

INFORMATION DOCUMENT ON DISASTER MANAGEMENT PRINCIPLES FOR THE REDUCTION OF DISASTER RISKS FOR SUSTAINABLE DEVELOPMENT



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1. SUSTAINABLE DEVELOPMENT AND DISASTER MANAGEMENT

Sustainable Development is "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (UN Brundtland Commission 1987). The basic elements for sustainable development are economic growth, social inclusion and environmental protection. It is essential to harmonize these interrelated elements for the well-being of individuals and societies. Elimination of poverty in all its dimensions is an indispensable requirement of sustainable development. In this context, sustainable development can only be achieved as a result of efforts to ensure inclusive and equitable economic growth and equal opportunities for all individuals, raise living standards above the basic subsistence level, support equitable and inclusive social development, and develop sustainable strategies for the management of natural resources.

1.1. Sustainable Development Goals

The Sustainable Development Goals are a universal call to action to end poverty around the world, protect our planet and improve the lives and futures of all individuals. Sustainable Development Goals, adopted by UN Member States in 2015, have been defined under 17 headings as part of the 2030 Agenda for Sustainable Development, to be realized within the framework of a 15-year plan: end poverty, end hunger, health and quality life, quality education, gender equality, clean water and sanitation, accessible and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduction of inequalities, sustainable cities and communities, responsible production and consumption, climate action, life in water, life on land, peace, justice and strong institutions, partnerships for purposes.

1.2. The Relationship Between Sustainable Development and Disasters

When the relationship between sustainable development and disasters is examined, as a positive effect, as sustainable development increases, vulnerability to disasters also decreases. A second positive aspect is that disasters can create new opportunities for sustainable development. Because the factors that cause the damage to increase in disasters can be eliminated by making good use of these opportunities (For example, reducing or eliminating risks by arranging reconstruction programs). There is a statement in the reports of the United Nations that supports this view. It is said that "disasters create economic changes. These changes are made faster than what happens under normal conditions. This collectivism brings an activity that cannot be underestimated."



On the other hand, there are of course negative aspects of the relationship between sustainable development and disasters. Investments may slow down or stop as a result of the psychological pressure on the private sector. This can result in significant resource losses and set development initiatives back. For this reason, it is essential to manage and minimize the effects of disasters before, during and after disasters in order to support the main objectives of sustainable development. In order to reduce the effects with these requirements, first of all, it is necessary to classify disasters, then to examine the causes of their occurrence and to put forward the measures to be taken from decision makers to citizens and NGOs.

2. DISASTERS

When natural disasters around the world are considered, it is seen that 28 of 31 natural disasters are formed by meteorological disasters. The types and order of importance of natural disasters also vary from country to country. For example, natural disasters in the Mediterranean Region are drought, floods, forest fires, landslides, hailstorms, avalanches and frosts. In our country, the most common meteorological disasters are hail, floods, floods, forest fires, drought, heavy rain, strong wind, lightning, avalanche, snow and storms (MMO, 1999).

3. DISASTER TYPES

A- Natural disasters

Slowly developing natural disasters

- Severe cold
- Drought
- Famine etc.

Sudden Natural DisastersDeprem

- Floods,
- Landslides, Rockfalls
- Avalanche
- Storms, Tornadoes
- Volcanoes, Fires etc.



B- Human Caused Disasters

- Nuclear, biological, chemical accidents
- Transport accidents
- industrial accidents
- Accidents caused by overcrowding
- Immigrants and displaced persons etc.

4. THE REALITY OF EARTHQUAKE AS A NATURAL DISASTER

4.1. Earthquake

It is the shaking of the earth's surface due to a sudden release of energy in the earth's crust. As a result, seismic waves (also known as S waves) are created. The seismic activities in a region determine the type and intensity of the earthquake.

4.2. What Causes an Earthquake?

Earthquakes occur due to sudden tectonic movements in the earth's crust. When tectonic plates slide over each other, it causes earthquakes and volcanoes. These disturbances cause vibrations that radiate in all directions. Because there is a relative movement of these plates, stress occurs, which breaks down releasing stored energy known as shock waves.

4.3. What are the Effects of the Earthquake?

- Ground shaking: Surface waves near the epicenter of the earthquake are responsible. The intensity of ground shaking depends on the duration, local geology, and distance.
- casualties.
- Damages to man-made structures.
- Fire and spillage of hazardous chemicals.

5. DISASTER PREPAREDNESS

5.1. Pre-Disaster Actions on the Basis of Public Authority

Disaster and disaster situations that cause human, physical, economic and social losses are one of the issues that state administrations should prioritize. The planning made before the disaster, the calculation of the foreseen risks and the creation of crisis scenarios directly affect every stage of the response during the disaster and accelerate the post-disaster reconstruction process.



The pre-disaster stage is considered as the disaster preparedness stage and the obligations of the public authority at this stage can be summarized as follows:

- Calculation of possible risks,
- Creating scenarios and preparing risk reduction plans in order to detect the damages that may occur after the disaster,
- Establishment of crisis management centers in regions at risk of disaster,
- Ensuring cooperation and coordination between relevant institutions and organizations within the framework of risk reduction measures.

With the risk management plans to be prepared before the disaster, it is aimed to intervene in a timely manner, with the most appropriate methods and tools, in an organized manner, to the negativities that may be encountered in the event of a possible disaster. In this context, it is important to determine, share and organize authorities and responsibilities at the time of disaster.

The training of disaster response units, the provision of technical equipment and the completion of their maintenance, the establishment of early warning systems, the updating and development of the plans made in accordance with the conditions of the day, the creation of disaster scenarios to determine the framework to be followed in the interventions constitute the components of pre-disaster management.

In the preparation stage for disasters and emergencies, the Disaster and Emergency Management Presidency (AFAD) within the body of the Ministry of Interior of the Republic of Turkey is an administrative public unit responsible for determining risk factors and planning the measures to be taken in case of disasters and emergencies. Turkey Disaster Response Plan (TAMP) was prepared and put into effect by AFAD in the light of the evaluations made with the ministries, institutions and organizations that will take charge in disasters and emergencies.

5.2. Humanitarian Aid Logistics in Pre-Disaster Preparedness in the Meaning of Social and Economic Dimensions of Sustainability

The logistics of humanitarian aid materials in disaster and emergency situations is called Humanitarian Logistics. Disasters are divided into two groups as follows:



1. NATURAL DISASTERS

- Slow Developing Natural Disasters (severe cold, drought, famine, etc.)
- Sudden Natural Disasters (earthquakes, floods, landslides, rockfalls, avalanches, storms, tornadoes, volcanoes, forest fires, tsunami, etc.)

2. NON-NATURAL DISASTERS (nuclear, biological, technological, chemical, war, accident, fire, etc.)

Disasters; It is also classified as Climatic, Geological, Biological, Social and Technological Disasters. Different types of disasters will require different disaster logistics studies. For example, logistics studies for disasters originating from Chemical Biological Radiation and Nuclear (CBRN) are highly specialized studies. In this context, first of all, the training of the personnel and the provision of appropriate equipment and materials are required. In terms of efficient use of resources, a common disaster logistics plan should be established that takes into account different types of disasters. The disaster logistics plan should be in a hierarchical structure in the form of country, region, province, district, neighborhood and building/facility, should be integrated with each other and tested with simulation studies. It is important to carry out trainings and exercises within the framework of the tested plans. The earthquake is a type of sudden geological natural disaster.

What is important in humanitarian aid logistics;

- The Right Material,
- To the Right Person,
- Right Amount,
- Right Quality,
- At the Right Time and
- It can be delivered to the right place.

The term "Correct Cost", which is in the seven lines of logistics, is not particularly relevant in humanitarian aid logistics applied in the event of a disaster. Humanitarian Aid Logistics; disaster management should be implemented in parallel with the stages of preparation (predisaster), response (during the disaster), recovery and reconstruction (post-disaster). The activities that should be carried out in the preparation phase before the disaster within the scope of humanitarian aid logistics are listed below.



- Disasters and emergencies are diverse. In this framework, it is necessary to calculate the risks and their severity, which constitute the values to be lost according to the probability of danger, on the basis of country, region, city and district, on the basis of dynamic scenarios, and the uncertainties should be made as specific as possible.
- Relief materials (search-rescue, shelter, nutrition, health, etc.) should be standardized as much as possible, supply sources, supply methods and durations should be determined.
- Realization of disaster logistics from a supply chain point of view, creation of a pullbased supply chain (supply network) as much as possible to ensure the distribution of relief materials at the required point, at the required time and amount through temporary distribution centers close to the points of need, the real need to be determined quickly and procured from the appropriate supply sources, disaster It is necessary to determine which material will be fed to the regions from which warehouse in which order. These storage locations need to be determined in advance in the most appropriate way for all possible disaster types in the country. The durability and usability of the materials in these warehouses, especially health and food products, should be constantly checked.
- It is necessary to determine the location, characteristics (physical conditions) and sizes of the warehouses according to the characteristics and quantities of the aid materials that will be needed with a mathematical model, and care should be taken to ensure that the warehouses are in places that will not be affected by the disaster and that the response speed to the disaster will be at the highest level.
- To the disaster area; there should be no complications caused by everyone sending all kinds of help. Your aids; First of all, a donation and resource management system should be established for collecting, sorting and sending in certain warehouses in a certain order according to the needs. The collection, sorting, inspection, storage, transportation and distribution of international and domestic aid in kind after a disaster is a process that needs to be well planned. This process needs a centralized management. Doing this work on the basis of Non-Governmental Organizations (NGOs) and individuals unaware of each other will cause the aid materials to be found extra in some distribution areas and not at all in some places, hindering the storage, distribution, loading-unloading works, and perhaps there will be no place to be stored. Therefore, aid materials should be collected on a provincial and district basis, inspected at the point of collection, sorted, labeled, entered into a stock control system that can be seen from the center, the demands of disaster areas should be processed into this system, and transportation and



distribution should be carried out with a fast planning. Therefore, there is a need for a multi-location inventory management software with highly dynamic, risk-based demand planning features. This software must be supported by automated data collection systems.

- The preservation and distribution of aid materials in the disaster area is another important point. It is necessary to determine the unloading and storage places of the materials arriving before the disaster, to determine the distribution points and system (central and decentralized), to give materials to those in real need, and to avoid repeated distribution. Some of the materials are dangerous (flammable, combustible and explosive) materials, some materials are in the cold chain (frosty, cold and cool) and these are the features that should be considered when installing the systems in question. Therefore, warehouse diversification or the storage of different materials in the same warehouse are issues that need to be decided.
- ccording to the characteristics of the region, the road, rail, air and seaway options should be formed in a way to back each other up, the use of special purpose transportation vehicles (such as helicopters) according to the characteristics of the region, the monitoring of operations, vehicles, containers and durable consumer goods, and taking quick measures in case of unforeseen developments. Common communication standards, common help requirement portal, geographic information systems and wireless information technologies should be used as much as possible, and the problems in this chain should be resolved first.
- The integration of the early warning system with the logistics system should be ensured.
- Evacuation of disaster victims is a logistical process in itself. At this point, it is necessary to take their preferences about where the victims will be gathered, the point where they will be evacuated, the personnel to be involved in the evacuation must be determined, these personnel should preferably be from other provinces, where the victims will be brought together with the evacuation personnel, to which provinces by which vehicles the victims will be transported, and temporary resettlement in these provinces should be planned.
- Security should be ensured in the damaged areas with warehouses and transportations, taking into account the socio-economic and cultural characteristics of the region.
- Effective use, communication and coordination of manpower and infrastructure resources in and outside the region, establishment of accredited organizations and expert



logistics teams according to the activities to be carried out, development of the management system of receiving support from the logistics sector according to their expertise (cold chain, food, waste, rubble, micro distribution, etc.), coordination between logistics teams should be ensured.

- The logistics villages/centers being established should be designed and licensed in terms of Humanitarian Aid Logistics, and a disaster logistics infrastructure should be established within these centers.
- Housing, Garbage Collection, Disinfection, etc. The standards should be determined according to the characteristics of the region.
- All statistical data on disaster logistics must be collected and retained for evaluation.

5.3. Pre-Disaster Personal Preparations

Disasters are emergencies caused by natural or man-made events and can occur at any time. Preparations you can take before a disaster may include:

- Prepare an emergency kit: An emergency kit is a bag containing essential items to assist you during a disaster. This bag should contain food, drink, medicine, blankets, waterproof clothing, a rechargeable battery or generator, a map and other important documents. You should also keep the first aid kit in your emergency kit as well as the essentials you may need for a few days.
- Stock up on water and food at home: Food and water supplies may be limited during disasters. Therefore, you should stock up on water and food for a few days in your home. It is important to regularly check and update the dates of foods.
- 3. Identifying a safe location: Being in a safe place during a disaster is vital. Identify a safe place at home or nearby where you can seek shelter during a disaster. This place must be strong enough not to be affected by disasters such as earthquake, flood or fire.
- 4. Create an emergency plan: A contingency plan is a plan you can create with your family or housemates. The plan should include instructions on what to do during a disaster and information on where everyone will go.



- 5. Reviewing insurance policies: Disasters can cause financial losses. Review your insurance policies and make sure your policy provides coverage for disasters.
- 6. Save emergency numbers: Record and keep emergency numbers, local fire, police and ambulance numbers accessible.

These measures are some preparations you can make before a disaster. These are essential steps to help you and your loved ones during a disaster.

5.4. What to Do in the Time of Disaster

A. Disaster response activities typically include:

- 1. Fast damage detection.
- 2. Search and rescue.
- 3. Emergency medical care.
- 4. Evacuation, protection of life and property.
- 5. Fire fighting.
- 6. Emergency communication.
- 7. Quick decision making in times of crisis.
- 8. Emergency restoration of essential services.
- 9. Providing emergency shelter for victims.

10. Debris removal (also associated with recovery).

11. Other activities carried out during the post-disaster emergency period (Psychological support, etc.).

Disaster response also includes the implementation of disaster preparedness plans and procedures, thus overlapping with disaster preparedness. Response activities address the need to deal both with the demands of the event (i.e. problems directly created by the disaster agent himself, such as injuries and physical damage) and the challenges arising from the response (ie, the need for rapid due diligence and information).



B. Specific activities related to earthquake emergency response:

1. Early Warning – Early warning refers to arrangements for the rapid dissemination of information on quake action threats close to government officials, institutions, and the broad population of areas at immediate risk.

2. Evacuation – Evacuation involves relocating a population from areas at risk of an imminent disaster to a safer location, especially if structures are susceptible to damage from aftershocks.

3. Search and rescue – Search and rescue is the process of locating disaster victims who may be stranded or isolated and bringing them to safety and medical assistance. After earthquakes, search and rescue activities focus on locating people trapped and injured in collapsed buildings and structures.

4. Post-disaster assessment – The primary purpose of the assessment is to provide a clear and concise picture of the post-disaster situation, identify assistance needs and develop strategies for recovery. It determines humanitarian options, how best to use available resources, or how to develop requests for further assistance.

5. Emergency aid - Emergency aid is, on a humanitarian basis, the provision of financial assistance and emergency medical care necessary to save and sustain human life. It also enables families to meet their basic needs such as medical and health care, shelter, clothing, water and food (including food preparation tools). Relief materials or services are usually provided free of charge within days or weeks of a sudden disaster.

6. Logistics and supply – Providing emergency assistance will require logistics facilities and capacity. A well-organized supply service is essential for sourcing or donating, storing and shipping relief supplies for distribution to victims.

7. Communication and information management – All of the above activities depend on communication. There are two main aspects of communication in disasters. Focus on equipment necessary for the flow of information, such as radios, telephones and their support systems, satellites and transmission lines. Knowledge management, that is, the development of a protocol for knowing who transmits what information to whom, what priority is given to it, how it is disseminated and interpreted.

8. Survivor response – In the rush of planning and running a relief operation, it is easy to overlook the true needs and resources of survivors.



9. Safety – Safety is not always a top priority after sudden natural disasters. Typically, it is handled by the civil defense or police departments.

10. Emergency operations management – None of the above activities can be implemented without some degree of emergency operations management. Policies and procedures for management requirements need to be established long before the disaster.

11. Rehabilitation and reconstruction – Rehabilitation and reconstruction complement the disaster response activities and merge with the recovery phase.

5.5. Personal Actions After a Disaster

If you are in a closed area;

- Be sure of your own safety first.
- Then check to see if there is anyone around you that you can help.
- Fires after earthquakes are quite common secondary disasters. Therefore, if you smell gas, turn off the gas valve. Open windows and doors. Leave the building immediately.
- Clean up spills of hazardous materials.
- Put the dislodged telephone handsets on top of the phone.
- Take your emergency bag with you, move towards your neighborhood meeting point.
- Listen to the warnings to be given to you by mass media such as radio and television.
- Leave avenues and streets empty for emergency vehicles.
- After every major earthquake, there are always aftershocks. Aftershocks become infrequent and decrease in size over time. Aftershocks can cause damage to damaged buildings. For this reason, damaged buildings should not be entered until the tremors are completely over. During aftershocks, what should be done in the main earthquake should be done.

If you are in the open area;

- Make a note of them, paying attention to the damage around you.
- Stay away from damaged buildings and power lines.
- First, help those in your immediate area who need immediate help.
- Then go to your neighborhood assembly point.
- Get involved in charity work. Help victims who need special attention the elderly, babies, pregnant women, disabled people.



If You Are Trapped Under Ruins;

- Check your status without panicking.
- If your mobility is restricted, do not attempt movements that will risk your life for exit. Please know that rescue teams will try to reach you as soon as possible.
- Keep your movements under control to use your energy in the most efficient way.
- If you can use your hands and feet, try to make your presence heard by hitting water, heating, gas installations and the floor.
- If you can use your voice, try to hear the voices of the rescuers and call out to them. However, use your energy in a controlled manner (https://www.afad.gov.tr).

5.6. What to do on the basis of Public Authority after the Disaster

In order to reduce disaster damages, an effective disaster management should be implemented after the disaster. It is very important to organize and implement disaster management in a way that includes emergency response, recovery and reconstruction works. For this reason, it is necessary for a successful disaster management to know how and under which organization the post-disaster recovery plan can be carried out and to ensure coordination.

In this context; If we consider the post-disaster recovery process in 4 stages (Özmen, 2016: 40),

- Intervention Period: Lasts several weeks. It includes search and rescue, provision of temporary shelter needs (tent-food-beverage), damage assessment and debris removal.
- Normalization Period: Lasts for a few months. It covers, albeit limited, efforts to return to economic and social activities.
- Establishment Period of New Settlements: It may take 1-2 years. It includes studies on selecting suitable areas for settlement based on risk assessment, constructing permanent residences, and improving economic and social life.
- Development-Oriented Reconstruction Period: It covers the activities for the development of the disaster-affected region, which can be sustained for 1 to 5 years.

It is very important that the public components coordinate and contribute efficiently during these phases. Public components can be defined as:

- Central and local governments
- local disaster emergency specialist
- Officials from local government units
- Governor



- Finance
- Environment and urban ministry
- planning office
- Police
- Fire Department
- Universities and Research Institutions
- Citizens

Table 1.	Things to	be done	by the	public	authority.
			<i>c j m</i>	p	

Public Component	What to do		
Central and local governments	Explanation of the Aid Terms		
	Determining the contributions of government		
	institutions		
	Declaring the state of disaster (regional or national)		
local disaster emergency specialist	Preparedness and response		
	Coordinating damage assessment studies		
	Creation and direction of local search and rescue		
	teams		
Officials from local government units	Determining the participation of public officials		
	Identification of the domain and the roles of local		
	authorities		
	Providing local technical assistance		
Governor	Informing the central administration about disaster		
	recovery activities		
Finance	Documentation of expenditures made		
	Financial tracking of grants		
Environment and urban ministry	Performing damage assessment studies after		
	disaster		
	Repair of water and sewer networks		
	Repairing damaged infrastructure		
planning office	Preparation of disaster preparedness plans		
	Follow-up of grant applications for pre-disaster and		
	post-disaster		
	Re-detection of post-disaster settlements		
Police	Assisting individuals when needed		
	Protecting public and private property		
Fire Department	Initial search and rescue		
	suppressing fires		
	Assisting with damage assessments		
Universities and Research Institutions	Addressing complex research questions		
	The researcher-practitioner distinction		
	Providing policy advice to practitioners		
	Conducting research to identify problems or gaps		
	in the literature		
	Post-disaster data collection and analysis		
	creating research reports or monographs		



	Teaching				
	Educating and guiding future emergency				
	management professionals				
Citizens (Disaster Victims)	helping others				
	Join a community or neighborhood level disaster				
	preparedness group				
	Volunteering in disaster relief organizations				
	Providing information to other victims or response				
	and rescue organizations				
	Investigation of disaster relief eligibility				
	Application for rescue assistance				

In the paragraph d) of Article 38 of the Law No. 5902 on Certain Arrangements Regarding the Disaster and Emergency Management Presidency, "Post-disaster reconstruction and improvement in cooperation with public institutions and organizations, local administrations, universities and non-governmental organizations in disaster-affected regions. There is a provision regarding making an improvement plan such as "preparing the plans for the preparation, coordinating the implementation of the plans, preparing the progress reports regarding the implementation".

7269 In the Law on the Aid to be Taken Due to Disasters Affecting Public Life, the studies to be carried out on post-disaster recovery are only limited to emergency response, search and rescue, damage assessment, temporary resettlement, identification of beneficiaries, procurement and planning of new settlements, construction of permanent residences and delivery to beneficiaries. There are provisions on housing construction.

What needs to be done to prepare an effective improvement plan:

- Additional legislation should be enacted to prepare a post-disaster recovery plan.
- Procedures and principles regarding the preparation of a post-disaster recovery plan should be prepared.
- The institution that will be responsible for the preparation and implementation of the post-disaster recovery plan should be determined.
- The location of temporary housing and permanent settlement after the disaster should be determined before the disaster occurs. If this is not done, it becomes difficult to determine permanent residences and new settlements after the disaster, and because risk assessments based on geoscience data are mostly not performed, wrong places are chosen.



- Institutional responsibilities in damage assessment, expropriation, renewal of infrastructures and resettlement activities should be determined.
- Accredited companies that can carry out post-disaster recovery work should be determined before the disaster.

Reference:

Özmen R. (2016), The Role of the State in the Post-Disaster Recovery Process, Ankara: Abolished Ministry of Development Publications

Stakeholders and Their Roles in Recovery - FEMA Training https://training.fema.gov

5.7. Energy Sustainability and Energy Efficiency in Disaster Management

Due to its geological, tectonic, meteorological, seismic, topographic and climatic structure, our country may experience floods, rockfalls, etc. It is frequently faced with natural disasters such as landslides, especially earthquakes. Our country ranks third in the world in terms of human loss in earthquakes and eighth in terms of the number of people affected by earthquakes. Disasters affect community life and cause loss of life and property.

The first stage after a disaster is during disaster victims, health care, food and shelter. In disasters, power generation plants, energy transmission lines, substations and transmission equipment become inoperable due to demolition. Therefore, one of the most important needs in disasters is the supply of electrical energy.

Thousands and even tens of thousands of buildings in some regions were destroyed or severely damaged in the earthquakes that occurred in our country, and long-term power cuts were experienced in the city center, towns and villages. In natural disasters, people are mostly deprived of electricity, heating, lighting and electricity services. Within the scope of disaster management, it is extremely important to plan and implement urgently in case of disaster in order to meet the energy needs that will occur after the disaster, to ensure the sustainability and efficiency of energy.

Energy distribution companies should increase the number of "high-capacity generators" they install in regions with high earthquake risk on the earthquake map of our country. Especially in big cities, it is necessary to establish a separate electricity facility and electricity transmission-distribution lines for alternative use in emergencies. It is necessary to install generators on the



streets that will provide electricity with powers ranging from 25-150 KVA, to place sockets on the outer panels of these generators to meet the need for telephone charging, and to transfer fuel to these generators at regular intervals, considering that a disaster may occur at any moment.

The locations of residences, public-university-industrial institutions producing electricity from renewable energy sources (solar, wind, thermal, etc.) and related inventory information should be available in a single digital file that can be easily accessed by the public through the mobile application. Solar energy has a high potential due to the geographical location of our country. Although the sunshine duration of our country varies throughout the year, it is approximately 2,800 hours per year. Lighting, warming, powering small appliances, charging phones, etc. In order to meet the electricity need in such cases, it is necessary to produce and expand the production of high-performance containers in which energy can be produced through the solar energy system and energy storage systems such as battery systems and energy can be stored.



Figure 1. Schematic Illustration of Renewable Energy System Equipped Container.

6. CONCLUSION

As a result, in order to reduce the effects of disasters, if necessary, improvements should be made in the existing disaster management principles. Studies in the field of disaster management show socio-economic conditions as the main reason for the increase in damages against disasters in our country. It is stated that improving these conditions together with training and technical conditions will increase the resistance to disasters. Thus, it is interpreted



as the way of Sustainable Disaster Planning will be opened and sustainable development goals will be approached by investing in people and education. As a result, efficient use of economic resources will be ensured and UN Sustainability targets will be achieved.

Reference: https://eski.jmo.org.tr/genel/bizden_detay.php?kod=43&tipi=2&sube=0