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REPUBLIC OF TURKEY
PRIME MINISTRY
Disaster and Emergency Management Presidency

DISASTER PROFILE AND MANAGEMENT SYSTEM OF TURKEY

Asian Disaster Reduction Center - ADRC

09 September 2019 – Kobe/ JAPAN



REPUBLIC OF TURKEY
PRIME MINISTRY
Disaster and Emergency Management Presidency

CONTENT

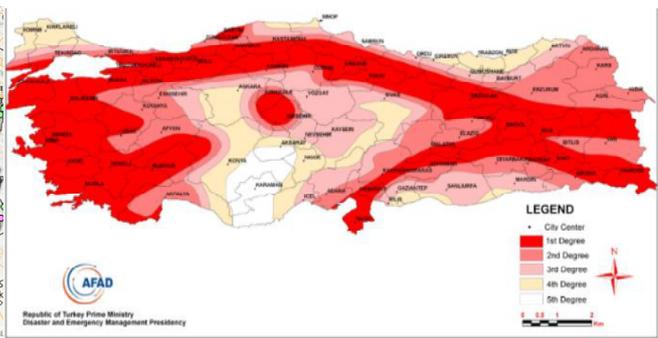
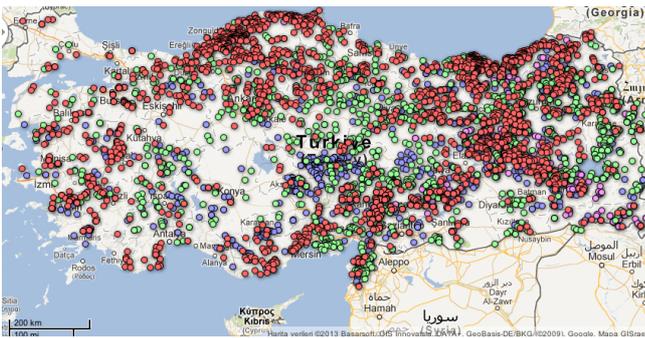
- ✓ **DISASTER PROFILE IN TURKEY**
- ✓ **DISASTER RISK MANAGEMENT MODEL IN TURKEY**
- ✓ **DISASTER RISK REDUCTION MODEL IN TURKEY**
- ✓ **BEST PRACTICES ON DISASTER RISK REDUCTION IN AFAD**
- ✓ **BEST PRACTICES ON DISASTER RISK REDUCTION IN TURKEY**



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DISASTER PROFILE

AFAD DISASTER PROFILE IN TURKEY



Earthquake 61% Flood 15%
Landslide 16% Rockfall 5%
(In terms of damages and fatalities)

- 96% of our country is under the danger of earthquake hazard
- 66% of seismic belt is right on active faultline
- 72% of our population and 75% of industrial plants are under the Earthquake Risk





Disaster Ranking in Terms of Economic Damages

Disaster	Date	Cost (US\$)
Earthquake (Marmara)	1999	20,000,000,000
Earthquake (Van)	2011	5,000,000,000
Flood	1998	1,000,000,000
Earthquake (Düzce)	1999	1,000,000,000
Earthquake (Erzincan)	1992	750,000,000
Flood	2009	550,000,000
Earthquake (Adana-Ceyhan)	1998	550,000,000
Flood	2006	317,000,000
Earthquake (Afyon-Dinar)	1995	205,800,000
Earthquake (Kütahya-Simav)	2011	155,000,000
Flood	1990	150,000,000
Earthquake (Bingöl)	2003	135,000,000

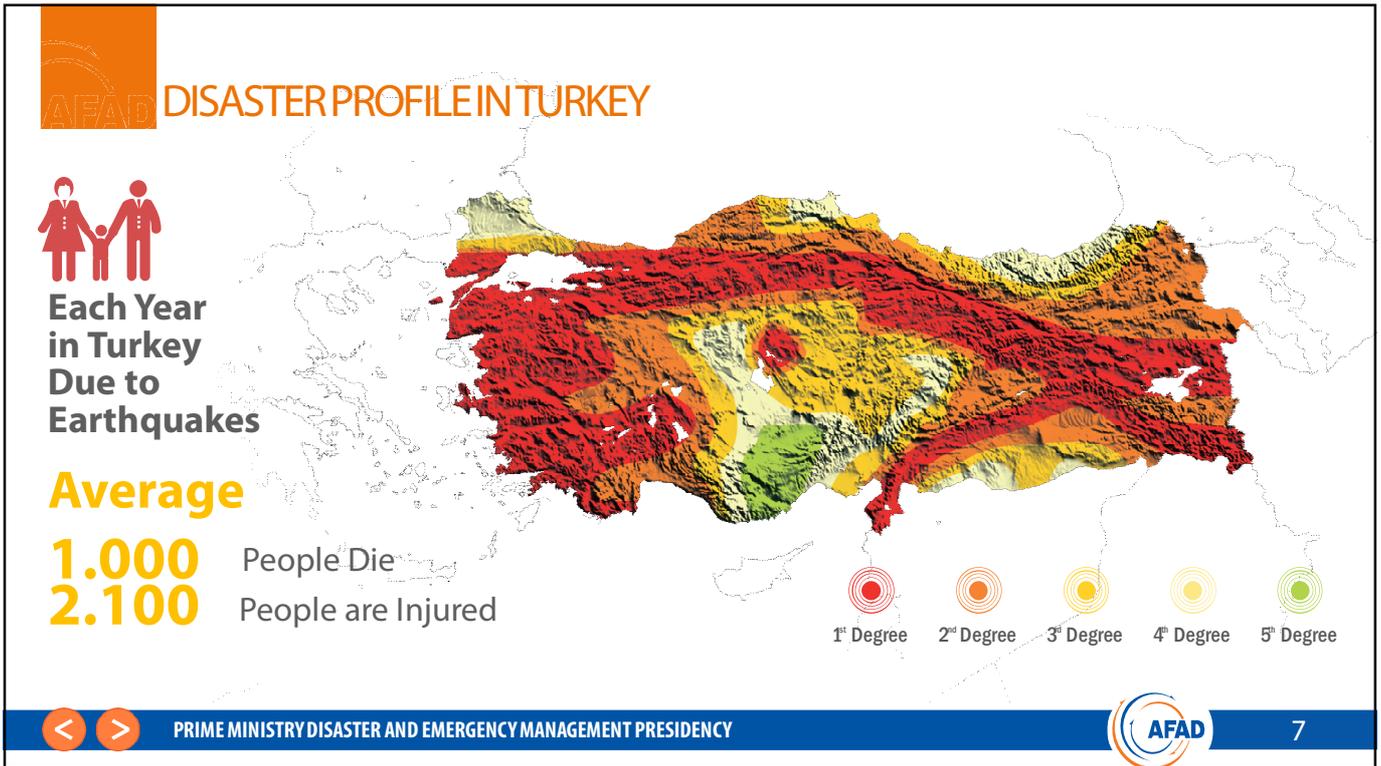


DISASTER PROFILE IN TURKEY

Due to Earthquakes
in Turkey
in the Past 58 years

More than
400,000
Buildings
Were Destroyed or
Damaged

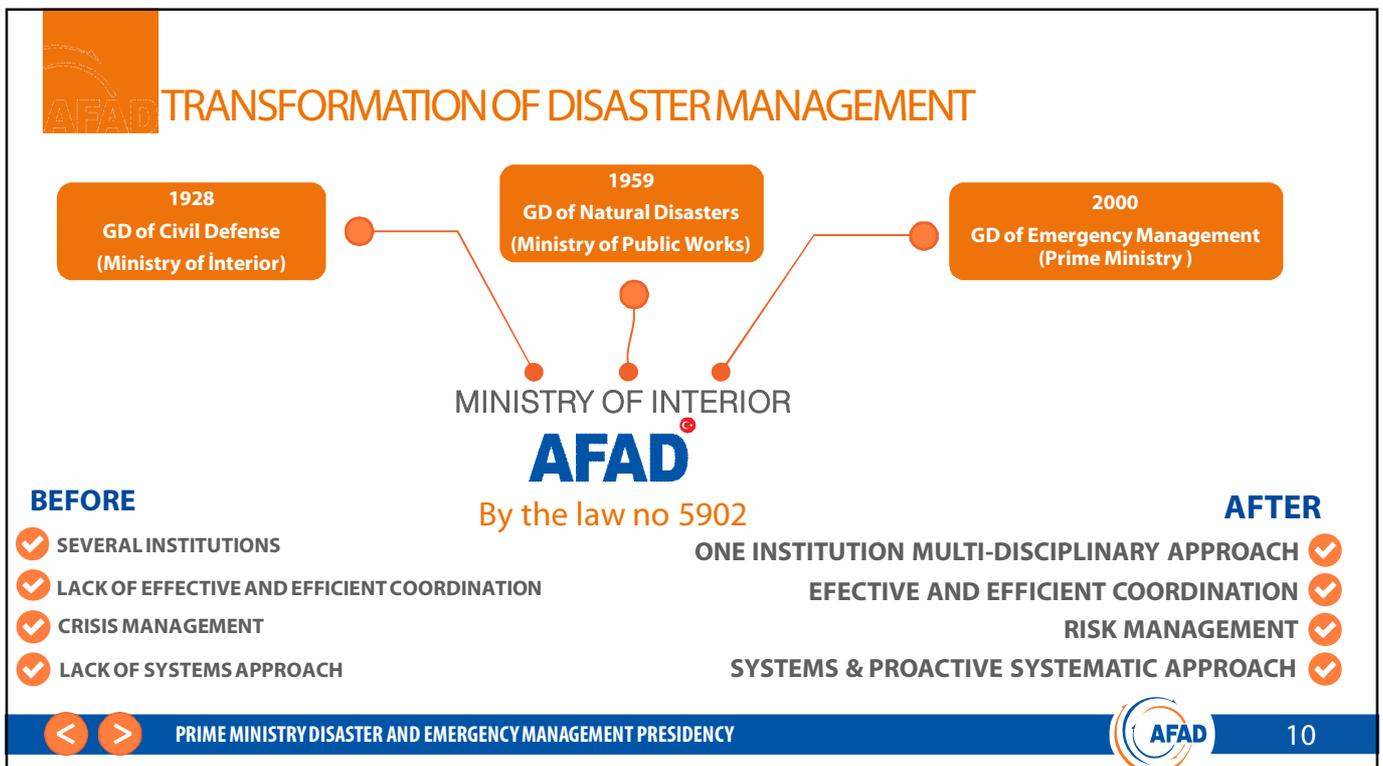
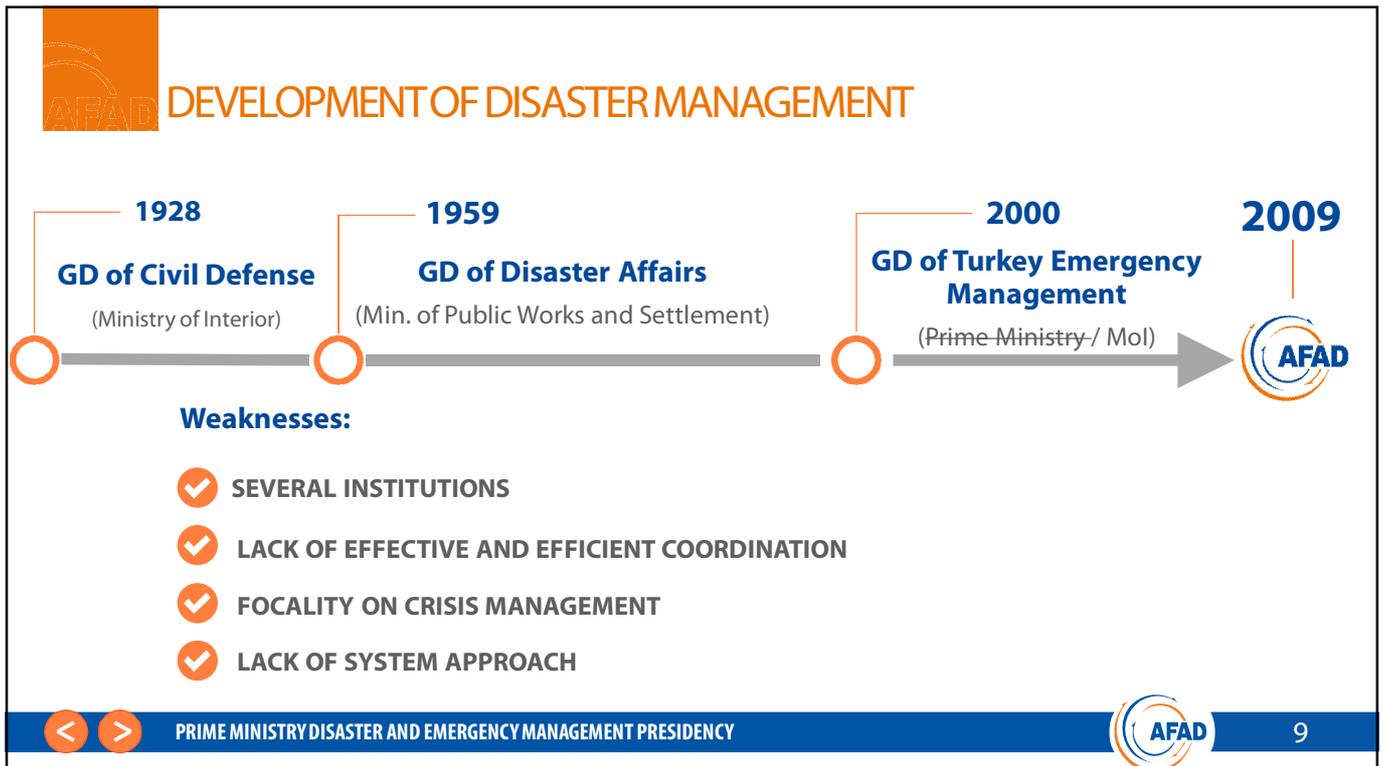




AFAD

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DRM MODEL





TRANSFORMATION OF DISASTER MANAGEMENT

- ✓ From crisis management to risk management
- ✓ Multi-disciplinary sense
- ✓ Proactive approach for preparedness and response
- ✓ Strengthened IT



NATIONAL DISASTER MANAGEMENT FRAMEWORK

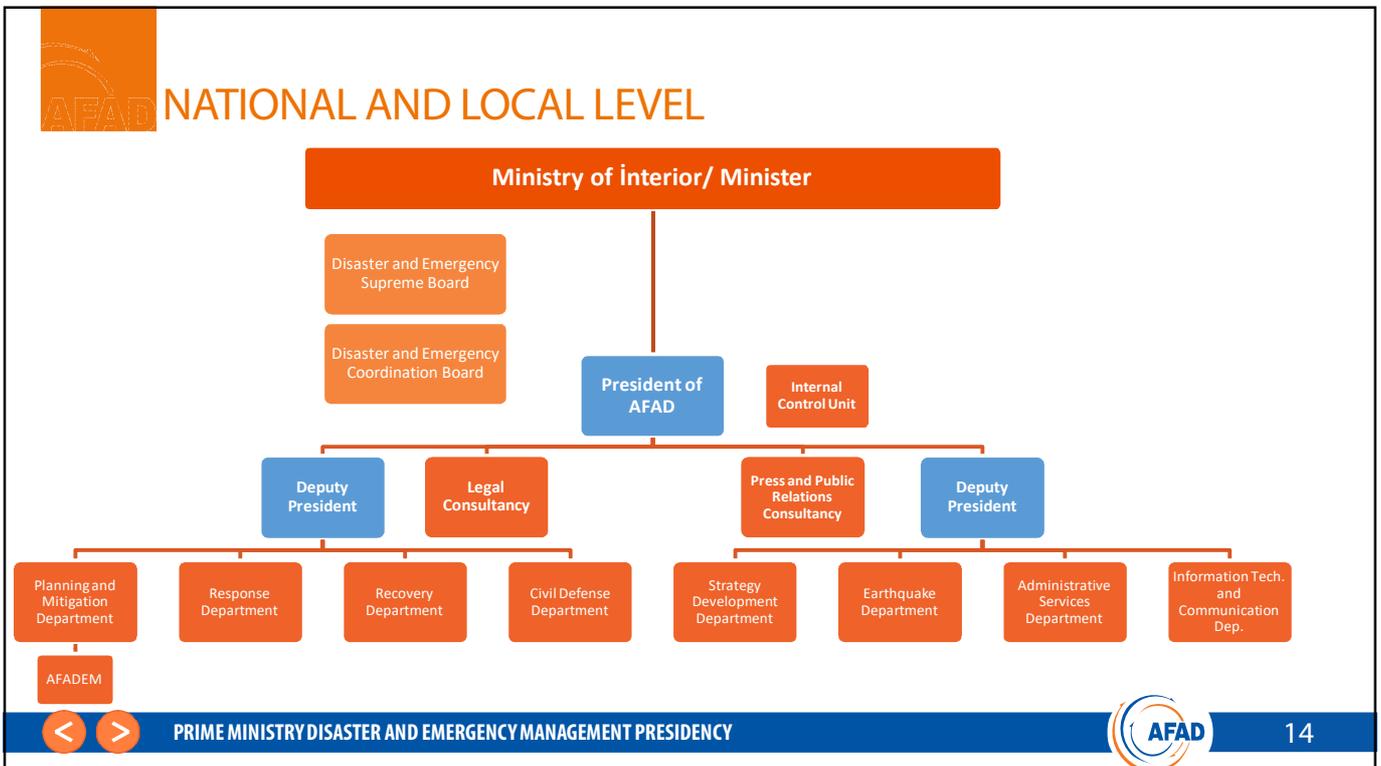
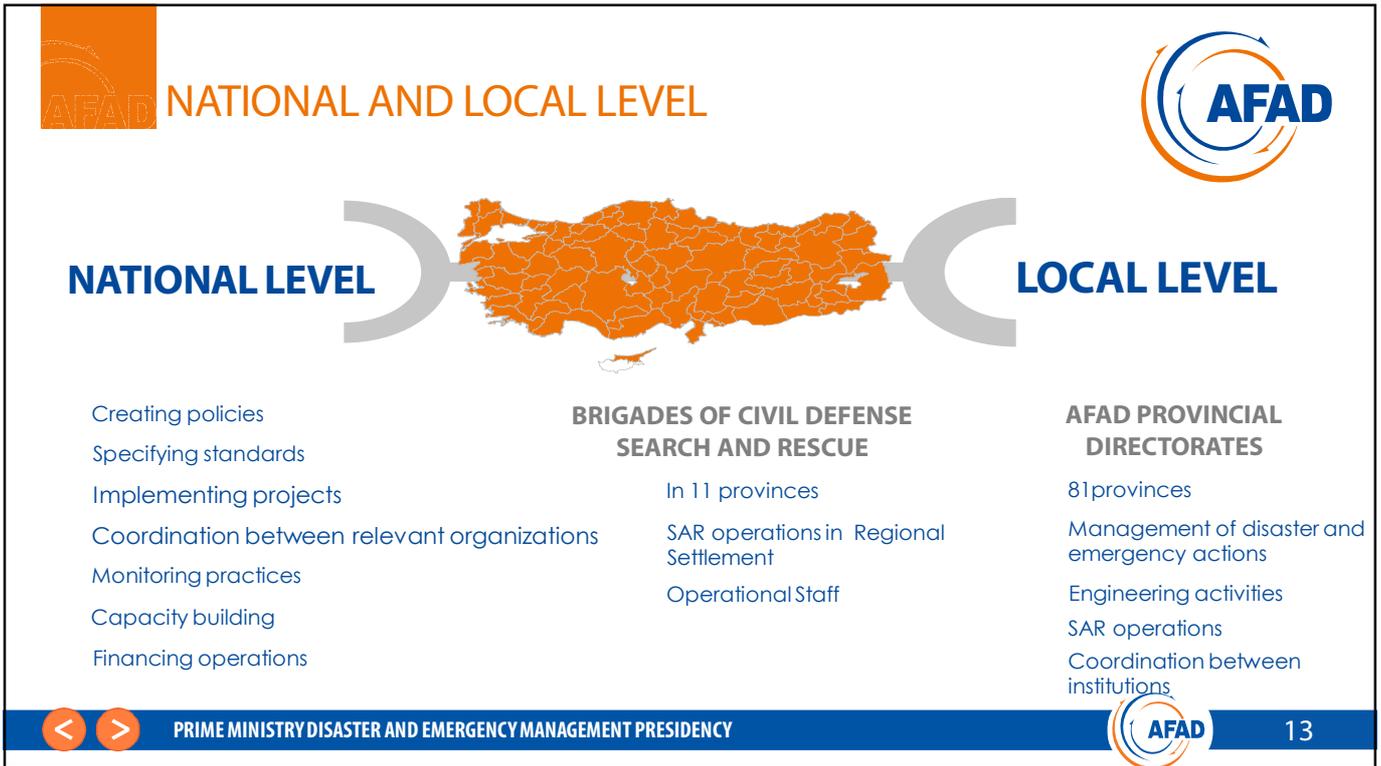


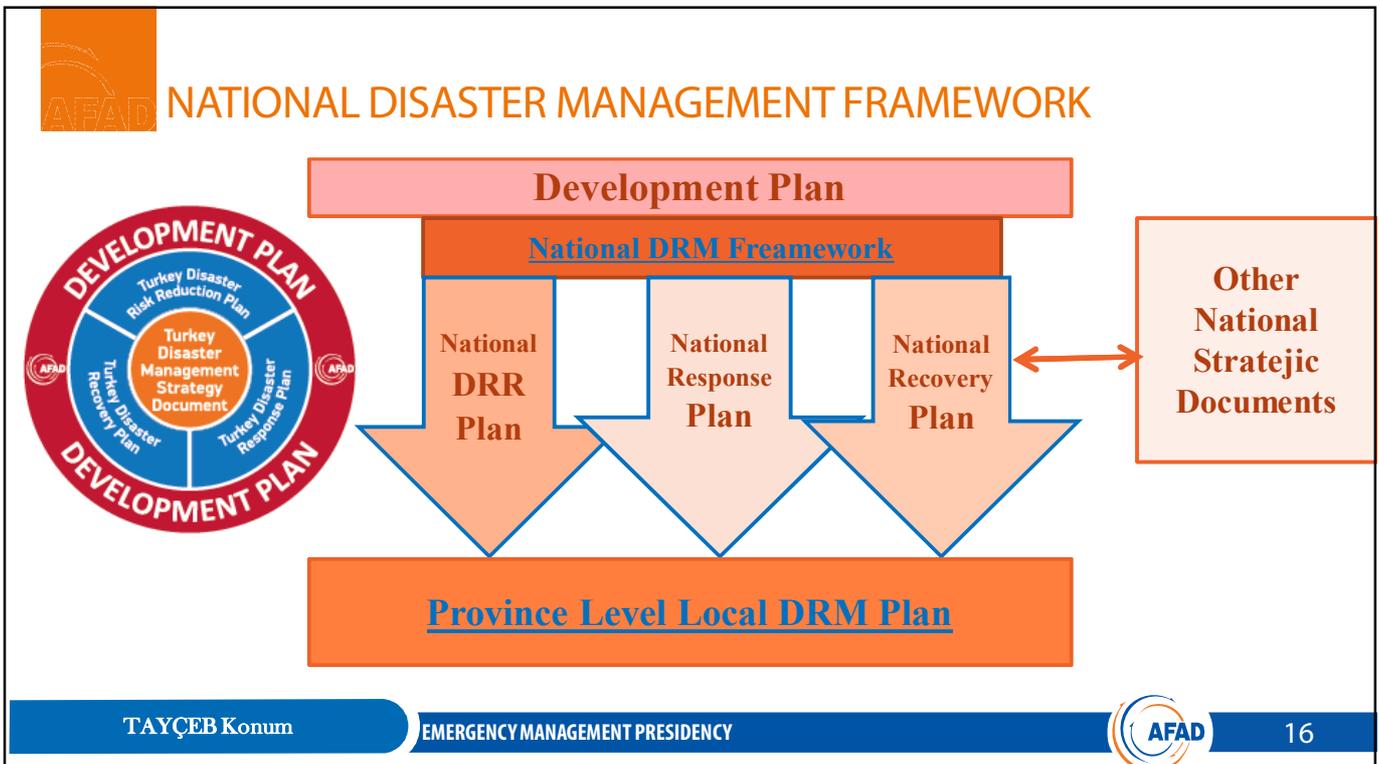
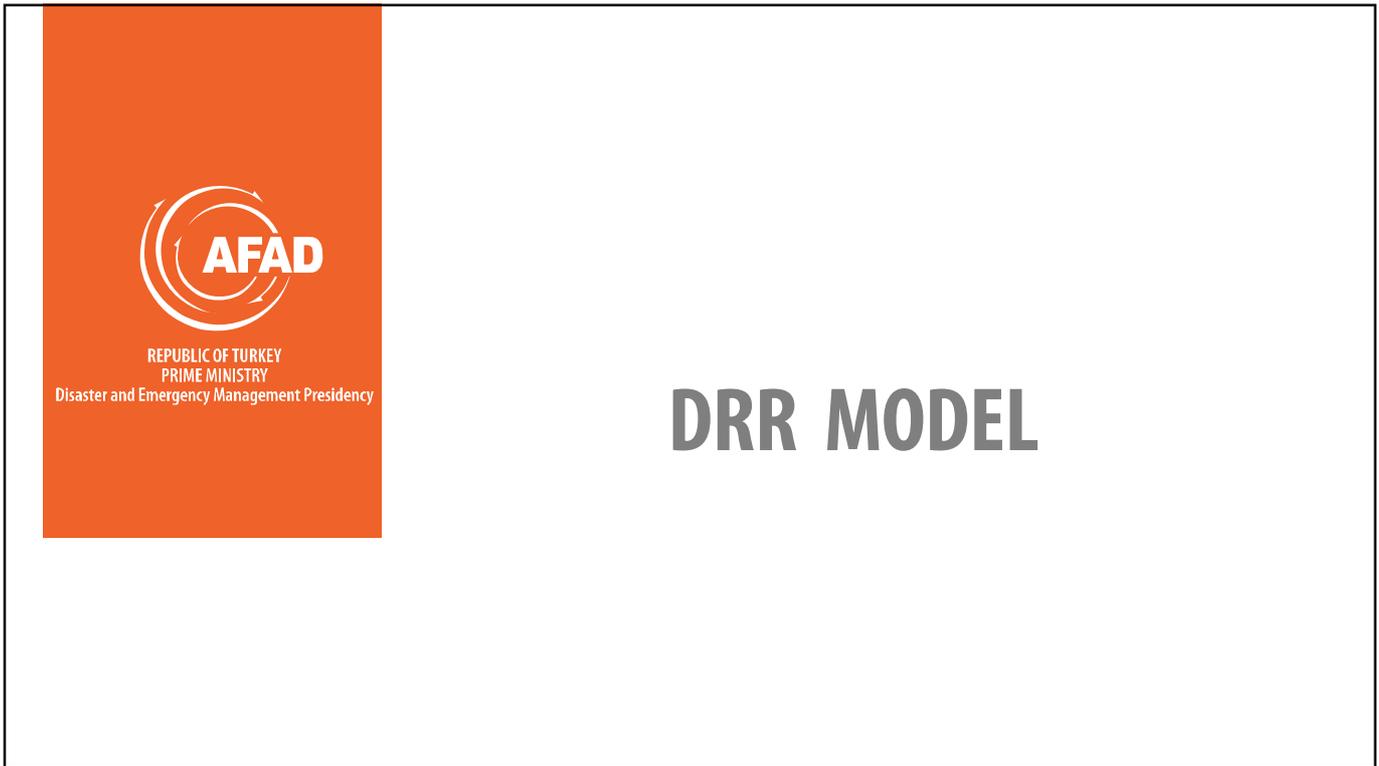
**Public Private Organizations
NGOs and
others**

**Provincial
Directorates of
Disaster and
Emergency
Management**

- ✓ All disaster management related organisations unified
- ✓ Effective coordination
- ✓ Efficient use of capacity and capability in disaster management
- ✓ Central authority to make policies, set standards, finance projects and disasters
- ✓ Local authorities to take responsibilities and manage disasters by their own
- ✓ Integration with stakeholders









NATIONAL DISASTER MANAGEMENT FRAMEWORK



NATIONAL DISASTER MANAGEMENT FRAMEWORK

LAWS AND REGULATIONS

Law No 5902 on the Organization Structure and Duties of the Disaster and Emergency Management Presidency

Law No. 7269 on Measures to be Taken Due to Disasters and Assistance to be Made due to disasters

Law No. 4123 on the Execution of Services for Damages Caused by a Natural Disaster

Law No. 7126 Civil Protection

Law No. 6305 Disaster Insurance

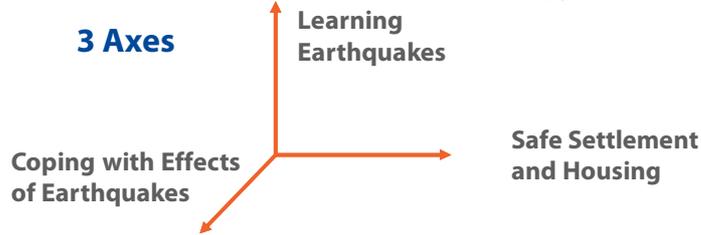
Law No. 6306 on the Transformation of Areas Under Disaster Risk





UDSEP

National Earthquake Strategy and Action Plan - UDSEP



Completed Actions:

- ✓ Disaster Insurance Law (Turkish Catastrophe Insurance Pool)
- ✓ Active Fault Map (Ministry of Energy and Natural Resources)
- ✓ Earthquake Research Program (AFAD)
- ✓ National Platform on Disaster Risk Reduction (AFAD)
- ✓ Integrated Disaster Hazard Maps (AFAD)



TURKEY NATIONAL DISASTER RESPONSE PLAN Operational Plans - TAMP





STRATEGIC DOCUMENTS ON DRR

Some documents have been prepared to prevent or reduce losses of natural disasters, especially earthquakes in our country. Some of these reports are as follows;

- ✓ Turkey National Union of Geodesy and Geophysics (TUJJB) National Earthquake Research Program (2000)
- ✓ Turkish Grand National Assembly (TBMM) Commission Report on Earthquake Research (2000)
- ✓ State Planning Agency of Turkey (DPT) Specialization Commission Report on Natural Disaster (2000)
- ✓ TUBITAK National Earthquake Council, National Earthquake Strategy Report (2002)
- ✓ Turkish Court of Accounts (TCA) Disaster Reports (2002)
- ✓ Turkey Economy Congress Earthquake Working Group Report (2004)
- ✓ Ministry of Public Works and Settlement Earthquake Forum Reports (2004)
- ✓ Natural Disaster Country Report, JICA (2004)
- ✓ TUBITAK National Earthquake Commission, National Earthquake Research Programme Report (2005)
- ✓ Science and Technology High Commission 11th Meeting Report (2005)
- ✓ Prime Ministry Inspection Board, Emergency and Disaster Management Review Report (2008)
- ✓ Ministry of Public Works and Settlement, Urbanization Forum Report
- ✓ Ministry of Agriculture and Rural Affairs Rural Development Plan (2010-2013)
- ✓ Integrated Urban Development Strategy and Action Plan (2010-2023)
- ✓ Turkish Grand National Assembly, Determination of Precautions to be Taken in Earthquake Management by Investigating Earthquake Risks Report of the Parliamentary Research Commission (2011)
- ✓ Union of Chambers of Turkish Engineers And Architects and related Union Reports (2000-2011)
- ✓ Prepared reports of International organization like UN, OECD, UNDP, etc.



PRIME MINISTRY DISASTER AND EMERGENCY MANAGEMENT PRESIDENCY



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DRR ACTIVITIES IN AFAD



TECHNOLOGICAL DISASTERS ROAD MAP DOCUMENTS

Within the scope of AFAD's capacity and duty, "Technological Disasters Guideline Document 2015 - 2023" has been prepared with the aim of the coordination of organizations and institutions and effective management of technological disasters.



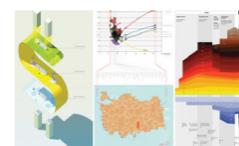
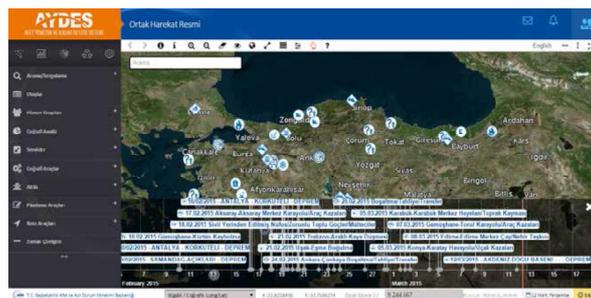
2014-2023
TECHNOLOGICAL DISASTERS
Roadmap Document

The road maps on,

- Industrial accidents,
- Mining and mining waste accidents,
- Nuclear and biological accidents
- Protection of critical infrastructure
- Transportation of hazardous materials accidents
- Accidents causing marine pollution
- Biosafety of genetically modified organisms
- Climate change and associated disasters, are prepared and published.



DISASTER MANAGEMENT AND DECISION SUPPORT SYSTEM (AYDES SOFTWARE)

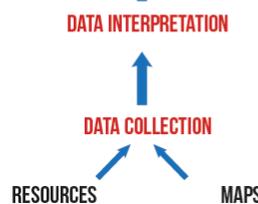


REPORT
RISK MODELLING SYSTEM



MODELING AND FORECAST
AFAD-RAPID EARTHQUAKE DAMAGE
CBRN DISSEMINATION SYSTEM

OBSERVATION
SATELLITES
AIRCRAFT
MOTOR VEHICLES
INSTITUTIONS (TAMP)

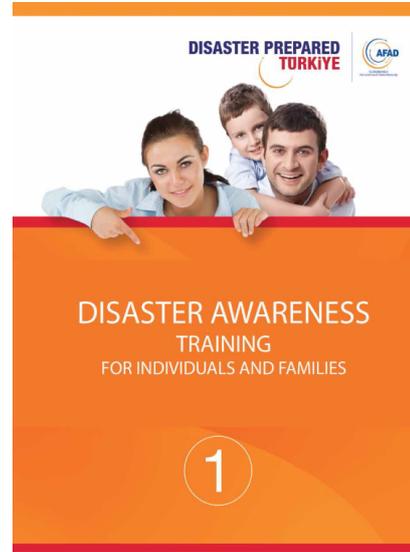


GIS BASED DATA





DISASTER - PREPARED TURKEY



ESTABLISHMENT OF HUMANITARIAN LOGISTICS WAREHOUSES



FOR RAPID AND EFFECTIVE RESPONSE TO EMERGENCIES

1652 WAREHOUSES

27 LOGISTICAL WAREHOUSES



PROJECTS

Mobile Disaster Training Centers

Turkey Disaster Data Center

Disaster Response Plan

Establishment of Humanitarian Logistics Warehouse Project

Enhancing the CBRN Capacity

Continuous and Secure Communication System

Accreditation System

AFAD Turkey Earthquake Data Center

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PROJECTS

AFAD Turkey Earthquake Data Center

Adequate Disaster Tents Tent Design and Creation of Stock

Observation, Mapping & Damage Assessment with Unmanned Air Vehicles

Capacity Building About Disaster Types Knowledge Expertise

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REPUBLIC OF TURKEY
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DRR ACTIVITIES IN TURKEY



RESTRUCTURING OF AREAS UNDER THE DISASTER RISKS

It is intended to create robust and safe residences based on international standards under the **law No. 6306** on “**Restructuring of Areas Under the Disaster Risks**” that aims to make cities and buildings resilient against disasters in Turkey. Within the scope of local administration reform that was put in force, municipalities have been authorized to make urban transformation.

The Regulation provides that the determination of **risky building**, which have been described as those within or outside the **risky areas** that have been decided in accordance with scientific and technical data to have completed their economic life or bear the risk of collapse or suffer from heavy damage.



**URBAN
TRANSFORMATION**
SAME TIME SOCIAL TRANSFORMATION





CLIMATE CHANGE ADAPTATION

Turkey has to tackle with problems such as desertification, hydro-meteorological disasters and rise of sea level. In accordance with the **National Climate Change Strategy Document (2020-2010)** and **within the framework of Turkey's Climate Change National Action Plan (2011-2023)**, work on climate change is in progress. These works are reported by means of United Nations Framework Convention on Climate Change annually.



CLIMATE CHANGE
STRATEGY
ACTION
ADAPTATION



ISTANBUL SEISMIC RISK MITIGATION AND PREPAREDNESS PROJECT (ISMEP)

Istanbul is the most vulnerable city because of its seismic-prone location nearby the North Anatolian Fault, and its high population and commercial/industrial densities. ISMEP is a significant attempt to implement essential principles of comprehensive disaster management financed by the World Bank. The main objectives are to improve the city of Istanbul's preparedness for a potential earthquake through enhancing the institutional and technical capacity for disaster management and emergency response, strengthening critical public facilities for earthquake resistance, and supporting measures for better enforcement of building codes and land use plans. In support to the promotion of commitments for safe schools, the Government of Turkey hosted the first meeting of the "Safe School Leaders" on 30-31 October 2014, Istanbul, Turkey



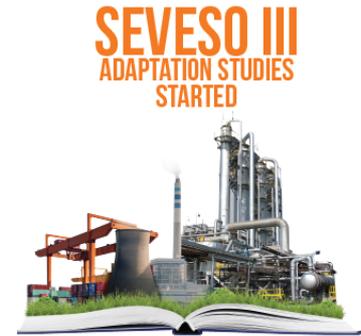
ISTANBUL IS WITH ISMEP STRONGER





MAJOR INDUSTRIAL ACCIDENTS ON CONTROL REGULATIONS

As known industrial activity due to the major industrial accident prevention, accident preparedness, in case of interference with the No of 96/82/EC hazardous materials that contain large risk is Risk Control of the European Union Council Directive (**Seveso II Directive**), our country's legislation to integrate environmental Seveso II Directive in Turkey and our Ministry of Environment and Urbanization Harmonization Project and the project was achieved as the Regulation on the "**Prevention of Major Industrial Accidents and Reducing Effects**" the Regulations were completed on December, 2013 and published. In this context, that in accordance with relevant provisions of the Act and in support of on going activities in all industrial facilities containing hazardous chemicals are required to report to the Ministry.



INSURANCE

Turkey introduced a requirement for earthquake insurance in 2000 and coverage is provided by the Turkish Natural Catastrophe Insurance Pool (DASK), set up under Law No 6305, which is an example of good practice. Additionally, DASK may cover disasters such as floods, storms, landslides, and hail and snow damage in the event of insurance companies failing to do so.

Insurance companies make use of risk scenarios. At present, insurance has 41 % penetration and there are 7.3 million policies. It is therefore recommended that further efforts be made to increase the penetration of compulsory earthquake insurance.

Another example of good practice in the field of insurance is the Agricultural Insurance Pool (TARSİM), which insures herbal and animal products against the consequences of hail, storm, flood, fire, landslides, tornadoes and frost. ata as provided in May 2016.





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THANK YOU FOR YOUR ATTENTION

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