WE ARE STRENGTHENING OUR FUTURE

Istanbul Seismic Risk Mitigation and Emergency Preparedness Project

The Giant Project of Istanbul: ISMEP

Retrofitting and Reconstruction Works Enhancing Institutional and Technical Capacity

ISTAMP Istanbul Disaster Response Plan



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TR Governorship of Istanbul Istanbul Project Coordination Unit

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Safe Life and Safe Istanbul with ISMEP

Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP) is a risk mitigation project established under the roof of Governorship of Istanbul and conducted by Istanbul Project Coordination Unit (IPKB). ISMEP has been established in order to prepare the city against a possible earthquake and involves supportive and preventive practices directed towards preparedness, mitigation, response and recovery works needed before, during and after the disaster. ISMEP, which has started its studies in 2006 with the budget of 310 million Euros funded by World Bank, has now reached the budget of 1.5 billion Euros with the additional funds provided from World Bank, European Investment Bank, Council of Europe Development Bank and Islamic Development Bank.

ISMEP is conducted by professionals with international perspective and vast technical capacity coming from various disciplines; the aim of the project is to prepare the city and all of its citizens entirely for a possible earthquake and its aftermath. With the awareness that we are located within the first degree seismic zone, the project is being conducted in a multi-dimensional and multi-layered structure in a manner that will realize the city's whole potential. Our target is to reach the whole city of Istanbul in individual, structural and environmental aspects.

ISMEP is a project implemented both to incorporate the reinforcement of public buildings against earthquakes and enhancement of communication and information systems, yet on the other hand it also has a social extent. Consequently, it contributes to the preparation of the society for the disasters by raising social awareness.

The project, which identifies the risks by adopting a proactive policy which will enable educational and cultural structures to reach the future without being put in jeopardy by earthquakes and uses systems that could mitigate these risks, produces sustainable models that will set an example both in Istanbul and in many locations worldwide with its procedural approach.

Furthermore, ISMEP, which is a great example for demonstrating that proactive success in disaster management depends on informing and empowering local government, has drawn the attention of the world due to being the first risk mitigation project conducted by a local government.

Even though prevention of a disaster is impossible, it is possible to reduce or even eliminate the destruction that might be caused by disasters. Our aim is to improve the awareness about taking precautions and mitigation within our society, to accelerate the training activities and to reach out to all layers of the society with these efforts since it is a society living face to face with disasters.

Best regards,

Hüseyin Avni Mutlu Governor of Istanbul

Depreme karşı **bir saat, bir hayat**

Onlar için, onlarsız geçireceğin 1 saatle sevdiklerinin hayatını koru.

Sadece bir saat süren **Güvenli Yaşam Eğitimi**'ne katılarak deprem ve diğer afetlerde sevdiklerini nasıl koruyacağını öğrenebilir, evinde ya da işyerinde temel önlemleri alabilirsin.











We are Strengthening Our Future

As the director of Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP), it is an honour for me to share this publication with you. ISMEP, which is the first risk mitigation project conducted in our country, is one of the most successful examples of its kind not only in Turkey but also worldwide. I hope that this study will convey to you the targets and outputs of the project which is conducted in order to mitigate the risks of the future Istanbul earthquake.

Our project, of which details you will read within the following pages, involves the essential components of increasing the preparedness capacity in case of an emergency, risk mitigation in priority public buildings and implementation of the building codes.

Within the scope of this project which we announced to the citizens of Istanbul with the motto "Safe City, Safe Life", we trained approximately 800.000 people and 200.000 citizens have volunteered in the "Safe Life Trainings." Approximately 6 million pieces of training material has been shared with the public.

The number of retrofitted or reconstructed schools are planned to be 851 by the end of the year 2014 and thus, over 1.5 million students now receive education in safer schools.

This is not all that has been achieved with our project which aims to make Istanbul a more resilient city on both individual and institutional levels. We have made significant progress since February 2006, when we began our endeavours.

We conduct our works in line with the principles of the modern disaster management, by following the international developments closely, using an integrated structure in which all the partners and sources are actively involved and improve these endeavours so that they follow an approach founded on a social basis.

This project is supported and contributed by institutions and organizations by a great number of people in the background. I would like to thank everyone who has shared our enthusiasm for Istanbul, the city whose future we are strengthening.

Regards,

Kazım Gökhan Elgin IPKB Director







SMEP

Supportive and preventive practices regarding to the preparedness, mitigation, response and recovery works needed in advance, during and after the disasters are covered with ISMEP, which has been implemented by taking into account the scientific researches and data about earthquake risks in Istanbul.

The Giant Project of Istanbul

Today, more than half of world's population lives in cities and our era is referred to as the "urban millenium"; under these circumstances, the existing natural dangers emanating from the cities are increasing.

Istanbul, as the biggest city in Turkey, on the one hand protects its position as the cultural, economical and industrial center of the country with its natural and produced values and on the other hand, it bears a high earthquake risk due to its location near the North Anatolian Fault Line.

A possible earthquake in Istanbul has the potential to affect not only the city itself, but also the whole country economically.









For several reasons such as its geographical location, population, utilization of the residential areas, social structure and its significance for the economy of the country, Istanbul might be affected severely by disasters like earthquakes.

Researches show that an earthquake which could occur in Istanbul will not only cause mortality and anguish, but will have serious economic, social and environmental impacts. According to some sources, such a disaster is likely to have an economical impact of over 50 billion USD. Significant progress has been made in practices realized in parallel with the lessons learnt from the past disasters in Istanbul and with international developments.

"Risk mitigation" and "preparedness" activities, which include taking precautions before disasters happen, have become the most important component of disaster management practices.

One of the projects actualized in order to prepare the city of Istanbul and its citizens for a disaster, primarily an earthquake, is Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP).

Shattering of the North Anatolian Fault Lines (by year)



Earthquakes are disasters which pose the utmost danger for our country due to their impacts and the extent of the loss they cause. Approximately 98% of Turkey is located on the seismic belt.

PROJECT IDENTIFICATION

Region Istanbul /TURKEY

Project

Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP)

Project Owner

Republic of Turkey Prime Ministry Undersecretariat of Treasury

Implementing Bodies

Istanbul Governorship, Istanbul Project Coordination Unit

Duration of the Project 2006-2019

Funded by

World Bank,

European Investment Bank,

Council of Europe Development Bank, Islamic Development Bank

Budget of the Project

1.5 billion Euros





The realization and supervision of the activities within the scope of ISMEP are conducted by Istanbul Project Coordination Unit (IPKB) constituted under Republic of Turkey Governorship of Istanbul. ISMEP is a wide-scope Project which covers supportive and preventive practices directed towards preparedness, mitigation, response and recovery including the periods in advance, during and after the disaster. The project consists of three components complementing one another: preparing for emergencies in the aftermath of earthquakes through risk mitigation measures on individual, family and institutional levels and increasing the emergency response capacity, mitigating the risks caused by earthquakes by retrofitting the schools, hospitals and public buildings, finally increasing the institutional and technical capacity with regard to buildig codes.

The realization and supervision of the activities within the scope of the project is conducted by Istanbul Project Coordination Unit (IPKB) constituted under TR Governorship of Istanbul.

The disaster management system practiced in our country is developed with community based approach comprising all phases of modern disaster management including preparedness, mitigation, response and recovery. It also takes the disaster preparedness studies in a multidisciplinary and integrated structure covering many sectors and ensuring the active participation of all stakeholders and resources.

Accordingly, one of the subjects to which the most importance is attached is that participation to the activities is ensured and that the preparation activities are conducted in an organized manner to develop cooperation and coordination in the city. To this end, several communication and training programs are being conducted with the coordination of Provincial Directorate of Disaster and Emergency (DED) in order to raise awareness and preparedness of Istanbul citizens. Furthermore, various activities are conducted in order to support and improve the preparation capacities of public institutions, primarily of Provincial Directorate of Disaster and Emergency.

Aims of ISMEP under Possible Disaster Conditions

- Developing the institutional and technical capacity in disaster management
- Preparing the public for emergencies and raising response awareness
- Examining the condition of prioritized public buildings in terms of seismic risk and determining either to retrofit or reconstruct them according to the results of the examination
- Supporting the national disaster activities
- Taking the seismic risk inventory of buildings within the scope of cultural and historical heritage and project designing
- Taking supportive measures in order to apply the building codes more effectively and building an infrastructure for urban renewal works

Main Components of ISMEP

Component A

Enhancing Emergency Preparedness

- Establishment and development of emergency communication systems,
- Establishment of emergency information management system,
- Enhancement of Disaster and Emergency Directorate (Istanbul DED),
- Increasing the response capacity of institutions and foundations during disaster and emergency,
- Training and raising awareness of the public.

Component B

Seismic Risk Mitigation for Priority Public Facilities

- Retrofitting and reconstruction of priority public facilities,
- Supporting the national disaster projects,
- Conservation of the cultural heritage,
- Analysis of current policy and instrument regarding land and property code.

Component C

Enforcement of Building Code

- Inspection of municipalities' land code and developing solutions,
- Implementation of volunteering trainings for the engineers,
- Organization of building construction permit and audit process for pilot municipalities and enhancement of technical and institutional capacity of concerned legislation.



Enhancing Institutional and Technical Capacity



Many investments are made within the scope of ISMEP in order to prepare the institutions in Istanbul for disasters and emergencies and to increase their response capacities.

Technical and Operational Investments

Many investments are made within the scope of ISMEP for preparing the institutions in Istanbul for disasters and emergencies and increasing their response capacities. These investments involve the building of Provincial Command and Control Center pertaining to Istanbul DED, strengthening the infrastructure of emergency communication systems, constituting the "Disaster and Emergency Information System" in order to ensure coordination with all institutions, the Hasdal Command and Control Center which will be the first effective Command and Control Center in Istanbul and whose construction is still continuing, purchasing equipment in order to increase the emergency response capacity and the recovery equipment.

Provincial Directorate of Disaster and Emergency (Istanbul DED) Headquarters

The construction expenses of "Provincial Command and Control Center" of Istanbul DED, which ensures coordination and cooperation among the institutions responsible for conducting disaster preparation and works on a 24-hour operation basis, is covered by the budget of Special Provincial Administration and the center is equipped through the budget of ISMEP.



Through the display wall system which is built in the "Operation Hall", which covers an area of 45 m^2 and comprises of 32 modules of 67 inches, it is possible to access the road images of Istanbul Metropolitan Municipality and the MOBESE camera images of Istanbul Security Directorate.

Provincial Directorate of Disaster and Emergency operates towards the following aims:

- Ensuring coordination and cooperation among the institutions which legally conduct disaster preparedness
- Preparing the prevention and response plans against disasters and emergencies
- Undertaking the organizations and practices to ensure that professional and voluntary institutions participate actively in these activities



Coverage area before ISMEP



Coverage area after ISMEP



According to the protocol signed with the General Directorate of Meteorology, Afet FM (Disaster Radio) will be broadcasted at the 103.0 Mhz frequency, Meteorolojinin Sesi Radyosu (Meteorology Radio), on certain days and hours, in order to inform the public in possible disaster or crisis conditions.

The investments for an analogue radio network and its peripheral equipment which covers all of Istanbul has been completed within the scope of ISMEP.

Emergency Communication Systems

In case of a disaster, it is vital to sustain the effective communication among public institutions. Within the scope of ISMEP, purchase and installation of existing analogue wireless zone transmitters, mobile radio communication relays, microwave links and peripheral equipment were done. Furthermore, two frequencies, one in UHF and the other in VHF bands, were allocated in order to be utilized as common channels in case of a disaster. Terrestrial lines, analogue and wireless systems and GSM/3G networks are also used within the system.

The investments for an analogue radio network and its peripheral equipment which covers all of Istanbul has been completed within the scope of ISMEP.

Beneficiary Institutions

- Istanbul DED
- Istanbul Search and Rescue Corps Directorate
- Provincial Directorate of Health, UMKE (National Medical Rescue Teams), 112 Provincial Ambulance Service Head Physician
- Provincial Directorate of Security

Investments

- Mobile Relays
- Zone Transmitters
- Radio Communication
- Radio communication switchboard and management platform
- Other peripheral equipment

In order to strengthen the existing communication infrastructure of Provincial Directorate of Disaster and Emergency, two mobile communication devices were purchased. The mobile devices designed to apply the functions of Provincial Directorate of Disaster and Emergency Communication Centers can transmit audio, data and live image transfer thanks to the technologies they possess.

Disaster and Emergency Information System

Provincial Directorate of Disaster and Emergency and IPKB developed the "Disaster and Emergency Information System" in order to ensure coordination with relevant institutions in emergency conditions.

When the system is fully activated, it will employ a structure which enables data input and updates by all related institutions. The essential functions of the future disaster information system will be as follows:

- Resource and Infrastructure Management
- Control Lists and Planning
- Crisis Management
- Geographical Info System
- Temporary Housing Management
- Status Notification
- Enhancing Management
- Integration with Early Warning Systems
- Messaging and Integration Infrastructure
- Exercises and Training
- Coordination of International Aids

Developing information system supports all phases of the disaster and emergency management including preparedness, mitigation, response and recovery.



Recent Command and Control Centers of Istanbul

Two new command and control centers to complement each other in a disaster condition have been built for Provincial Directorate of Disaster and Emergency (DED) within the scope of ISMEP.

The European Side Hasdal Provincial Directorate of Disaster and Emergency Building, which has been newly completed has come into service in July 2013. The center which has an indoor area of 7,500 m² is both easy to access via air or land and also has a communication and information technologies infrastructure which enables approximately 500 people to work in a disaster condition.

The construction of the other center which is located in the Campus of Anatolian Side Kızılay Marmara Disaster Response and Logistics Center (MAFOM) has a total indoor area of 17,350 m² (including the closed depot area of 8,100 m² with a capacity of 1,237 containers) is estimated to be completed within 2014. In the center, which will offer the possibility to load at 8 different points, there will be an open depot area with a capacity of 246 containers and a parking area which will accommodate 20 semitrailers.

Command and Control Center is able to work uninterrupted in the disaster and emergency situations through the back-up generators inside and outside the building and its minimum fourday capacity fuel tank.



Vehicle and Equipment Purchases

Besides the vehicle and equipment purchases made in order to increase the emergency response capacity of the first response institutions in Istanbul, within the scope of ISMEP, very extensive investments were made for Provincial Directorate of Disaster and Emergency, Provincial Directorate of Security, Provincial Directorate of Health, UMKE (National Medical Rescue Teams), Red Crescent and Boğaziçi University Kandilli Observatory and Earthquake Research Institute.

The mentioned purchases and investments are as follows:

- Emergency exploration, operation and rescue vehicles
- Communication vehicles
- Rescue equipment
- Mobile decontamination system
- Medical equipment
- Containers
- Light towers
- Cold storages
- "Mevlana" Houses

In-vehicle images









4x4 land-type rescue vehicle







A New Training Center Will be Built for Provincial Directorate of Disaster and Emergency (DED)

A new "training center" is planned to be built within Yeşilköy Training Center's grounds covering 7.000 square meters where search and rescue teams will be able to get training.

Various stations applicable to give training on search and rescue below debris, search and rescue guided by dogs, search and rescue in water, search and rescue in traffic accidents, tower climbing and descending, fire fighting, chemical-biological-radiologicnuclear (CBRN) risk are going to be built within the premises of DED's Yeşilköy Training Center.

Administrative and technical facilities such as lecture halls, training halls, an earthquake and electronic simulation room, instrument maintenance unit are designed to be present in the new "training center".

The project of this particular training center will be put in tender within 2014 and the construction is planned to initiate by the end of 2015.

Decontamination Vehicle Lifting System



Decontamination System Independent Module



Decontamination Vehicle

Uninterrupted power... Uninterrupted communication!



The land-type communication vehicle which was purchased superstructurally under ISMEP goes to the regions where communication is interrupted after the disaster and communicates information to the centers about the condition and needs of the region.

In the vehicle, there is VHF and UHF radio communication and also HF radio communication, which enable one to communicate even internationally.

Within the vehicle, there are satellite phones which provide communication via lower and higher earth orbiting satellites and also IP based wireless phones in order to enable the personnel to communicate with one another both in and out of the vehicle.

The integrating device which can connect the calls made via the communication equipment is one of the most important eqipments of the vehicle. Owing to this device, one can communicate using two radio communication devices or between radio communication device and mobile phone or land phone.

The vehicle has TV broadcast thanks to the satellite systems; also, there is uninterrupted audio and visual communication thanks to the camera located on a hydraulic system.

The vehicle is also able to use 3G mobile phone networks and terrestrial phone systems. Furthermore, there is wireless internet in the vehicle besides an ADSL modem.

The ATV 4x4 land-type 4-wheel motorcycle located at the rear of the vehicle and which can be taken down for use if needed is very convenient for going to places the vehicle cannot reach and it can transfer audio information via HF radio communication.

The gigantic vehicle has 14 projectors in total (1 to move 360° left and right for peripheral lighting, 5 to illuminate the front, 8 to illuminate the sides and the rear) and also a siren and an announce system.

The vehicle is powered by the in-built generator. System has also 3 wind turbines on the top of the vehicle and 6 solar panels. 2 of these panels can position themselves according to the location of the sun.







ISTAMP

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Istanbul Disaster Response Plan

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The integrated process during which determination of rules and responsibilities to be abided by service groups, coordination units which will be active in disaster response anticipated in Istanbul is in continuation and led by Turkey Disaster Response Plan (TAMP) in order to set up planning for the fundamental principles of response and intervention in advance, during and after an occurrence of disaster.



Institutions in Istanbul which are Ready for a Disaster

With the implementation of Istanbul Disaster Response Plan (ISTAMP), there is a new and outstanding disaster planning process continuing in order for the institutions which will respond to the disasters to play their part most effectively and for the disaster management to be actualized according to a plan. Within this new structure which is built so as to respond to the need of the city, the management and coordination organs consist of 28 service groups gathered under the roof of 4 services.

The organized and applied drills with the participation of over 100 institutions and foundations aim to keep the planning of disaster response capacity updated regularly and to make it work properly.



In ISTAMP where integrated disaster management is applied, all disasters are considered including earthquakes and related risks are aimed to be managed.

Comparison of the Current System and ISTAMP Approaches



Number of service groups have been increased from 9 to 26 in the new organization structure created for Istanbul under the scope of ISTAMP. "Incident Command System " in reliance with international standards had been implemented. Morever, all organizations and instutions are aimed to be shareholders in the system rather than definite herarchical distinctions.

Future Risk Mitigation Works

The disaster and emergency planning works conducted in Istanbul are designed so that they are unique to the city and dynamic. The final aim of all of these activities is to hand over a safe city to the future generations. The intention is to maintain prevalance of this pilot project aiming to attenuate the social and economic effects of a disaster to all of institutions in Istanbul and to constitute a precedent for other cities as well.

It is known that one of the biggest dangers for Istanbul is the "earthquake." What about other ones? Since it is of crucial importance to determine the other potential dangers threatening Istanbul yet unaccounted for now, a strategy called "Istanbul Urban Disaster Risk Management" is being developed with the participation and support of public institutions, local authorities, universities, nongovernmental organizations, media and private sector.



When planning works are completed, besides sharing these works with various partner institutions such as the private sector and universities, the intention is that the public version of the plan is shared also with the citizens of Istanbul.

The achievement aimed is to create a risk management strategy guide, in which the proper approach identifies the dangers and possible damage for the global city of Istanbul and risk analysis is laid out.

This advisory document will be a source of information

about gathering data, creating a database, taking danger analysis, risk analysis and ensuring risk mitigation.

Intended Works

Planning Trainings and Workshops

Disaster and Emergency Planning Support

Urban Disaster and Emergency Planning Guides

Integration of Institutional Plans to City Disaster Information System



The final aim of all of these activities is to hand over a safe city to the future generations.

ISMEP in CNN's "The Greatest Investments" Documentary

For the documentary in which great investments worldwide are narrated, CNN International had included ISMEP, as one of the most expensive earthquake preparedness projects in the world. In this documentary, the reinforcement works of Paşabahçe Public Hospital were examined in detail. ISMEP was introduced as the "Giant Project of Istanbul" in the production which also included projects such as Marmaray and Sabiha Gökçen Airport.

http://edition.cnn.com/video/#/video/world/2010/07/12/future.cities.istanbul.earthquake.cnn?iref=allsearch

Retrofitting and Reconstruction Works

Istanbul is strengthening with ISMEP. Within the scope of the project, seismic risks are mitigated by feasibility, retrofitting and reconstructing works of priority public buildings.

Sectoral Allocation of Investments (%)

Istanbul is Stronger with ISMEP



During the works of 857 school buildings, the construction of 3.1 million m^2 area has been completed, an area equal to 428 football fields has been constructed and 1.5 million students and teachers have benefited.

ISMEP Works on Educational Institutions

Within the scope of the project, the seismic risks of 1962 public buildings were evaluated and the works for retrofitting and reconstructing these buildings, primarily the educational facilities, have begun.

51% of the investments of ISMEP are made for educational institutions. With the works conducted in educational facilities, the children are enabled to be educated in healthier and safer conditions. With ISMEP school investments in Istanbul, 1.5 million students and teachers obtained safer education conditions.

In the reinforced school buildings, in order to attain the targeted earthquake safety performance level, measures are being taken towards increasing earthquake safety. During the year 2014, feasibility studies of 354 school buildings, retrofitting and reconstruction of 64 school buildings have been taking place.







The feasibility studies of all schools within the scope of the project have been performed before construction began.



Barış Manço Elementary School is among the ones reinforced within the scope of ISMEP.



Gaziosmanpaşa Elementary School has been rebuilt within the scope of ISMEP.

Completed Feasibility Studies

Building type	Campus	Building
Schools	964	1351
Hospitals	31	310
Outpatient clinics-health centers	104	104
Administrative buildings	91	127
Dormitories	15	46
Social service buildings	13	31
Total	1218	1969

While the feasibility study of 1969 buildings has been completed in 1218 campuses, 151 buildings in 115 campuses are stil being studied.

Completed Retrofitting and Restoration Works

Building type	Campus	Building
Schools	540	679
Hospitals	9	29
Policlinics – health centers	58	58
Administrative buildings	21	39
Dormitory buildings	10	25
Social service buildings	8	16
Total	646	846

Reinforcement and retrofitting of 51 buildings in 43 campuses are in progress.

Completed Reconstruction Works

Building type	Campus	Building
Schools	170	178
Hospitals	2	2
Policlinics – health centers	2	2
Administrative buildings	3	8
Dormitory buildings	-	-
Social service buildings	2	6
Total	179	196

28 campuses and 29 buildings are still in tender phase.

ERKAN AVCI INDUSTRIAL VOCATIONAL HIGH SCHOOL



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During the project phases, the schools, after going through evaluation and inspection processes by consultant firms, independent auditors and relevant institutions, are delivered as ready in order to commence education. In the schools where reinforcement works are undertaken, all necessary procedures such as thermal insulation, renewal of fire and natural gas installments, energysaving solutions and contour drainage are also performed.

Design in Harmony with the Historical Texture

Üsküdar Mustafa Noyan Elementary School, which is located on the same street as the Valide-i Atik Mosque and Social Complex built by Mimar Sinan in 1583, has been designed in a structurally modern but visually historical manner.

With the project actualized with the approval of cultural and natural heritage preservation board, the number of classrooms was raised from 10 to 18 and the usage area was increased from 1,600 m² to 4,000 m².



Üsküdar Mustafa Noyan Elementary School is demolished and reconstructed in harmony with the historical texture of the area.



Working Together for Energy Efficiency for a Smart School Project

Energy Efficiency for a Smart School Project, which is intended to be actualized firstly for Bahçelievler Kazım Karabekir Elementary School within the scope of ISMEP, supported by the Black Sea Economic Cooperation, aims to attract attention to energy efficiency and renewable energy sources.

The project will be an example which will raise awareness in Turkey within the Black Sea Economic Cooperation Region. The photovoltaic panels, the solar energy systems which will comprise of "Solar Tree" and "Solar Performance Monitoring System", will produce 11 kW energy in total. The data obtained from the monitoring system is broadcasted in a TV screen and also is published on the website of the project.

The first school to produce its own electricity

As the project is completed, Kazım Karabekir school has been the first public school in Istanbul to produce its own electricity. Moreover, "Solar Tree" had been established in an educational institution for the first time. Furthermore, with the "Training of Energy Smart People", an awareness of energy efficiency among students, teachers and parents have been created.



We are Strengthening Our Future...



WE ARE BUILDING DISASTER RESILIENT CITIES WE ARE CREATING SOCIAL RESILIANCE AGAINST DISASTERS WE ARE PRESERVING OUR CULTURAL HERITAGE SOCIETY BASED DISASTER MANAGEMENT

We are in continuous and sustainable cooperation with ISMEP in order to be prepared against prospective disasters in Istanbul since 2006. Under the scope of projects, priority public buildings such as schools and hospitals are retrofitted, emergency preparedness capacity is increased, society is acknowledged regarding disaster preparedness and our cultural heritage is preserved in conformity with a society based and proactive approach.



ISMEP Hospital and Health Institution Works

In a possible case of disaster occuring in Istanbul, since it is essential for hospitals and other health institutions to continue their operation, the feasibility studies of all the hospitals and health institutions were performed; then, retrofitting or, if retrofitting is not the appropriate method, reconstruction of the buildings took place.

By the end of July 2014, within the scope of ISMEP retrofitting for

- Zeytinburnu Public Hygiene Institute
- Beykoz Paşabahçe Public Hospital
- Şile State Hospital
- Bakırköy Psychiatric Hospital

- Maltepe Vocational Diseases Hospital
- Tacirler Vakfi Sultanbeyli State Hospital
- Pendik State Hospital
- Beykoz Public Hospital
- Bayrampaşa Public Hospital have been completed covering 9 big scaled hospitals, 58 polyclinics and health centers.

Moreover retrofitting continue in

- Validebağ Teachers State Hospital
- Zeynep Kamil Maternity and Children's Hospital.

Works for 5 big hospitals continue at full pace in Istanbul under the scope of ISMEP

- Marmara University Training and Research Hospital (Başıbüyük Campus)
- Göztepe Training and Research Hospital
- Ümraniye Maternity and Children's Hospital
- Okmeydanı Training and Research Hospital
- Kartal Lütfi Kırdar Training and Research Hospital reconstrucition works will bring in health facilities having 923.000 m² of site and 4462 bed capacity for emergencies to Istanbul.

MARMARA UNIVERSITY TRAINING AND RESEARCH HOSPITAL



Project Name: Marmara University Başıbüyük Training and Research Hospital Retrofitting and Restoration Project **Start-End Date:** 2012-2015 **Total Construction Area:** 113.000 m²

- Construction Start Date: 1991
- Retrofitting Date: 2002
- Number of Blocks: 17
- Number of Floors: 2B + Z + 9
- Bed Capacity: 600
- Operation room capacity: 28
- Pre-operation bed capacity: 28
- Post-operation care bed capacity: 53
- Angiography capacity: 1
- Intensive care bed capacity: 61
- Intensive care isolated bed capacity: 11
- Doctors' lounge capacity: 80
- Nurses' lounge capacity: 70
- Doctor asepsis capacity: 182
- Nurse asepsis capacity: 2.001

GÖZTEPE TRAINING AND RESEARCH HOSPITAL

Project Name: Göztepe Training and Research Hospital Reconstruction Works **Start-End Date:** 2014-2019 **Construction Site:** 215,000 m² (Hospital)+35,000 m² (Parking Garage) **Total:** 250,000 m²



- The hospital is intended to have 1149 beds.
- Half of the rooms in the inpatient service will be single-bed and half double-bed.
- The single-bed rooms will be big and equipped enough (like having a bedhead unit) to be used by two people in urgency cases.
- Both single- and double-bed patient rooms (except for suites) will be approximately 35 m².
- The capacity of the hospital is calculated as 1,5 million ambulant patients and 50,000 inpatients annually.
- Göztepe Hospital is planned to be designed as a training and research hospital specialized in pediatrics.

- The hospital will be built so as to incorportate "seismic insulation" in order to operate properly after an earthquake.
- Underground parking lots are going to be built in order to leave vast green areas on the surface which will serve as a common gathering space in case of a disaster or emergency
- The new hospital will be built without interrupting the existing hospital's operation. In order to achieve this, the construction works will be completed in several phases.
- The hospital will be equipped with energy saving systems and with the trigeneration center it will produce a significant amount of its own electricity from natural gas.

ÜMRANİYE MATERNITY AND CHILDREN'S HOSPITAL

Project Name: Ümraniye Maternity and Children's Hospital Reconstruction Works Start-End Date: 2013-2015 Construction Site: 55,000 m² (Hospital)+45,000 m² (Parking Lot) Total: 100,000 m²

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Statistical Log

- The hospital is intended to have 465 beds.
- Half of the rooms in the inpatient service will be single-bed and half double-bed.
- The single-bed rooms will be big and equipped enough (like having a bedhead unit) to be used by two people in urgency cases.
- Both single- and double-bed patient rooms (except for suites) will be approximately 35 m².
- The hospital will be constructed with the latest technology in a manner that will meet the relevant European and Turkish standards.
- Underground parking lots are going to be built in order to leave vast green areas on the surface which will serve as a common gathering space in case of a disaster or emergency

OKMEYDANI TRAINING AND RESEARCH HOSPITAL

Project Name: Okmeydanı Training and Research Hospital Reconstruction Works Start-End Date: 2014-2018 Construction Site: 215,000 m² (Hospital)+35,000 m² (Parking Garage) Total: 250,000 m²



- The hospital is intended to have 1,099 beds.
- Half of the rooms in the inpatient service will be single-bed and half double-bed.
- The single-bed rooms will be big and equipped enough (like having a bedhead unit) to be used by two people in urgency cases.
- Both single- and double-bed patient rooms (except for suites) will be approximately 35 m².
- The capacity of the hospital is calculated as 1,5 million ambulant patients and 50 thousand inpatients annually.
- Okmeydanı Hospital is planned to be designed as a training and research hospital specializing in oncology.
- The hospital will be built so as to incorportate "seismic insulation" in order to operate properly after an earthquake.
- Underground parking lots are going to be built in order to leave vast green areas on the surface which will serve as a common gathering space in case of a disaster or emergency
- The new hospital will be built without interrupting the existing hospital's operation. In order to achieve this, the construction works will be completed in several phases.
- The hospital will be equipped with energy saving systems and with the trigeneration center it will produce a significant amount of its own electricity from natural gas.

KARTAL LÜTFİ KIRDAR TRAINING AND RESEARCH HOSPITAL



Project Name: Kartal Lütfi Kırdar Training and Research Hospital Reconstruction Works **Start-End Date:** 2014-2018 **Construction Site:** 240,000 m² (Hospital)+50,000 m² (Parking Garage) **Total:** 290,000 m²



- The hospital is intended to have 1,003 beds.
- Half of the rooms in the inpatient service will be single-bed and half double-bed.
- The single-bed rooms will be big enough to be used by two people in urgency cases.
- Both single and double-bed patient rooms (except for suites) will be approximately 35 m².
- The capacity of the hospital is calculated as 1,5 million ambulant patients and 50 thousand inpatients annually.
- The hospital will be built so as to incorportate "seismic insulation" in order to operate properly after an earthquake.
- Underground parking lots are going to be built in order to leave vast green areas on the surface which will serve as a common gathering space in case of a disaster or emergency
- The hospital will be equipped with energy saving systems and with the trigeneration center it will produce a significant amount of its own electricity from natural gas.

Community Getting Prepared for Disasters

Tahliyanin Başarılı Olr Dikkat Edilmesi Gerek



GUVENUL VASAAT - 2

50

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+ Her alte Billerrich Billerrich

Training programs have been prepared for a wide target group, such as individuals and families, children, institutions, disadvantaged and disabled people, in order to increase the preparedness capacity of the citizens of Istanbul for a disaster.

Enhancing the Social Capacity with Trainings and Awareness Programs

A disaster affects each society in a different way. Experiences show that the public plays an active role in successful risk mitigation activities. In this regard, the most effective and sustainable risk mitigation method is clearly seen to be creating an informed, aware, responsible society potential and enhancing this capacity.

In order to be able to live with natural dangers, especially earthquake, "Safe Life Trainings" were prepared for the public to participate in the disaster preparedness activities conducted within the scope of ISMEP and to build a "Safe Life Culture" and extend this culture; these trainings were put into effect coordinated by Istanbul Provincial Directorate of Disaster and Emergency. In the "Safe Life Trainings", basic and principle concepts about earthquakes, preparation for the first 72 hours and adaptation of proper behaviours during an earthquake is thoroughly explained along with emphasis on the importance of small yet effective measures taken in advance.

On the other hand, in the corporate "Safe Life Trainings," it is aimed to prepare the institutions against a disaster in order to ensure uninterrupted operation and to create disaster-resilient institutions.







One of the most important components of ISMEP in disaster preparedness is public training and raising awareness.

Only when every citizen in Istanbul is ready for an earthquake the city will be ready too.



Safe Life Communication Campaigns

ISMEP places emphasis on preparedness through trainings and aims that citizens in Istanbul from all ages become more aware concerning the disaster. In line with this target, in order to reach every individual, public meetings are held on the streets of Istanbul via campaigns which supply information and awareness organized on August 17th and November 12th, when the public is more focused on the subject commemorating the former earthquakes. The citizens of Istanbul are invited to attend the disaster preparedness trainings under the scope of "One Hour, One Life" concept as "Safe Life Volunteers" and visuals such as "My Mother is My Hero", "My Father is My Hero" are exhibited.

In addition, applications for trainings are recorded in the stands where the communication channels are used. On the other hand, additional activities are being performed through the website www.guvenliyasam.org and public institutions.

Within the cloth bags distributed during the campaign, there are "Tehlike Avı (Hazard Hunt)" books and cartoons, "First 72 Hours After an Earthquake" books, information cards, magnets, informative leaflets and banners.


Safe Life Communication Strategy

In order to raise awareness and confidence in public, a new point of view is created by emphasizing the fact that earthquake is a disaster which is possible to cope with and thus succeeding desire of people is targeted rather than their sense of fear. The communication targets which are directed towards encouraging individuals to become part of the solution are planned as follows:



Artists Became Safe Life Volunteers

In order for the training campaigns to reach wider masses, artists, stage and television actors and politicians have been invited to become Safe Life Volunteers. A group of artists which includes Deniz Gökçer, Levent Üzümcü, Metin Serezli, Serpil Tamur, İlker Ayrık, Selçuk Uluergüven, Nilgün Kasapbaşoğlu and Ayşe Kökçü has become a "Safe Life Volunteers Project Messengers" within the scope of the project which aims to create preparedness through training.





For citizens who wish to be a Safe Life Volunteer and receive trainings, it is possible and easy to apply to and get information about trainings at the website www. guvenliyasam.org

It is also possible to follow the up-to-date announcements about Safe Life in the social media via:

facebook.com/ guvenliyasam.org

twitter.com/ guvenliyasam.org

Safe Life Trainings

During the Safe life Trainings, while basic disaster awareness is provided for individuals, families and institutions, people who are ready for an earthquake on their own premises are being invited to take social responsibility and become one of the "Local Disaster Volunteers" in coordination with Provincial Directorate of Disaster and Emergency.

Safe Life Training led by Governorship of Istanbul, which contains individual and social based preparedness activities against disasters and emergencies are communicated to all citizens in Istanbul.

Safe Life Trainings consist of 3 steps, adopting the slogan "Receive Trainings to Step Forward for Safe Life."

Receive Trainings to Step Forward for Safe Life

The participants who receive the Safe Life-1 training are building preparedness for the first 72 hours after a disaster, which is defined as the golden period. Following this training, in Safe Life-2, a more advanced program is presented including the preparation of a family disaster plan, first aid in disasters, fighting small fires and protection against flood.

Local Disaster Volunteers (LDV) Training, which is the third step of the Safe Life Trainings, is made up of two phases. The participants of this training will attain skills such as identifying the disaster risk of neighborhoods before disasters happen, participating in recovery works after the disaster,



supporting the professional teams and participating in the urban renewal projects.

In the trainings, materials such as "First 72 Hours After an Earthquake, for Individuals and Families" books, information cards, family disaster plan flyers, Safe Life Volunteer participation and evaluation forms, training videos and fire extinguishers are used.



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LDVs Evaluated the Training

Local Disaster Volunteers evaluated the situation before and after the LDV training.

After the training, the volunteers stated:

- Thanks to the training, I have understood that the secondhand knowledge and applications gained so far are so insufficient in fact.
- I recommend this kind of trainings to be repeated continually and periodically. I thank the institutions, organizations and persons for their contributions to this training.
- The concept of volunteering and aiding are important factors in my life. And when it comes to earthquake and similar disasters, it is unavoidable to receive these trainings.
- Even though we had been trained in the safety courses before starting these courses, I have noticed that we have highly upgraded our level.

- I wish these courses to be widespread in many other neighborhoods.
- I also wish the trainings to be repeated once a year at least.
- Theoretical and practical trainings made us comprehend the courses better.
- More people should be made (encouraged) to participate voluntarily.



VISION

According to "State of the World's Volunteerism Report 2011" published by the United Nations, we see one of the most apparent faces of volunteerism in disasters. Volunteers may play critical roles in preparedness, mitigation, response and recovery stages of modern disaster management. Through the Local Disaster Volunteer System developed for Istanbul, it is aimed to constitute well-organized groups, the capabilities of which have been increased for reducing disaster damages, and which can take measures in the areas they live until the professional teams arrive in case of a possible disaster. Therefore it is planned that the preparation works carried out will be improved and made widespread by the participation of volunteers; that the relevant application standards and performance indicators will be determined in the following stages.

Dissemination Model of Istanbul Provincial Directorate of National Education

Within the scope of informing the public and raising awareness among them about basic disasters and being prepared against disasters, moreover in order to ensure the public to become selfaware, trainings are disseminated with the institutional cooperation model by teachers working at the primary and secondary schools in 39 districts under the Provincial Directorate of National Education throughout Istanbul.

Volunteer Teachers Disseminate Safe Life Trainings

A dissemination protocol was signed with Istanbul Provincial Directorate of National Education in order to bring safe life culture to the residents of Istanbul and to make the prepared program widespread and an announcement work covering all the districts of Istanbul was carried out. Within the scope of the project, 94 volunteer teachers working at the primary schools were put to the trainer's trainings which lasted for 3 days.

Through dissemination program, two versions of Safe Life Trainings for kids and adults were prepared.



The training prepared for kids was divided into two levels; first level for the 1st, 2nd and 3rd grades and second level for the 4th, 5th, 6th, 7th and 8th grades.

One of the significant differences of the project was that a database special to this work was created. Teachers could both follow the official correspondences and announcements through this database and receive more rapid feedbacks about the project as they entered into the database the records they got from the trainings. Furthermore, teachers were enabled to focus on only training with the training kits. All other activities were performed by the central project team. Also, the disaster and emergency plans of two more pilot schools were prepared.

Benefits of Planning Works

These disaster and emergency plans prepared for the schools have brought along the following;

- Conformity with the international standards,
- Conformance to the current Civil Defense Plan of the Schools,
- Sample format that all schools can apply,
- Integrated approach also covering the other hazards,
- Conformity of the incident command system and services created with Istanbul's Current Disaster and Emergency Plan.



Within the scope of the project, 94 volunteer teachers, 3,667 teachers, 25,214 students and 8,314 parents were provided with Safe Life Trainings and thus 37,195 persons were reached in total.



Youth from High Schools and Universities Are Being "Voluntary Delegates"

To internalize safety life culture among all sections of the society and to increase especially the youth's awareness is critically important in terms of disaster readiness processes.

The capacity enrichment of safe life culture achieved via the youth constituting the most dynamic and vivid section of the society can help safety life culture to be disseminated and transformed into a societal behavior pattern. By the help of the project initiated under the scope of ISMEP called "Dissemination of Safe Life Trainings in High Schools and Universities" it is aimed to have the young people aged between 15-26 to be acknowledged and conscious regarding the precautions against disasters.

In the meantime, along with the adapted application of e-teaching for earthquake readiness in Istanbul, "Safe Life Culture" is targeted to be created and disseminated all around the city. According to the project, expansive and e-education models will be common in high schools and universities. The common trainings to be realized in the high schools will be guided by volunteer teachers' participations.

In the case of universities, peer model will be followed in the trainings.

In addition to common traininigs, in reliance with the e-education methodology, learning by "doing" and "living" is going to be adopted in order to have the information permanent.

For the current education year to be commenced on September 2014, by the help of 220.000 "Voluntary Delegates" safe life culture is aimed be disseminated through the society.

39 DISTRICTS SCHOOLS

PREPARATION OF DISASTER AND EMERGENCY PLANS PILOT PROJECT

Preparation of Disaster and Emergency Plans Pilot Project for 39 Districts and 39 Schools

The project initiated in 2014 will be implemented in the schools of which the structural resistance have been increased as a result of reconstruction and retrofitting undertaken by ISMEP.

By the help of this Project planned to be implemented in 39 education establishment being chosen one from district all over Istanbul;

- Planning and readiness works to be completed within the framwork of integratd disaster management principles,
- Making schools a safe habitual environmental for the students, teachers, administrative personnel and parents altogether,
- Enhancing and developing educational foundations' capacity of disaster and emergency planning
- Maintaining sustainability in education during disasters and emergencies is aimed to be achieved.

For the project to be implemented in guidance with th international regulatory standards and the legislation in Turkey, assessment of hazardous threats, analysis of risks, planning of delivery and management of resources in guidance with disaster management's principles and objectives will be successfully realized.

By the end of the project, teachers, students and parents would develop the ability and capacity to cope with disasters especially with earthquakes and consequently a disaster plan covering a to-do-list prior to, during and after disasters will be framed by school management's contribution.

Community Training Modules

In parallel with the awareness raising activities through which the right types of behavior are taught to be prepared against disaster risks as a community; 15 different training modules were prepared under the ISMEP and strategies to enable dissemination and continuity of these trainings were developed. Each training module is composed of the following contents;

- Book
- Banner
- Brochure
- Information card
- Trainers' presentation files
- Communication strategy
- Dissemination strategy



First 72 Hours for the Individual and Family in an Earthquake

This training program teaches what we may experience during the first 72 hours called "golden period" after earthquake and what measures we can take against them before earthquake.



First 72 Hours for Disabled People in an Earthquake

This training program, which is of great importance for disabled persons and teaches what we may experience during the first 72 hours called "golden period" after earthquake and what measures we can take against them before earthquake is specially prepared for each disabled group.



Disaster Emergency Aid Planning Guide for Educational Institutions

Continuance of education is very important as well as ensuring the security of life and property against any disaster and emergency. This training program involves the basics and examples relating to the works required to be performed about the disaster emergency planning at the educational institutions.



Disaster Emergency Aid Planning Guide for Industrial and Working Places

All segments of the society, enterprises in particular, are responsible for taking the necessary measures against an earthquake that may turn into a disaster. Otherwise we may have major losses of life and pay high costs. This training program provides the basics and planning steps for enterprises to eliminate the losses that may arise.



Disaster Emergency Aid Planning Guide for Healthcare Organizations

This training program covers the basics and the necessary steps about how to be prepared against disasters and to arrange the support resources in order to ensure the security of life and property and the business continuity at healthcare organizations.



Psychological First Aid in Disasters

This training program shows to the officials and volunteers authorized in disasters how to deal with the psychological breakdown symptoms that disasters create.



Compulsory Earthquake Insurance Awareness

This training program prepared for the purpose of raising the awareness of compulsory earthquake insurance examines the "Natural Disaster Insurance", which is one of the ways of protecting our houses against earthquake risks.



Structural Retrofitting Against Earthquake

This training program informs about structural retrofitting works to be applied in a building damaged as a result of an earthquake or the carrier system of which was determined to be inadequate before the earthquake.



Structural Risk Mitigation Against Earthquake

This training program which aims to inform the individuals about the design and construction requirements of earthquake resilient buildings discusses the issue of requesting more qualified buildings.



Non-structural Risk Mitigation Against Earthquake

This training program involves the information on reduction of the risks that may arise from commodities likely to fall down and slide or tumble down in case of an earthquake.





Survival Under Extraordinary Conditions

This training program, dealing with the Survival Under Extraordinary Conditions shares the information and skills about how to meet the vital needs.

Disaster Preparedness for Local Disaster Volunteers

Program involves guiding information for Local Disaster Volunteers, who are organized in groups having the possibilities and capabilities sufficient for the first response within the period until the professional teams arrive in case of an earthquake, furnished with necessary training and equipment, and whose disaster sensitivity and awareness are raised.



Urban Planning and Construction for Disaster Mitigation for Local Decision Makers

Training Manual for Urban Planning and Construction for Disaster Mitigation for Local Decision Makers is prepared for local decision makers in order to raise the awareness of society about measures that can be taken before disasters to reduce the disaster damages and to make the society a part of the urban planning process. This way, it is introduced what can be done by local decision makers for disaster preparedness within their responsibilities.



Urban Planning and Construction for Disaster Mitigation for Technical Staff

Training Manual for Urban Planning and Construction for Disaster Mitigation for Technical Staff is prepared for technical staff for the purpose of raising the awareness of society about measures that can be taken before disasters to reduce the disaster damages and making the society a part of the urban planning process. This way, it is introduced what can be done by technical staff for disaster preparedness within their responsibilities.



Urban Planning and Construction for Disaster Mitigation for Community Representatives

Training Manual for Urban Planning and Construction for Disaster Mitigation for Community Representatives is prepared for community representatives for the purpose of raising the awareness of society about measures that can be taken before disasters to reduce the disaster damages and making the society a part of the urban planning process. This way, it is introduced what can be done by society representatives for disaster preparedness within their responsibilities.

Works Performed at Schools within the Scope of ISMEP

In the project; works such as informing the students, parents and school managers about the retrofitted schools with the contributions of the Ministry of National Education and the theatre play called "Rocking Chair" regarding what to be done before, during and after a disaster is performed in various schools.



Social Counselling in the Retrofitted Schools

Briefing, awareness raising and social guidance against an earthquake are provided at the retrofitted schools within the scope of ISMEP. All parties (school managers, parents, teachers and students) to be influenced from the retrofitting works through trainings are informed. Objectives of the social counselling by which 260.744 people are taught to benefit from include sharing information about the works to be done at schools and raising awareness towards improving the parties' duties and responsibilities and the preparedness capacity of the community against disasters within the process.

The following questions are answered through the works informing teachers, students and parents;

- What is retrofitting?
- How is retrofitting decision made?
- What is the main purpose of retrofitting works?
- What operations are made in buildings with retrofitting?
- Why is the retrofitting of schools so important?
- How will our school be reinforced against earthquake?
- How long will the works take? Will the education be
- interrupted?How can we support
- How can we support our children?

2009	
Retrofitted schools	: 85
Host schools	: 90
Trained people	: 85.495
2010	
Retrofitted schools	: 118
Host schools	: 98
Trained people	: 88.315
2011	
Retrofitted schools	: 54
Host schools	: 55
Trained people	: 30.841
2012	
Retrofitted schools	: 35
Retrofitted schools Host schools	:-
Retrofitted schools	: 35 : - : 14.340
Retrofitted schools Host schools	:-
Retrofitted schools Host schools Trained people	:-
Retrofitted schools Host schools Trained people 2013	:- : 14.340 : 37 : 24
Retrofitted schools Host schools Trained people 2013 Retrofitted schools	:- : 14.340 : 37
Retrofitted schools Host schools Trained people 2013 Retrofitted schools Host schools	:- : 14.340 : 37 : 24
Retrofitted schools Host schools Trained people 2013 Retrofitted schools Host schools Trained people	:- : 14.340 : 37 : 24
Retrofitted schools Host schools Trained people 2013 Retrofitted schools Host schools Trained people 2014	:- : 14.340 : 37 : 24 : 8.728



Rocking Chair, Teaching While Entertaining

The theatrical performance "Rocking Chair" is aiming to raise the awareness of primary school students against disasters including earthquake as well as the awareness of children beginning from early ages. The play which is spectated by 149.286 students showes the correct behavior models during an earthquake such as "Drop-Cover-Hold on" and prepares the students against disasters. "Rocking Chair" teaches the students how to prepare a disaster bag with their families and to create a safe environment in their houses, while entertaining them.

Years	Number of School	Performance	Student
2010	10	50	6.560
2011	99	316	52.043
2012	135	414	51.019
2013	120	360	39.664



Children Test Their Knowledge with the Labyrinth Game of Hazard Hunt

Children are provided with the basic awareness of disaster with the three dimensional game "Labyrinth Game of Hazard Hunt" specially prepared for the project. In the game where the goal is achieved by giving correct answers to the questions, children both become self-aware of what to do before, during and after an earthquake and enjoy themselves.





Virtual Platform for "Little Volunteers"

A virtual game platform where children can test their knowledge and what they learn on earthquake is prepared. Little volunteers who can perform these tests on Internet can test themselves and see the points they get. Children who can successfully complete the test become entitled to receive the "Safe Life Volunteer's



Certificate of Appreciation." The website can be accessed at www.guvenliyasam.org/tehlikeavi.

VISION

Taking Steps towards Future with Confidence

Quite comprehensive knowledge and experiences have been gathered on matters such as campaigns, dissemination models of public trainings during the works carried out since 2007.

In Istanbul, the awareness raising and training activities are planned to be continued at full speed with creative practices ensuring participation such as e-trainings, competitions between schools for the purpose of transforming the disaster risk and damage reduction works into a life culture.

It is among the short-term goals of the project to develop a disaster volunteerism system for Istanbul in order to ensure all these preparations to be carried out in coordination and to evaluate the potential of society the most effectively.

With this project, the pilot works of which is still ongoing, it is aimed that the institutions working on disasters, and the trained individuals and groups who want to work voluntarily will make their contributions to the works within an organized structure.

Also University Students Provide Training

With the project which makes university students one of the partners of ISMEP, it is aimed to disseminate and ensure sustainability of the disaster preparedness trainings. Political and International Relations Club Volunteers of Yıldız Technical University started to carry out disaster preparedness trainings in the pilot neighborhoods chosen throughout Istanbul with the Safe Life Trainer's Training they received.

20 volunteer trainers gave Safe Life 1 Training to 1.357 people in 33 sessions.

Depreme karşı **bir saat, bir hayat**

Onlar için, onlarsız geçireceğin 1 saatle sevdiklerinin hayatını koru.

Sadece bir saat süren **Güvenli Yaşam Eğitimi**'ne katılarak deprem ve diğer afetlerde sevdiklerini nasıl koruyacağını öğrenebilir, evinde ya da işyerinde temel önlemleri alabilirsin.









Disaster Resilient City: Transforming Istanbul

Projects are being implemented in order to activate urban planning and construction processes intended for mitigation of disaster damages in Istanbul and to raise the public knowledge and awareness. Building Construction Permit and Audit Processes in Bağcılar and Pendik Pilot Municipalities are Improved

Works carried out by ISMEP with the slogan of Safe City Safe Life are applied in Bağcılar and Pendik pilot municipalities.

The work comprises the arrangement of geographically based data for installation of the city data system and the integration of this data with the non-spatial data. Therefore title deeds, liences, declarations, the documents in the digital zoning archive are match up with numbering data.

At the same time, infrastructure works for the installation of documentary management system, service desk and call center to organize the work flow within the related directorate and between the directorates and to increase the capacity of rendering better service for citizens at the municipality are carried out.

Pendik is the First Municipality to Receive "ISO 27001 Information Security Certificate"

In this scope, the data processing infrastructure of municipalities is strengthened and made fit for the ISO 27001 Information Security Management System Standard. Bağcılar and Pendik Municipalities have become entitled to receive the ISO 27001 certificate which is owned by only 2000 organization in the world and 19 institutions in Turkey at the end of the autonomous audit. In this context, the risk analysis has been made and the both municipalities have taken the measures necessary for ensuring the business continuity.

Bağcılar and Pendik municipalities were chosen taken into consideration that they both hare situated on first degree seismic zone, hosts the substantial part of the migration movement, the project requirements necessitate mitigation of population growth rate, highly populated slum areas, dangerous production and storage plants and the disaster damages overall.



Pendik Municipality is the first municipality receiving the ISO 27001 Certificate.



Pendik Municipality City Guide display image

Construction Permit Licence Process Have Decreased From 3 Years to 10 Days in Pendik

With the works carried out, construction permit licence process has accelerated and become effectie, thus the construction permit licence process has been decreased from 3 years to 10 days for the companies which have completed the documents properly.

Installation of Address Information System and Digital Zoning Archive Works

Within the process of changing to the digital archive, the documents and certificates relating to all the buildings in Bağcılar and Pendik districts were examined one by one. The structural stocks of the both districts were examined during the work. All documents such as zoning plans, building licenses, audit reports used by the municipalities in daily services are ordered and digitalized.

During the work, 3 million 80 thousand documents were scanned and indexed under 70 titles. So, the municipality employees can have access to files on their computers in a shorter while without the need for getting them physically. The address information system was integrated into the national address registry system.

Convenience for Citizens and Municipalities: Document Management System

Numbering Works for Installation of Digital Address Information System

Bağcılar Municipality	Pendik Municipality
94.000 exterior doors were numbered	58.809 exterior doors were numbered
235.000 interior doors were numbered	200.000 interior doors were numbered
20.000 work places were numbered	8.900 work places were numbered
138.000 exterior doors were photographed	150.000 exterior doors were photographed
10.000 back doors were numbered	4.000 back doors were numbered

Digital Zoning Archive Works

Bağcılar Municipality	Pendik Municipality	
Scanning 70 different documents	Scanning 70 different documents	
Scanned files: 91.000	Scanned files: 47.000	
Scanned documents: 2.300.000	Scanned documents: 1.500.000	
Indexed documents: 1.800.000	Indexed documents: 1.500.000	



With the documentary management system signed by the both municipalities, documents were digitalized. In this system, citizens can make the municipality transactions online and follow all the stages with their TR ID numbers, thus a paperless environment is created.

Call Center

A call center and communication center which complements the works carried out within the scope of e-municipalism were installed in the municipalities. With these centers, all applications of citizens were recorded, thus the requests and complaints were enabled to be met on time and the correct information about municipality services was given.

Safe City, Safe Life Trainings

With these trainings, it is aimed to make a contribution to the urban disaster preparations and to create safe settlements. Safe City, Safe Life Trainings have the versions for local decision makers, technical staff and community representatives. Participants are informed about reduction of disaster damages and city planning, safe settlement criteria and how they can make a contribution thanks to these trainings. Also they create suggestions for the district they live in with site and desk works.

The trainings carried out in Bağcılar and Pendik Pilot Municipalities were attended by 744 persons composed of principals, teachers, doctors, imams, civil society leaders and neighborhood residents as well as local decision makers and technical staff.

After the trainings, "Round Table" meetings attended by all relevant parties were held and the training outputs were evaluated. Suggestions relating to the measures that can be taken against disaster risks were submitted. The evaluation report prepared was included in the strategic planning works of the municipalities.

It is aimed to disseminate the trainings in other districts by raising awareness of this issue with community trainings as well as improving the license and zoning processes in local governments.

Civil Engineers Receive Special Trainings

One of the ISMEP's training activities carried out under Component C is intended for increasing the knowledge of civil engineers relating to the "Regulation for the Buildings Constructed in Earthquake Zones."

Within the scope of this work, training programs and training materials were prepared and trainings for the engineers and trainers have been completed.



So far, the informative trainings for 3,631 engineers about the "Regulation for the Buildings Constructed in Earthquake Zones" have been completed.

Disaster Resilient Urban Planning and Construction

As a result of the works done, the results obtained by the pilot municipalities are as follows;

- Faster and standardized work processes
- Increase in service quality offered to the public
- Effectiveness in tracking and evaluation works
- Trained employees trained society

VISION

Urban Regenaration Works

Project management aims to complete an urban regeneration considering participatory mentality, advanced financial and economic models, an aesthetic point of view, the leading role of the public and innovative models.

Application Steps:

- Analyzing and choosing suitable models
- Determining empty urban areas
- Creating scenarios
- Participation of the public and awareness raising
- Carrying out the urban regenaration projects

We are Protecting Our Cultural and Historical Heritage

Projects aim to mitigate the seismic risks threatening the cultural and historical heritages in Istanbul in order to increase their capacity against earthquakes.

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Buildings Within the Scope of the Project

Monumental Buildings	Libraries and Educational Buildings	
Hagia Irene Monument	Atıf Efendi Library	
İmrahor Monument	Beyazıt State Library and Imaret Building	
Anadolu Fortress	Beyazıt Orhan Kemal Provincial Public Library	
Rumeli Fortress	Çinili Children Library	
Yedikule Castle	Fatih Millet Library	
	Süleymaniye Manuscript Library	
Museums	Selimiye Public Library	
Archeological Museum Complex	Selim Ağa Manuscript Library	
Hagia Sophia Museum	Mihrimah Sultan Complex	
Fethiye Museum	Heybeliada Public Library	
Kariye Museum	Ragıp Paşa Library	
Palace Mosaics Museum	Şemsi Paşa Library	
	Büyükada Public Library	
Palaces, Administrative Buildings and Hospitals	Galata Dervish Lodge	
Darphane Building		
İbrahim Paşa Palace	Civil Architecture	
Topkapı Palace Complex	Atlas Apartment	
Yıldız Palace Complex	Recep Peker Traditional Wooden House	
Alay Kiosk	Selçuklu Traditional Wooden House	
Matbaa-i Amire	Seyran Apartment	
Gülhane Stable House	Sümerbank Building	
Gülhane Teşvikiye Hospitals	Şerifler Waterside Traditional House	

Evaluation of Cultural Heritage Inventory and Earthquake Performances

The project is composed of main stages of literature review, site work, restitution project, seismic risk assessment and damage mitigation measures and Geographic Information Systems (GIS) database formation.

176 buildings situated in 26 complexes where structures such as Topkapı Palace and Yıldız Palace are located were evaluated and transferred into a special database. The database involving the information from the Ottoman archives was delivered to the Ministry of Culture and Tourism. This database offering comprehensive information such as drawings, photographs, analyses etc. compiled from different institutions in a transparent form is accessed by universities, institutes, etc. and other beneficiaries.

Model Projects

Within the historical buildings of which the inventory and seismic risk assessments have been completed, Archeological Museum Complex, Hagia Irene Monument and Mecidiye Kiosk within the premises of Topkapı Palace Complex all different from each other in terms of structural and periodical features have been chosen to set examples for the retrofitting and renovation projects to take place in future in order to develop structural retrofitting project proposals to protect every historical building against earthquakes.

The projects proposed for Mecidiye Kiosk and Archeological Museum Complex have been approved by the Reservation Board within General Directorate of Cultural Heritage and Museums.

By the help of accurate planning concerning retrofitting and renovation works to take place in Archeological Museum Complex, the second phase is in progress and visitor traffic is not interrupted at all.



Mecidiye Kiosk



Archeological Museum

Yesterday, Today and Future of Istanbul with ISMEP

Starting its works to protect and to conserve the cultural heritage of Istanbul and carrying out these works by including the relevant international developments on this issue in its vision, ISMEP also continues its integrated disaster management approach applied in other sub-projects.

Within the scope of ISMEP, the following issues are focused; inclusion of the international environment protection standards in reinforcement works, training of the public on protection of historical buildings and conservation of cultural heritage, preparation of the disaster and emergency plans of the structures within the scope of the cultural heritage and the disaster management planning of Istanbul and ensuring integration in city disaster information system and awareness raising and protection works.

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Organizations

At the Conference on Seismic *Risk Mitigation attended by* the speakers from various places of the world and *held with the cooperation* of the Disaster and **Emergency Management** Presidency of the Prime *Ministry, the Prime Ministry Undersecretariat of* Treasury, the Governorship of Istanbul and with the support of the World Bank, national and international works including ISMEP in particular were discussed in detail.

> In the conference which had taken place in Istanbul Grand Cevahir Hotel on 8-10 December 2009, more than 1.000 people have participated from over 27 countries. Relevant ministries, national and international academic members, 81 governorships, disaster and emergency directorates, representatives from NGOs, public and private sectors along with local directors from Istanbul have gathered in the conference. On the last day of the conference, exploration tours have been arranged for the participants to see the sites referred under the scope ISMEP works.



International Conference on Seismic Risk Mitigation, Istanbul 2009

In the international conference; information sharing between partners about the international, regional and bilateral active collaboration was targeted in order to take a step for reducing the seismic risk in urban areas by bringing the national and international works together and sharing knowledge and experiences with the countries.





Istanbul Meeting of Safe City Safe Life, 2009

"Safe Life Volunteering Project" had been introduced in the organization taken place in Istanbul Cemal Reşit Rey Concert Hall. Ministries, central governors, provincial district officials, Istanbul Metropolitan Municipality, search and rescue teams, national education offcials, health officials, regional directorates, disaster relevant foundations, NGOs, universities, consulate officials and media representatives adding up to approximately 1.000 people have participated in the meeting which took place on 14-15 August 2009.

The conference realized under the theme "Urban Preparedness and Society Training" aimed to prepare Istanbul for prospective disasters, to create preventive culture, to disseminate awareness and to share the completed works with all shareholders.







Internatioanl Disaster and Risk Conference

The fourth International Disaster and Risk Conference (IDRC) had been held in 2012 in the international conference center located in Davos, Sweden.

For the global gathering taking place between August 26-30, over 1000 participants from more than 100 different countries have taken place.

ISMEP being the first risk mitigation project of Turkey had been represented successfully in the conference realized under the guidance of United Nations Environment Programme (UNEP), United Nations Education, Culture and Science Organization (UNESCO), United Nations International Strategy for Disaster Reduction (UNISDR) and International Labor Organization (ILO). ISMEP stand had been the center of attraction from the first day on. The participants occupied with risk mitigation all around the world appreciated the risk mitigation implementations carried out in Istanbul.

A lot of participants have visited the ISMEP stand in order to get information, cooperate and get models to implement the projects in their own countries.







Preservation of the Cultural Heritage

ISMEP continues to work and contribute on Preservation of Cultural Heritage. In this context, preparatory work for "Preservation Regulations for Turkey" and "International Symposium on Cultural Heritage Protection in Times of International Risk: Challenges and Opportunities" have been held.

Four workshops have been held in order to prepare "Preservation Regulations for Turkey" regarding "Architectural Preservation and Restoration" to implement a model applicable both in national and international level aiming to mitigate conditional risks threatening historical and cultural heritage, to share short and intermediate term based plans and to develop resolution proposals along with signature of "Istanbul Riva Charter" which is within the scope of Turkey's Architectural Heritage Preservation Charter.

"Preservation of Cultural Heritage in International Risk **Conditions: Opportunities** and Threats Symposium" had been held in Davutpaşa Campus of Yildiz Technical University on November 15-17 2012 under the cooperation of Istanbul Governorship Project Coordination Unit (IPKB), Yildiz Technical University and International Council on Monuments and Sites -International Committee on Risk Preparedness (ICOMOS-ICORP). The symposium programme was intended to be wide-ranging in order to handle all discussions and proposals regarding wars and local clashes, large scaled projects ignoring the cultural heritage, effects of the mass tourism, legal regulations not focused on cultural heritage and proposals were discussed to mitigate the direct and indirect risks.

Among which ICOMOS-ICORP members, World Bank Urban Cultural Heritage Coordination and United Nations International Strategy for Disaster Reduction (UNISDR) representatives were also present, 450 people have attained the symposium from 36 different countries where 48 oral and 33 poster presentations were made.

On November 16 2012, which is the 40th commemoration day for the signature of World Heritage Agreement, "Istanbul Statement on Cultural Heritage Protection n Times of Risk" was read which is going to be recalled as "Istanbul Statement-2012" on the closing session.



2014 Conference of Society For Risk Analysis-Europe Conferences Series Have Been Held in Istanbul for the First Time on June 16-18 with ISMEP's Contributions

The 23rd of the Europe Conferences series which was founded by Society for Risk Analysis in 1980 have been held in our country hosted by Istanbul Technical University thanks to the contributions of ISMEP.

The three day long conference of which the main theme was "Analysis and Governance of Risks Beyond the Boundaries" have been attained by representatives from academy, public and private sector who are experts on risk analysis, risk management, risk perception and risk communication. The purpose of the conference which proved Turkey and Istanbul as an important component of the risk mitigation projects in Europe was to achieve an interdisciplinary platform for science people to discuss on assessment and mitigation of different kinds and scales of risks and to take preemptive measures for the future.

World wide known, appreciated and granted as the biggest risk mitigation project, ISMEP's works, outputs and targets were discussed thoroughly. Information sharing regarding ISMEP have faciliated contribution to;

- National and international information sharing to be realized
- Support for institutional shareholders
- Enhancement of all foundations and organizations's capacity to manage risks
- Expansion of enthusiasm and effects of the conference followed by competent academicians, private and public sector representatives.





Istanbul Safe Life Volunteering System

One of the most important steps of Istanbul Safe life Volunteering System founded under the sope of ISMEP is the Istanbul Safe Life Volunteering System Workshop realized on July 2-3 2013.

Concerned non governmental organizations, universities, local administration representatives, ISTAMP service group leaders and representatives adding up to 175 people have attained the two day long event.

In the first day of the workshop, "Working Methodology, Accreditation and Standardization" was handled and "Voluntary Functionality" practices were made and on the following day group works themed "Volunteering Basic Principles and Definitions" were organised and the results were shared at the end. With Istanbul Safe Life Volunteering System to operate in full conformity and coordination with ISTAMP it is aimed to determine the voluntary resources to be included in the plan, to enhance the efficiency of voluntary capacity in mitigation, preparation, response and recovery phases and to improve the institutional capacity of risk management.





Letter to 2060

That day was a tragedy. Everywhere was dark, I was so scared. I could feel everything around me. I was looking for my mother and father but they were not there. I could see neither of them. Everywhere was covered with dust cloud, there was no one to look after me. Everybody was moaning with pain outside. Then I understood that you had nobody other than yourself. I was in a hole for hours. I was screaming but it was so loud outside that nobody could hear me. I did not have even a drop of water. I heard my mother's voice. It was coming from above. I felt a little happy but I was alone. I was cold, when looking around I heard the crying of a baby somewhere near. I was trying to look for the baby but I couldn't move. Finally they took me out. I couldn't even feel happy because I thought about that baby. I was so sad because I left that baby alone there. But then he was saved as well. I was with my family. My mother's balmy arms made me warm. Everybody in the baby's family died. I told my mother that I wanted us to adopt the baby. They did not refuse me and have adopted him.

I jumped off my bed and I was so scared. I was sobbing. Ayşegül woke up because of my sobbing and I told her my dream. She told me that it was a nightmare and consoled me. We immediately went by our mother. I also told her my dream. She told me that earthquake is a fact of life. We went to the living room with my mother. She told us that earthquakes did not kill people but unsettled and illegal buildings did so. We went to our room with Ayşegül. We began to gather information about whay my mother said to us.

Dear grandchildren,

What we told above may seem like an imaginary tale to you. But the year 1999 when we were born was painful times for our country; because the catastrophic Marmara earthquake occurred in August and Duzce earthquake in November. My mother became a Civil Defense Volunteer in those years, obtained information about these issues and trained the people around her. We told her that we wanted to be volunteers, too. Then she took us to the Safe Life Trainings of ISMEP.

So we became Safe Life Volunteers too. These trainings taught us that we should not live in unsettled and illegal buildings, and the places such as public institutions, hospitals, schools etc. should be constructed on a solid ground and with proper materials. We also learnt that big commodities that may fall down in houses should be fixed and we need to make individual preparations. They taught us that municipalities, government companies and even universities should do their part completely.

While "you" are reading this letter in 2060, you may laugh. But we are the children of those years. Now nobody lives in unsettled and illegal buildings. Houses are constructed with proper materials and in a solid manner. When you look around, there are many Safe Life Volunteers. Trainings are provided even in nursery schools. You know what Safe Life means and act according to this.

Now the names of many of your grandfathers are Ümit, Umut and Can*. If you ask yourself why these names were given, it is because after the Marmara earthquake of the year 1999, it was hoped that these names would bring hope, joy and health to people. We embrace and kiss you...

Twins Oya Zeynep SÖZER Gönül Ayşegül SÖZER Safe Life Volunteers

Ayşegül and Zeynep prepared this letter for Safe Life Volunteers by using the compositions they wrote as homework after Van earthquake dated 23th October 2011.

* Means "Expectation", "Hope" and "Life".



Known as the capital of capitals, ruling Roman Empire first , then Eastern Roman Empire and continents and created great geographical areas full of peace, being the capital of the Ottoman Empire, Istanbul moves forward while protecting the magnificence of the past with pride. Diversity in Istanbul is really charming for the visitors. It offers never-ending colors with its museums, churches, palaces, mosques, market places and natural beauties.

The best monuments of the city are situated on the peninsula between the Golden Horn, the Sea of Marmara and the City Walls. Becoming the symbol of Istanbul with its six minarets and called "Blue Mosque" due to the blue tiles used in decoration, Sultanahmet Mosque is worth seeing. On the opposite side, there is famous Hagia Sophia Museum built as a church in the time of Emperor; this structure being an example of architectural craftsmanship is embellished with delightful mosaic panels which depict the Jesus and the Virgin Mary and emperors.

Viewing these two wonderful monuments on another hill, the Mosque of Suleiman the Magnificent is the zenith of the Ottoman architecture.

Istanbul is also a city where historical buildings meet with new ones and are renewed. While the Grand Bazaar insists on bearing the traces of the romantic days of the past with labyrinth-like structure, it also lays bare the brand new products of the modern world.

A ferry trip on the Bosphorus becomes one of your unforgettable memories. Waterfront residences on the both shores of the Bosphorus, luxurious villas built in the 20th century, Dolmabahçe, Göksu and Beylerbeyi Palaces, Rumeli and Anadolu Fortresses and, traces of fishing villages, restaurants, tea gardens and parks are utterly charming.

In addition to its matchless history and cultural past and indefinite attractions; modern hotels, exceptional restaurants, cabarets, historical bazaars and markets make Istanbul a perfect location for conferences and congresses.

Istanbul is one of the limited number of cities which maintain being the economic center of every period as well as being the capital of three empires. Although the city is not the political capital of the new republic founded in 1923, it has always been the economic capital and never lost its position which shapes the destiny of the country.

It is one of the few cities where the concepts of "Art and City" match with each other this much. In a city which is an art itself with natural and historical beauties, art is certainly of great importance. Events such as theatres, cinemas, concerts, exhibitions, discourses, poem performances, etc. and art galleries where the works of the world famous artists are exhibited are remarkable for their demonstrating the place and significance of art in Istanbul.

ISMEP GUIDES

ISMEP continues to share knowledge and experience accumulated via the guides. Expertise knowledge, good sample applications and intellectual accumulation add up to knowledge production in modern societies. However, the value of the knowledge depends on the ability to disseminate it to actually present and potentially future target populiation.

For that reason, printing and spreading the unmatched knowledge outcomes is among the most important responsibilities of the institutions and the society. In this regard, ISMEP Project treated as one of the best implications worldwide have prepared ISMEP Guides Series in order to acknowledge and lead decision makers and other beneficiaries.

Along with the actual project processes, realist, applicable suugestions are covered in the guides series which in each volume experiences are shared in order to support project application capacity with disaster risk assessment and management.



Depreme karşı **bir saat, bir hayat**

Onlar için, onlarsız geçireceğin 1 saatle sevdiklerinin hayatını koru.

Sadece bir saat süren **Güvenli Yaşam Eğitimi**'ne katılarak deprem ve diğer afetlerde sevdiklerini nasıl koruyacağını öğrenebilir, evinde ya da işyerinde temel önlemleri alabilirsin.









