This requires:

➤ **METHODOLOGY**

Stochastic models, numerical algorithms for computations, powerful computing environments, GIS.

➤ **DATA**

Required on the main parameters of **active faults** (actual location, activity rate, type, orientation, length, segments, age, annual slip rate, magnitude and return period of the maximum likely earthquake on the active fault).

“**METHODOLOGY**”

(High Level)

GAP

DATA

(Low Level)

The elimination of the **gap** between the current level of methodology available for modeling seismic hazard due to faults and the level of available data on the main characteristics of faults will permit a realistic evaluation and assessment of seismic hazard.

The **opportunity** here is the increased possibility of getting funds to support the following new initiatives:

- Organization and coordination of international projects for the assessment of **data on the characteristics of major active faults** on a world-wide basis.
- Establishment of an international **data-base** for the parameters of major active faults.
- Setting up **guidelines and standards** for the development of seismic hazard maps (methodology, data, metrics, map characteristics, color codes, etc).

The **overall opportunity** is the generation of new consensus seismic hazard maps based on the best available science and state of the art, which can be used for achieving **seismic safety**.

Gap Between the Rate of Increase of **Public Risk Awareness** Due to Recent Earthquakes and the Rate of Increase in the Improvement of the **Risk Management Strategies**

Recent earthquakes all over the world has increased **public risk awareness**. But this has not been used effectively to create new or revised seismic hazard maps which form the bases for the management of overall seismic risk.

The rate of improvement and updating of seismic codes, land use plans and retrofitting of public and private buildings in order to build communities that can withstand the effects of earthquakes failed behind the rate of increase in public risk awareness.

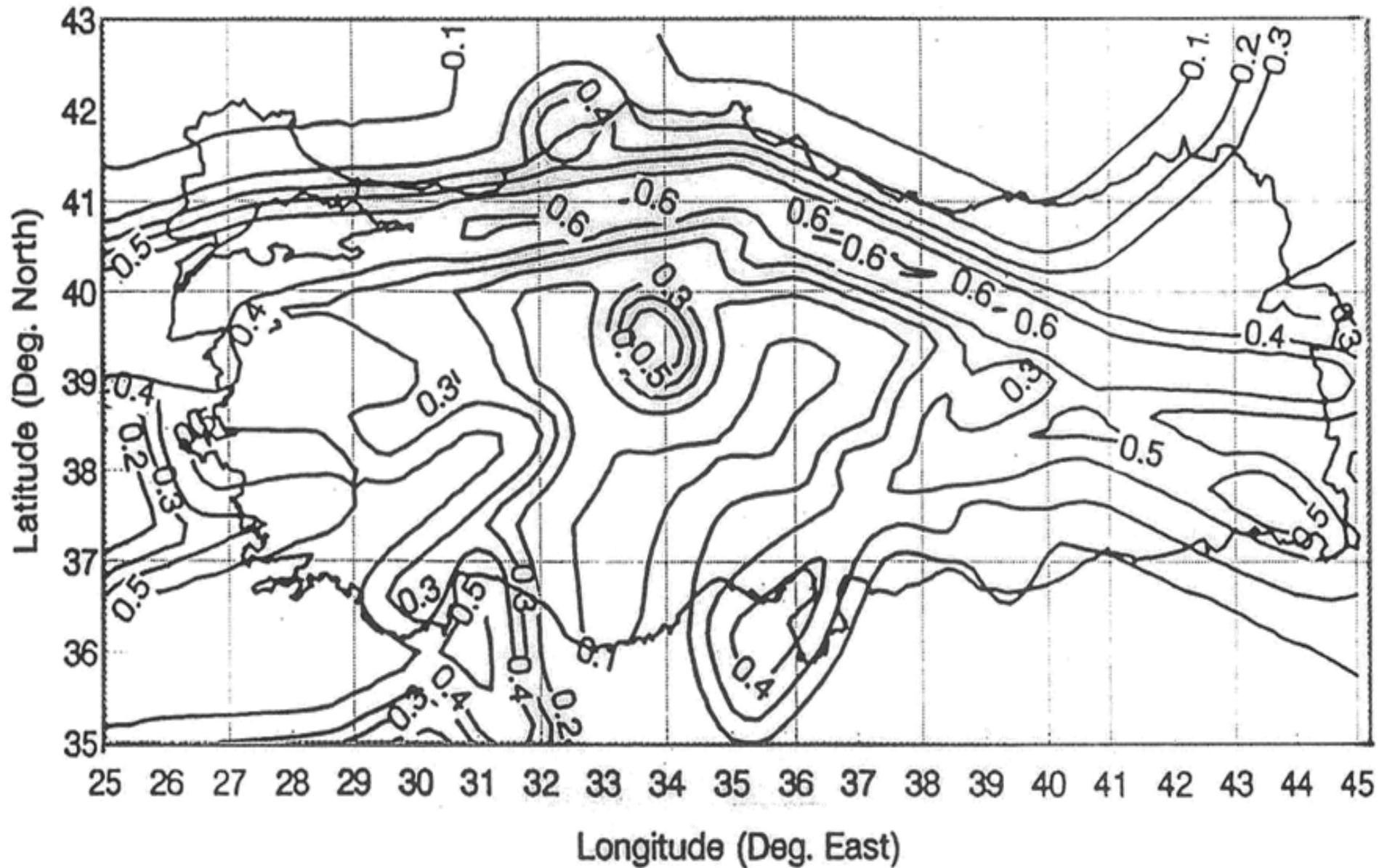
The resulting gap creates an **opportunity** for channelizing the increased public risk awareness to put pressure on the public authorities for allocating more effort and funds for **mitigation processes** (e.g. risk avoidance and reduction projects, revisions in land use planning, retrofitting of public and private buildings).

Impact of Hazard Mapping on the Development and Implementation of an Insurance Mechanism to Cover Earthquake Risks (TCIP Example)

In the development and implementation of the **Turkish Catastrophe Insurance Pool (TCIP)** the **seismic zoning map** plays an important role. The seismic zoning map forms the basis for the assessment of earthquake insurance rates consistent with the seismic hazard.

- Seismic Hazard Analysis
- Zoning Map

PGA contours for a return period of 475 years as an output of the probabilistic seismic hazard analysis



On the **web page** of **TCIP** besides information on the insurance issues, an **interactive seismic zoning map** and real-time information is provided on earthquakes that are occurring within the boundaries of Turkey.

These contribute to the **risk awareness** in the public.

www.dask.gov.tr



Bize ulaşmak için:
0 212 368 0 800

ZDS Genel Şartlarında belirtildiği üzere her bir

SON DEPREMLER
Richter 3.5'dan büyük

4,8 YEDISU	3,8 ONIKI AD	3,9 CAGLAY	3,6 KUSADASI
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DASK Bilgi Merkezi

- Police Prim ve Bedeli Hesaplama
- Police Sorgulama
- İstatistikler
- T.C.Kimlik Numarası Sorgulama
- Vergi Kimlik Numarası Sorgulama
- Önemli Linkler
- Depremle Yaşamak

Zorunlu Deprem Sigortası Bilinmesi Gerekenler

Etkileşimli Deprem Haritası

Doğal Afet Sigortaları Kurumu Bilgi Edinme Hakkı

Police Prim ve Bedeli Hesaplama	Police Sorgulama	İstatistikler
Vergi Kimlik Numarası Sorgulama	Önemli Linkler	Depremle Yaşamak

Deprem İzle - Microsoft Internet Explorer

Son 7 Güne Alt 3.5'dan Büyük Depremler ✓ Deprem Risk Haritası ✓

Malatya

İstanbul	İçer-Risk Bölgesi	1 Adalar	1 Avclar	1 Büyükçekmece	2	
Yaşayan Police	Merkez	2 Bahçelievler	2 Bakırköy	1 Bayrampaşa	2	
Toplam Konut	Bağcılar	2 Beykoz	2 Beyoğlu	2 Çatalca	2	
Sigortalılık Oranı	Beşiktaş	1 Esenler	2 Eyüp	3 Fatih	2	
	Eminönü	2 Gaziosmanpaşa	2 Güngören	2 Küçükçekmece	1 Kadıköy	1
	Kağıthane	2 Kartal	1 Maltepe	1 Pendik	1	
	Sarıyer	3 Silivri	2 Sultanbeyli	1 Şile	2	
	Şişli	2 Tuzla	1 Ümraniye	2 Üsküdar	1	
	Zeytinburnu	1				

Tüm depremler için tıklayınız