



## **THE 1999 MARMARA EARTHQUAKE CASE STUDY**

**Conducted by the Turkish Red Crescent Society**

**March 2006**

### **EXECUTIVE SUMMARY**

This case study was prepared by an academician group specializing in disasters in Turkey in consultation and in coordination with the experienced and competent staff of the Turkish Red Crescent, in order to evaluate the 1999 Marmara Earthquake from a critical point of view with respect to IDRL. It was essentially formulated in three parts, the first of which is an analysis of the legal framework of Turkey as applicable in the year 1999. The subsequent part of the study consists of a workshop conducted with all the parties involved in the 1999 disaster operation such as The Prime Ministry Crisis Management Center; as the supreme body of crisis management in the country, the Ministries, the Turkish Red Crescent's experienced staff and others. The final part pertains to a survey the working group conducted with the purpose of practically assessing the operations, views and evaluations of the national and the international parties involved in the 1999 disaster operation, with the use of quantitative data for the aim of supporting and strengthening the case study.

With regard to the fatal Marmara Earthquake itself, it struck the people of Turkey on 17th August 1999 during the early hours of the morning, with a magnitude of 7,4 affecting the whole of the Marmara region and its surrounding regions where 1/3 of the entire population; 65,000,000 people were resident. According to the official statistics declared by the State, 17.480 people died, 43.953 people were injured and 600.000 people were directly affected. Not only did victims lose their homes but many residential and commercial buildings were damaged to various extents by the Earthquake. The damage to the entire infrastructure in the region should also be borne in mind. Observers overwhelmingly agreed that this Earthquake was one of the most devastating disasters having taken place in the 20<sup>th</sup> century.

In the context of the disaster operation, there were a great many obstacles and problems, especially operational challenges, alongside the actual problem of dealing and coping with the needs of the victims and the vulnerable groups. Millions of victims awaited relief and assistance and more than 200 agencies nationally and internationally with thousands of humanitarian workers responded to the disaster. Unfortunately, under the circumstances of

the disaster, initial cross-matching the demand for relief and the supply for needs in a harmonious, efficient and effective way arose as a problem, which culminated in the serious structural and operational changes in the institutions responsible for disaster management in Turkey.

The workshop on the 1999 Earthquake was able to address the critical questions from the IDRL aspect. 5 questions were gathered under the subject headings of; customs, service provision and freedom of movement, logistics and emergency shelter and coordination. The participants were then grouped according to these subject headings. The topics were determined by the moderators during the workshops and each group made their presentation with regard to these topics at the final plenary meeting at the end of the day.

The major operational challenges faced by international actors responding to the 1999 disaster become evident with the survey. In terms of concrete examples; the waste of valuable time due to the bureaucratic process for the entry of equipment from abroad, the process of customs for communication equipment etc, the legal processes of other equipment and land vehicles caused a waste of time were given. There was no adequate needs assessment that could be used for correct and objective guidance by the international organizations, so as to avoid problems with the delivery of the relief materials. Apart from this, there were neither applicable response plans prepared in accordance with the current provisions of the legislation, nor were there educated personnel on the issue of disaster response. The inevitable result was that no liaison persons were specified for foreign relief teams. Relatively, efforts were made to learn the provisions of the legislation during the disaster.

Another problematic area was the coordination between all actors involved in the disaster response. The primary and crucial requirement for coordination; is communication. Unfortunately, efficient communication could not be ensured in the acute stage among the actors. Moreover, there was a lack of communication due to the limited number of personnel with knowledge of a foreign language, which would have facilitated the work of international workers.

There were problems with transit permits, visas, protective health measures, transportation and foreign language. Even though the international actors faced many challenges, they managed to avoid issues that may have arisen with concern to the nature, rules and religious beliefs of the national culture, as they were informed accordingly.

Significant challenges concerning the coordination and regulation of international response were common and applicable to both international and national actors as a whole. The first outstanding challenge, was the lack of knowledge on the legislation and regulations on disaster management in the country. Meanwhile, there were no guidelines stating the duties and authorizations and there was no process of sharing with coordinated persons and institutions (for further details and information, please refer to parts 3 and 4 of the case study). The biggest challenge for domestic actors in response to the disaster in its aftermath, was how to coordinate the initiate the response all the parties.

The legislative weaknesses in the Turkish legal system regarding disaster management, led to the creation of many complexities. During the acute stages, the absence of legal regulations regarding transactions concerning lodgings and consumption, authorization of response personnel and lack of legal regulations for legal responsibilities encompassing all

kinds of activities arising from verbal instructions and initiatives, posed challenges for all actors. The issuance of a regulation regarding transactions carried out by relief response personnel during disaster response, surfaced as a practical challenge. Possible problems concerning the official appointments of personnel were not determined clearly by regulations. In other words, personnel should be appointed in accordance with the criteria of duty, rather than vice-versa. There was an immediate need for the preparation of a legal basis in order to create harmony between national and international legislations on disaster management. Another challenge that surfaced, was realizing the public's expectations as to how the disaster should be managed, which did not coincide with the reality. Such expectations arose from the evident lack of public knowledge of legal procedures and enforcements on disaster management.

The 1999 disaster operations and problems that occurred in the aftermath, culminated in the serious legal, structural and operational changes in the institutions responsible for disaster management in the country. In this respect, the 1999-Marmara Earthquake provided a sound basis for many improvements both at a national and international level. The outstanding aspects of the mentioned improvements can be listed as follows:

- The TRCS initiated its restructuring process following the 1999-Marmara Earthquake. In this respect, AFOM (Disaster Operation Center), regional and local disaster response and logistic centers were established; stocks were renewed and stock standards were increased. Technological developments were provided (data processing network at its Headquarters was established; modern standards were achieved with communication tools); in-service trainings directly concerning the TRCS's areas of work were provided and personnel participated in the international trainings used as a tool in disaster response. A modern approach was adopted in human resources management with the initiation of The Institutional Resource Planning Project (ERP) and branch development was brought to the forefront.
- Certain problems and obstacles determined as having been derived from the legislation were solved and certain deficiencies were addressed.
- Every institution initiated its own planning regarding the problems experienced in disaster response.
- Importance began to be attached to risk reduction.
- Disaster trainings increased
- Individualism was brought to the forefront in disaster management.
- The number of non-governmental organizations (NGOs) increased.
- The new Code on Special Provincial Administration, the Code on Metropolitan Municipalities and the Code for Municipalities, determined new duties regarding disasters for these institutions
- Plans for the cooperation of the civilian authority and the military authority were developed.
- The Earthquake Council was held in 2004.
- The Code for the Strengthening of Buildings and the construction control system were developed
- Housing standards were developed

- TAY was established
- Search and rescue teams were established in 11 provinces
- The Ministry of Health initiated the restructuring of disaster response (eg. national medical rescue teams)
- Reception centers were established at the airports; the Turkish Armed Forces (TSK), civilian authorities and officials from the TRCS established themselves there and directed the incoming groups.
- The Turkish Search and Rescue Regulation was prepared by the General Directorate of Civil Defense (it should be prepared by the Ministry of Defense in the events of disasters, accidents, etc.)
- Certain coordination problems were resolved in the field with directions of the search and rescue service of provincial crisis centers.
- A Study was initiated in order to determine damage determination criteria.
- The relevant legislation was taken into consideration and crisis centers were regulated on a 24- hours basis.
- Acceptance of relief materials began to be controlled
- The Public was informed through the media on the type of relief materials to be donated
- A Protocol was recently made with 104 Search and Rescue Teams
- Cooperation was established with the Association of Amateur Radio Broadcasters.
- Central Administration brought a new dimension to the Decrees no: 583 and 600 but its infrastructure and regulation has still yet to be prepared

As a result of the study, as well as the literature screening, workshop and survey which was conducted with representatives of domestic and foreign relief personnel who participated in rapid response operations for the 1999 Earthquake, it became possible to contact groups that experienced general problems concerning the process of response and thereby receive suggestions and information that will contribute to the formation of immediate, efficiently equipped disaster response systems and relief teams in conjunction with the development of IDRL that may be applicable for possible future disasters response operations.

Suggestions submitted for the specified subject areas of; customs, service provision and freedom of movement, logistics/urgent shelter and coordination can be found in the case study (pp.51 – 54).

As a conclusion of the 1999 Earthquake case study of and its level of disaster management level, it is possible to make the following the general suggestions:

- As an integral part of the study, a survey was sent to the representatives of international relief organizations who participated in the disaster operation of the 1999-Marmara Earthquake. Although a total of 104 institutions actually participated in the disaster operation and efforts were made to contact 44 international and 23 national organizations through the survey, only 2 surveys were returned from the mentioned international organizations and 15 from the national organizations. This can be considered as an indication of interest/indifference in the matter. Besides which, such organizations as the World Bank that have important roles to fulfill in

international disaster relief, left the survey unanswered on the grounds that “they could not establish contact with their personnel working during the year 1999”, this is a clear illustration of the “lack of organizational memory,” when indeed one of the most important aspects of international relief work is reporting.

Reports particularly about the work of institutions and personnel working in the disaster response area and for the disaster, should be kept regularly. Sources of general problems about the functioning of the system, suggestions for solutions and successful examples will be able to be shared and generated in this way.

- As part of improving the current system of disaster management in our country, the TRCS’s disaster management and the applicability of the model in which local managements preferentially take place, developed in relation with the disaster response process in disaster response operations should be increased.
- Tax exemption provisions should be rearranged.
- Disaster legislation implementation should be centralised and coordinated from that central body.
- The TRCS should have priority and it should be exempt from the Special Consumption Tax (ÖTV) and Value Added Tax (KDV).
- The Turkish Red Crescent Law should be enacted rapidly.
- The relief donated following the disaster operation should be considered as exempt from the tax.
- Certain applications by the Turkish Government arrangements have reduced the income of the TRCS and thereby decreased the institution’s financial capacity. Therefore searches for new and alternative resources should be made.

In spite of all the recoveries and improvements following the 1999-Marmara Earthquake, there are still certain problems which need to be resolved and certain integrated approaches which should be brought to disaster legislation and disaster response operations encompassing public and private institutions, non-governmental organizations (NGOs) and international organizations. In this respect, it is of great importance that certain applications in relation to international response operations are put forth by States and a legal system from which they may benefit is developed, which in turn will maximize the benefit received by the victims of any future disasters.