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DISASTER PROFILE AND MANAGEMENT SYSTEM OF TURKEY

Asian Disaster Reduction Center - ADRC
09 September 2019 – Kobe/ JAPAN

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
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
Due to Earthquakes in Turkey in the Past 58 years

More than 400,000 Buildings Were Destroyed or Damaged
Each Year in Turkey Due to Earthquakes

Average

1,000 People Die
2,100 People are Injured

DRM MODEL
DEVELOPMENT OF DISASTER MANAGEMENT

1928
GD of Civil Defense
(Ministry of Interior)

1959
GD of Disaster Affairs
(Min. of Public Works and Settlement)

2000
GD of Turkey Emergency Management
(Prime Ministry / MoI)

Weaknesses:
- Several Institutions
- Lack of Effective and Efficient Coordination
- Focality on Crisis Management
- Lack of System Approach

TRANSFORMATION OF DISASTER MANAGEMENT

1928
GD of Civil Defense
(Ministry of Interior)

1959
GD of Natural Disasters
(Ministry of Public Works)

2000
GD of Emergency Management
(Prime Ministry)

MINISTRY OF INTERIOR

AFAD

BEFORE
- Several Institutions
- Lack of Effective and Efficient Coordination
- Crisis Management
- Lack of Systems Approach

AFTER
- One Institution Multi-Disciplinary Approach
- Effective and Efficient Coordination
- Risk Management
- Systems & Proactive Systematic Approach

AFAD

BY THE LAW NO 5902
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

- 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 and Local Level

National Level

- Creating policies
- Specifying standards
- Implementing projects
- Coordination between relevant organizations
- Monitoring practices
- Capacity building
- Financing operations

Local Level

Brigades of Civil Defense Search and Rescue

In 11 provinces
SAR operations in Regional Settlement
Operational Staff

AFAD Provincial Directorates

81 provinces
Management of disaster and emergency actions
Engineering activities
SAR operations
Coordination between institutions

Ministry of Interior/Minister

- Disaster and Emergency Supreme Board
- Disaster and Emergency Coordination Board
- President of AFAD
- Internal Control Unit
- Deputy President
- Legal Consultancy
- Press and Public Relations Consultancy
- Deputy President
- Planning and Mitigation Department
- Response Department
- Recovery Department
- Civil Defence Department
- Strategy Development Department
- Earthquake Department
- Administrative Services Department
- Information Technology and Communication Dep.
NATIONAL DISASTER MANAGEMENT FRAMEWORK

Development Plan

Other National Strategic Documents

National DRM Framework

National DRR Plan

National Response Plan

National Recovery Plan

Province Level Local DRM Plan
NATIONAL DISASTER MANAGEMENT FRAMEWORK

A strategic plan for disaster management system of Turkey

Determination of the roles of stakeholders in the area of disaster management system.

Integration of national risk reduction, preparedness, respond and recovery plans.

LAW 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

3 Axes

- Learning Earthquakes
- Coping with Effects of Earthquakes
- Safe Settlement and Housing

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 for 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 (TUJBJ) National Earthquake Research Programme
- Turkish Court of Accounts (TCA) Disaster Reports (2002)
- Ministry of Public Works and Settlement, Urbanization Forum Report
- Ministry of Agriculture and Rural Affairs Rural Development Plan (2010-2013)
- 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.
INTEGRATED DISASTER HAZARD MAPS

Turkey Disaster Database-TABB
- Reliable source of information
- User friendly website
- Useful modules
- Improvable software
- Sustainable system

Documentation Module

Analysis Module
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.

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)
DISASTER - PREPARED TURKEY

DISASTER PREPARED FAMILY

DISASTER PREPARED YOUTH

DISASTER PREPARED SCHOOL

DISASTER PREPARED WORKPLACE

PRIME MINISTRY DISASTER AND EMERGENCY MANAGEMENT PRESIDENCY

DISASTER PREPARED TURKYE

DISASTER AWARENESS TRAINING FOR INDIVIDUALS AND FAMILIES

1

PRIME MINISTRY DISASTER AND EMERGENCY MANAGEMENT PRESIDENCY

ESTABLISHMENT OF HUMANITARIAN LOGISTICS WAREHOUSES

FOR RAPID AND EFFECTIVE RESPONSE TO EMERGENCIES

1652 WAREHOUSES

27 LOGISTICAL WAREHOUSES

PRIME MINISTRY DISASTER AND EMERGENCY MANAGEMENT PRESIDENCY
PROJECTS

Mobile Disaster Training Centers

Turkey Disaster Data Center

Disaster Response Plan

Establishment of Humanitarian Logistics Warehouse Project

Enhancing the CBRN Capacity

AFAD Turkey Earthquake Data Center

Accreditation System

Continuous and Secure Communication System

AFAD Turkey Earthquake Data Center

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
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.
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.

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.
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 (TARSIM), which insures herbal and animal products against the consequences of hail, storm, flood, fire, landslides, tornadoes and frost. as provided in May 2016.
THANK YOU FOR YOUR ATTENTION

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