



AFAD BECOMES A WORLD BRAND

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Turkey, is located in one of the most seismically active regions in the world. Sixty six percent of Turkey's surface area lies top levels of seismic hazard, namely on zones 1 and 2 levels. From 1900 to date, 287 damaging earthquakes were reported in the country, leading to nearly 100,000 deaths while around 700,000 buildings were reported having major damages or totally destroyed.

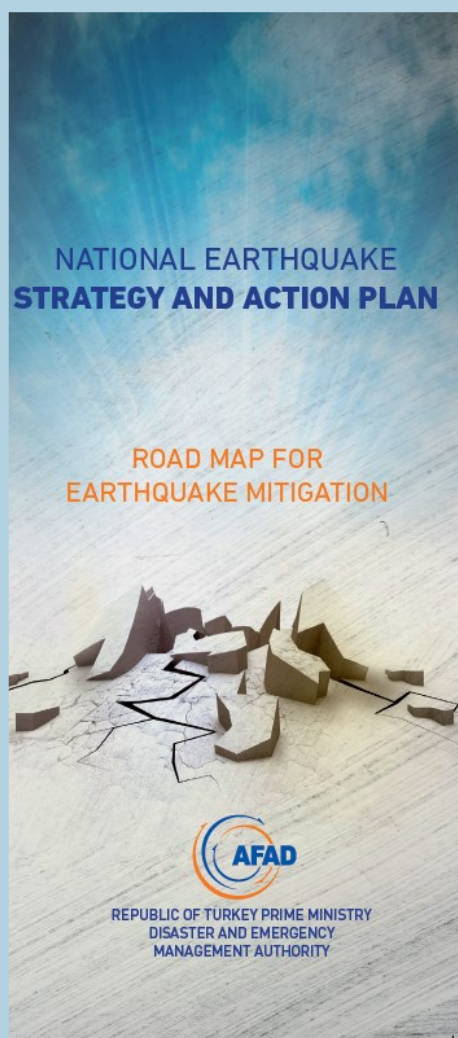
Urban and rural areas in Turkey are exposed to other natural hazards as well, mainly earthquake, landslides, floods, flash floods, rockfalls, avalanches and new hydro-meteorological hazards related to climate change that can easily turn to risks for costly disasters if physical, social, economic, and environmental vulnerabilities are not systematically reduced. In addition, together with the rapid urbanization and economic growth, more of people, assets and investments are exposed to hazards, increasing the disaster risks if not properly treated.

These conditions, along with a comprehensive approach for vulnerability and risk reduction, called for an effective reorganization of disaster management at national level, that had been handled through different public units in ministries for over fifty years. Within this framework, Prime Ministry Disaster and Emergency Management Authority (AFAD in Turkish) was established in 2009 as the authorized coordination agency to address all phases of disaster management in Turkey, based on the reorganization of institutional, scientific and practical knowledge and experience of long years.



With the establishment of AFAD in 2009, Turkey adopted a new model for disaster management. The model named as the "Integrated Disaster Management System" covers all stages of disaster, divines the necessary work for predetermination of disaster impacts, prevention of possible damages or reducing to the minimum, ensuring coordination and immediate response during disaster and recovery works after disaster with an integrated approach.

Disaster Management Framework Document of Turkey is prepared to enlighten the works for disaster management that will be performed by AFAD and its shareholders in the next 15 years. In this document, the emphasis on risk reduction and setting priorities. Therefore, both the lessons learned from disasters in the past and the current situation in modern disaster management, the pre-disaster works form a basis to reduce the likely damages arising from disasters to a minimum. A more systematic approach is required to evaluate hazards and risks and depending on these, more effective implementation of structural and non-structural measures and a spatial planning. Therefore, it is necessary to prepare and implement all plans in cooperation with all stakeholder institutions in order to identify disaster hazard and risks and to reduce the identified risks.

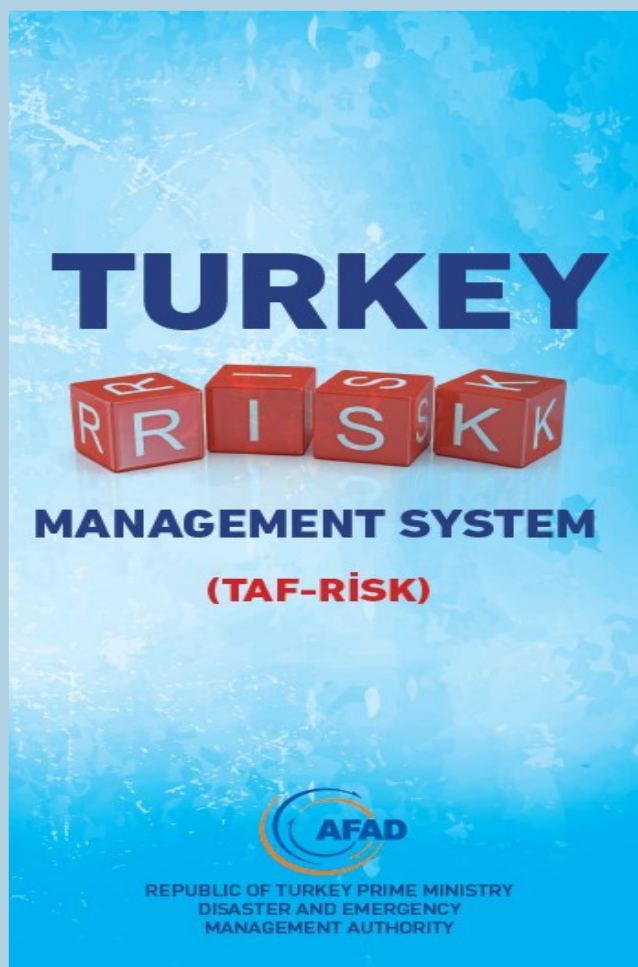


AFAD also generated national, local, sectoral and individual future plans ensuring sustainability of development process. For earthquakes the most deadly disaster type for Turkey, AFAD prepared comprehensive action plan for earthquake risk reduction covering all sections of society and assigning specific responsibilities to stakeholders. The principle objective of **National Earthquake Strategy and Action Plan (UDSEP-2023)** is to constitute earthquake-resistant, safe, well-prepared and sustainable settlements and to reduce physical economic, social and environmental impacts of earthquakes. To assist the actions stated in this plan, **National Earthquake Research Program** was also started. AFAD support studies of universities, non-governmental organizations and other organizations working on earthquake.



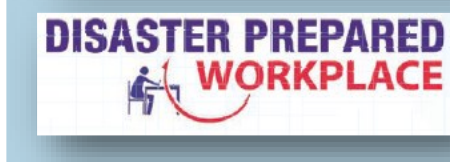
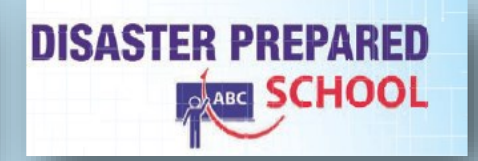
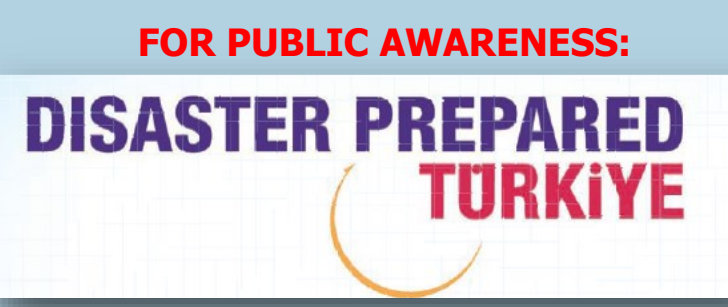
AFAD has developed the **Turkey Disaster Response Plan (TAMP)** which uses systematic, sustainable, information technology and advanced technology systems, such as satellite and aviation in one integrated system. With the coordination of TAMP and AFAD, together with other all ministries, central and local institutions and organizations, governorships, local governments and NGO's AFAD has created a structure that can act as a joint force of Turkey at the "Zero Moments" of disasters.

AFAD is establishing a "Data Base of Disaster Inventories for Turkey" to use for risk mapping and disaster risk reduction studies. With this database system, called **TABB**, any kind of information and document on disasters in Turkey are collected in a common platform. Every study on disaster, thesis from universities, reports, documents, photos and videos are collected. All these documents and data are open to all interested institutions, like universities, public organizations, nongovernmental organisations and individual researchers. TABB provides more than 40 thousand disaster inventory and disaster impact on all major and minor disasters occurred in Turkey.

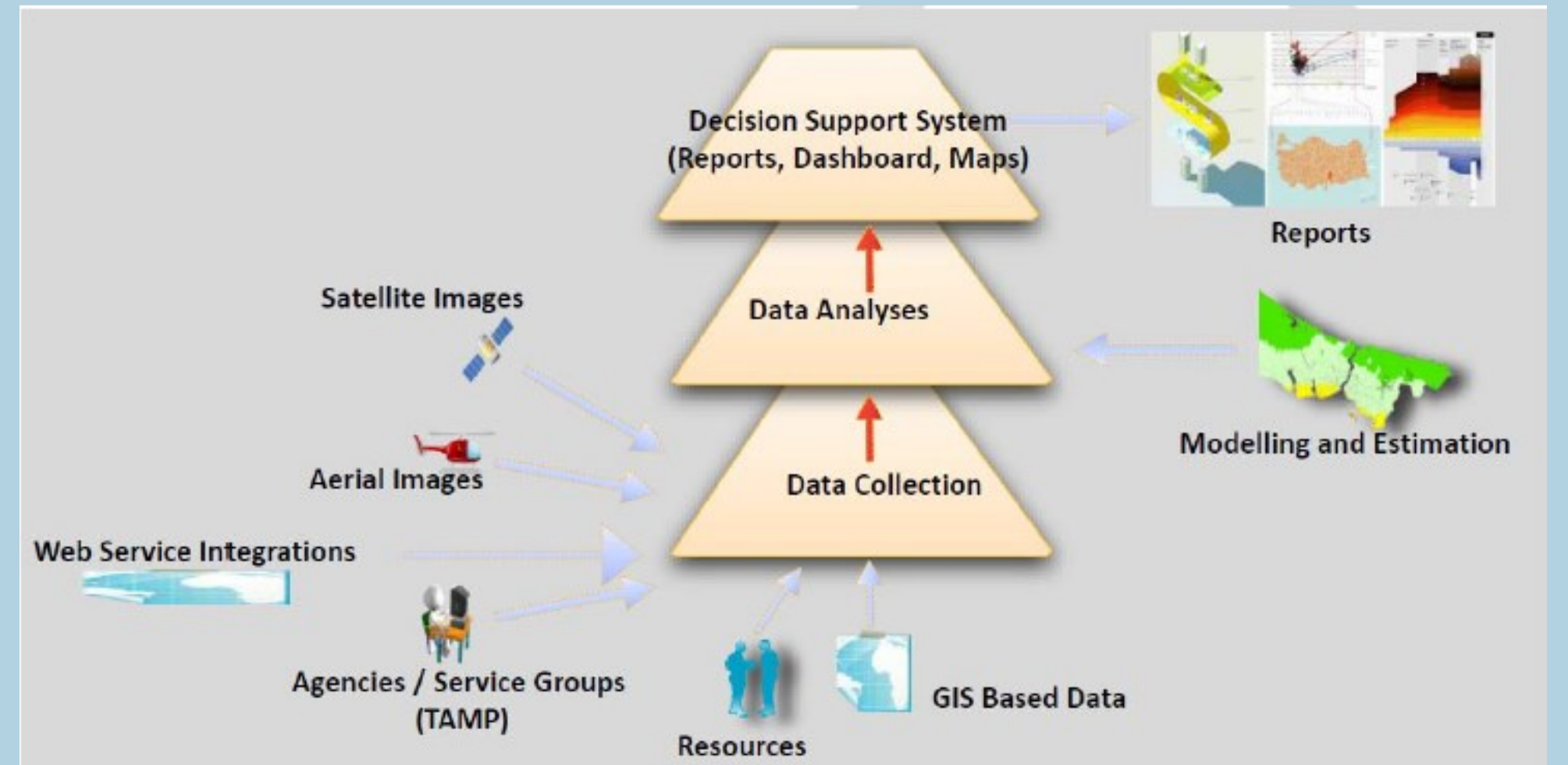


"**Turkey Disaster Risk Management System (TAF-RISK)**" project aim to build resilient society in Turkey to predict the risk. The purpose of this system is establish risk-centred integrated disaster management. As the output of this studies it can be estimated provincial disaster risk values and also mitigation and budget planning R&D activities can be carried out more effectively in advance.

TARAP project, which will be prepared together with all Ministries, institutions and organisations will put this vision into practice and establish a rational system which uses Turkey's sources more effectively. TARAP is a plan explaining **what, how, when, and by whom will be done, identifying the risks first of all, then prevent and minimize** by getting to know the disaster risks and by taking all the measures at once. TARAP bears the feature of dealing with all disaster occurred and potential disaster risks, including all central and local public institutions and organisations, private sector, academic organisations, nongovernmental organisations, media, all society from family to individuals as shareholder to a system and presenting legislation, technical regulations, capacity enhancement and implementation principles.



INFORMATION MANAGEMENT: The **Disaster Management and Decision Support System AYDES** is a system developed by AFAD for the integrated management of all stages of disasters. AYDES aims to provide a management model that entails the necessary information infrastructure and the decision support system needed to perform the planning, preparation, response and recovery processes for disaster and emergency management. AYDES is developed quite recently and needs further testing and implementation. The AYDES software enhances the capabilities of disaster managers to match demands and available resources. Also the service group resource management, led by AFAD, can manage additional resources from outside AFAD and even from outside Turkey. AYDES is clearly used for preparedness, response and recovery but it is still unclear in which way AYDES is used for prevention and mitigation activities. Moreover, the amount of data that will be generated during a response to a large scale disaster, impacting several provinces simultaneously is considerable. This demands a very strong information management



"**National Seismic Observation Network System**" operates continuously 24/7. Within the "National Seismic Observation Network Development (USAG)" Project, that was started by AFAD in 2013, 770 stations have been set up. Among these stations 525 are accelerometric stations measuring strong ground motion. Infrastructure systems and software are continuously renewed in order to improve the seismic

AFAD has been conducting **Project of Producing Integrated Disaster Hazard Maps** to prepare hazard maps which handle earthquake, landslide, rock fall, inundation and avalanche as a whole across Turkey. AFAD is producing integrated disaster hazard maps at a scale of 1/25,000 with the purpose of preventing landslides and alleviating damage that they cause. In that context, each provincial office collects data for an inventory comprising landslides which occurred within their respective area of responsibility and enters them in AYDES, AFAD's central database, and are also conducting sensitivity analyses in order to produce landslide hazard maps.

To ensure performing the necessary preparation and damage reduction activities, our studies are continuing. Identification of hazards, risks and vulnerability reduction activities are priorities of AFAD. "**Integrated Hazard Maps**" project is continuing out within this scope. This project aims to produce integrated multi-hazard maps, taking full account of importance of disaster preparedness. By 2014, the guidelines about principles for preparing hazard susceptibility maps regarding natural hazards like landslide, rock fall and avalanche are completed. With dissemination of guidelines country wide, a common hazard map will be produced by identifying disaster disaster proneness of all country until 2018. This goal in line with the perspective 2023 of our Country have importance to sustain our society in safe areas free from risk or where the risk is minimum.



AFAD aim to complete the systematic transformation in disaster management in Turkey together with all shareholders, institutions and organisations, private sector representatives and NGOs. Final goal is to **bring Turkey to a sustainable development model and entrust Turkey ready to disaster** to our children. With the projects and activities completed by AFAD in the recent years, Turkey has now one of the disaster management models, recognized as an "example" disaster management institution in the World.

