


ISMEP

Istanbul Seismic Risk Mitigation and Emergency Preparedness Project

ISTANBUL

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Published in the scope of
"Istanbul Seismic Risk Mitigation and Emergency Preparedness Project" (ISMEP)
conducted by Governorship of Istanbul,
Istanbul Project Coordination Unit (IPCU) ISMEP Guide Books
have been prepared by Beyaz Gemi Social Project Agency.

June 2014, Istanbul

Executive Bodies

Governorship of Istanbul

Istanbul Provincial Disaster and Emergency Directorate (Istanbul DED)

Istanbul Project Coordination Unit (IPCU)

We thank to the employees of both Istanbul DED and IPCU for their contribution in the preparation of this book.

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Historical Peninsula

Introduction

With ISMEP We Have Access to Whole of Istanbul

Being aware of the fact that we as a society live entangled with disasters, our target is to develop Safe Life Culture in the society, accelerate training operations and make such operations widespread in every part of the society.

Even if it is not possible to prevent occurrence of the disasters, it is in our hands to minimize the possible damage they may lead to and even completely eliminate some of them.

As an outcome of such perception we are pleased and honored to share with you this publication under Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP), which is cited among the best applications worldwide.

For Istanbul, a city located at the first degree seismic zone, the projects aims at making the city and each inhabitant of it prepared against the disasters in all respects and enhance capacity in terms of individual, structural and environmental sense.

We expect to have access to every part of Istanbul in a long period by means of ISMEP in such a way to activate all potential of the city with the involvement of professionals from a number of disciplines from every part of the world in a versatile, integral and participatory way.

Management of such a comprehensive project on site and its line of management should set an example nationally and universally. As it is, World Bank introduces the project as "best risk reduction project worldwide".

ISMEP also puts forward important values through protection of our historical and cultural heritage and conveyance of the modern training structures and health facilities we build.

Being aware of the fact that we as a society live entangled with disasters, our target is to develop Safe Life Culture in the society, accelerate training operations and make such operations widespread in every part of the society.

With warmest regards,

Hüseyin Avni Mutlu
Governor for Istanbul

ISMEP: For Future of Istanbul

Kazım Gökhan Elgin

Director, Istanbul Project Coordination Unit (IPCU)

While we continue our operations today in line with our vision and targets, we increase our information background.

Now we have achieved much with respect to risk management and, moreover, we have background of information and experience to share.

Today Istanbul, the biggest city of our country and one of the numerous megacities worldwide with its population about 15m is face to face with earthquake and other disaster risks. Located at a significant seismic zone and experienced earthquake many times in the history, Istanbul has prepared against a possible earthquake since 2006 on basis of a project setting an example for the world.

Prevention of nature-sourced disasters such as earthquake has never been possible at any point in history. However, thanks to accumulation of information and experience both in national and international sense, now it is widely recognized that it is possible to be prepared against the disasters and minimize their effects.

Making our habitats resistant against such disasters and reducing effects of the disaster evidently precludes possible property damages and loss of life to a significant extent and it is also evidenced by scientific proofs.

As a result of Istanbul Earthquake Master Plan drawn up in 2003, an earthquake in a destructive magnitude is anticipated in a near future.

Occurrence of such an earthquake in Istanbul, densely populated and additionally being a center of finance, culture and economy, will deeply affect economic and social life of the country as a whole. Consequently, we are quite aware that we should deal with Istanbul with a comprehensive vision comparable to its size. We should leave behind the approach of recovery after actual occurrence of the disaster and switch to an understanding of being prepared and take precautions; and in this context we should talk about how we should prepare, instead of the earthquake itself.

We mention that mentality has changed in Turkey, from the crisis management to the risk management. First of all, we, as a project team, have trained ourselves during this process.

By familiarizing with the matter, getting knowledge, gaining experience, witnessing the operations performed nationally and internationally and getting our share from such flow of information, we eventually improved ourselves. Each year we added new information to our background. At the beginning of the project, it was not possible for us to see the point we have now arrived; however, we knew and believed that the way we followed was right.

While we continue our operations today in line with our vision and targets, we increase our information background.

Now we have achieved much with respect to risk management and, moreover, we have background of information and experience to share.

We have compiled 8 guide books to reflect the said experience we have gained through the process of ISMEP. We aims at sharing our experience with the local and international organizations that intend to implement similar projects in their cities.

Our greatest purpose is that the books we have prepared about "Retrofitting and Reconstruction Works", "Disaster-Resilient Urban Planning and Structuring", "Disaster and Emergency Prevention Response and Recovery Plan (ADMIP)", "Enhancement of Social Capacity and Public Trainings", "Protection of Cultural Heritage", "Enhancing Emergency Preparedness", "Reduction of Urban Risks" and "ISMEP" may enlighten all experts in this field.

By our strong belief that we could look at future safely with ISMEP and our target to have access to Istanbul entirely in individual, structural and environmental sense, we share with all citizens and stakeholders our pride to make our city prepared against disasters by means of this project.

Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP)

By ISMEP, conducted by the professional from different disciplines through an international perspective and technical capacity, we aim at making the city and every inhabitant of it prepared against earthquake in parallel with other disasters that may occur.

A cultural, economic and industrial center, Istanbul is characterized as the biggest metropolis in our country due to is significance in the terms of its geographical position, population, use of settlements, social structure and its place in the national economy.

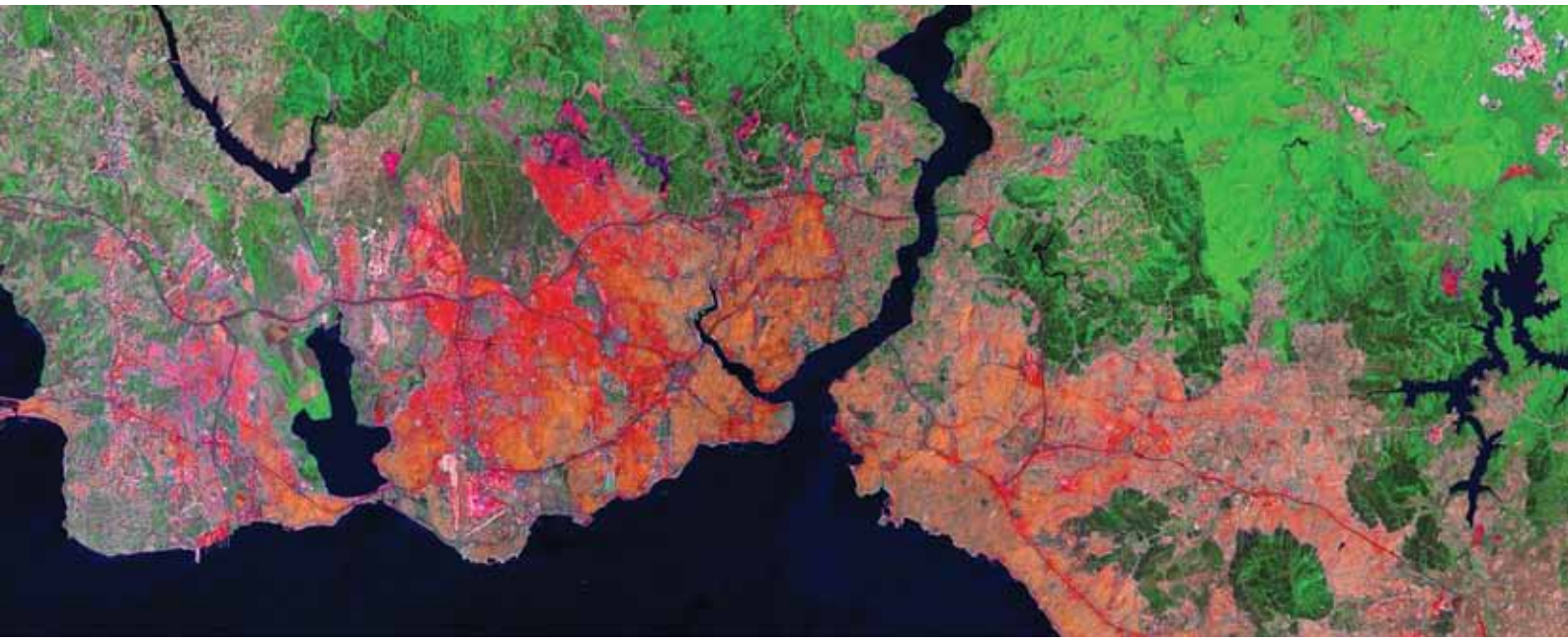
Additionally, it is also highlighted in the disaster plans drawn up for the city that it is subject to high seismic risk due to its position near North Anatolian Fault Line that may result in an economic loss above 50 billion dollars, great amount of loss and damage in terms of human life and property, impairment of service in the hospitals and education, damage to the cultural assets and occurrence of secondary risks that may arise from the infrastructure systems and, in other words, such earthquake will affect the entire country in economic sense.

According to Istanbul Earthquake Master Plan, occurrence of a great earthquake in Istanbul within 30 years is rated 62% ±12. Basing on a study performed by GeoHazards International – GHI), sponsored by United Nations (UN), Istanbul is cited among three cities which have the highest earthquake risk worldwide.

Great damages occurred as a result of Marmara Earthquakes,1999, has been an historic moment for Turkey, showing significance of prevention of a disaster that may occur in Istanbul.

Considering this fact, we have taken important steps with respect to applications to reduce all damages of a possible earthquake and make Istanbul prepared against disasters.

ISMEP is the greatest one of the projects put into effect to make Istanbul and people of Istanbul prepared against all disasters, particularly earthquake.



Project deals with supportive and preventive applications for preparation before, during and after disasters, reduction of loss, response and recovery.

The project is conducted by Istanbul Project Coordination Unit (IPCU) set up in the body of Governorship of Istanbul, Istanbul in 2006. While a risk reduction project was put into effect on site for the first time in this sense, ISMEP has also brought a proactive approach for prevention and reduction of earthquake related risks that may occur in Istanbul.

Project, conducted by professionals consisting of experts in their respective disciplines, is scheduled to complete in 2019.

ISMEP focuses on the human life by pre-disaster preparations, correct manner of behaviors at time of disaster and things required to be performed after disaster. While it aims at reducing loss of property and life as a result of a possible earthquake, it also puts forward models applicable in most places worldwide.

PROJECT IDENTITY

Country - Region

Turkey - Istanbul

Project

Istanbul Seismic Risk Reduction and Emergency Preparedness Project (ISMEP)

Executive Bodies

Provincial Disaster and Emergency Directorate (Istanbul DED), Istanbul Project Coordination Unit (IPCU), TR Governorship of Istanbul

Project Term

2006-2019

Fund Resources

European Investment Bank,
European Council Development Bank
Islamic Development Bank

Project Budget

1.5 billion Euro

Okmeydanı Training and Research Hospital Project

ISMEP focuses on the human life by pre-disaster preparations, correct manner of behaviors at time of disaster and things required to be performed after disaster. While it aims at reducing loss of property and life as a result of a possible earthquake, it also puts forward models applicable in most places worldwide.

Primary activities conducted under the project are categorized under the following headings:

- Enhancement of the capacity of disaster and emergency management in Istanbul and improvement of the response capacity of the public entities in charge of response with disasters and emergency cases;
- Retrofitting of the priority public buildings such as education, health, dormitory, social service and administrative buildings in Istanbul or reduction of loss of life as a result of disaster risks;
- Inventory of the buildings covered by our cultural heritage and preparation and implementation of the retrofitting projects;
- Increase of knowledge of the Civil Engineer by means of training on “Regulations for Buildings to be built in Seismic Zones”,
- Investments in the building license and planning process in municipalities of Pendik and Bağcılar, which are pilot municipalities for active implementation of the zoning regulations;
- Operations for public awareness and training and thus making the people informed about things required to be done before, during and after disasters and create change in the behaviors by building awareness of the disasters in all parts of the society.

Components of ISMEP

ISMEP is consisted of three main components, namely, A, B and C, and of a project management component. In addition to these three main components, complementary of each other, the purpose of the Component D, called project management component, is to support managerial requirements of IPCU, responsible to conduct the project, and operate mechanism to enable realization of the project operations efficiently and transparently.

COMPONENT A

Enhancing Emergency Preparedness

- Establishment and Improvement of Emergency Communications Systems
- Establishment of Emergency Management Information Systems
- Strengthening the Institutional Capacity of Istanbul DED
- Upgrading the Emergency Response Capacity of the First Responding Agencieson Disaster and Emergency Situations
- Public Awareness and Training

COMPONENT B

Seismic Risk Mitigation for the Priority Public Buildings

- Retrofitting or Reconstruction of the Priority Public Facilities
- Supporting of National Disaster Activities
- Protection of Cultural Heritage
- Analyzing the current land/terrain management policies and instruments

COMPONENT C

Enforcement of Building Code

- Examining the building codes of the municipalities and bringing solutions
- The voluntary training of engineering professionals
- The enhancement of the technical and institutional capacity of the pilot municipalities to streamline issuance of building permits and ensure transparency in enforcement of building code and land use plans.

COMPONENT D

Project Management

- Finance / Accounting
- Purchasing / Administrative Works
- Audit / Reporting

Operations categorized under the Components of ISMEP are supported by additional headings in the implementation process. The section Components of ISMEP in this guide book gives detailed information about these headings.

Istanbul Project Coordination Unit (IPCU)

Set out to work under the motto "We are Strengthening Our Future", IPCU was set up in the body of Governorship of Istanbul to implement a risk reduction project on site for the first time in Turkey.

Istanbul Project Coordination Unit is in charge of implementation and supervision of the operations under ISMEP Project, which is one of the most successful initiatives setting example not only in our country, but worldwide for approach of taking measure before occurrence of disaster.

Having project management office functions recognized worldwide, IPCU identifies and brings solutions the current problems for preparation of Istanbul against disasters and also ensure implementation of the standards and methods applied in the solution process at a desirable level.

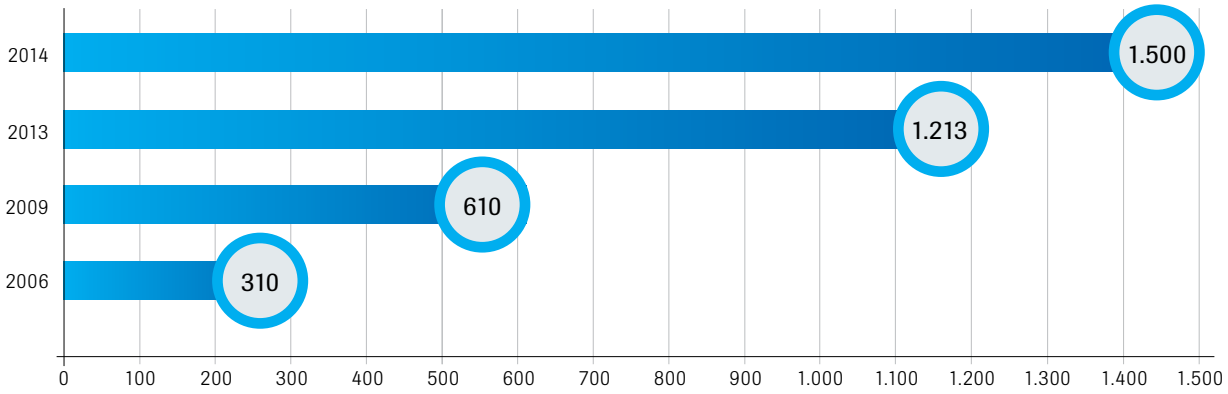
Set out to work under the motto "We Reinforce our Future", IPCU was set up in the body of Governorship of Istanbul to implement a risk reduction project on site for the first time in Turkey.

In line of the requirements of Istanbul and in accordance with the targets set by the public entities, IPCU continues and expands its operations to minimize disaster damages.

Major tasks of IPCU:

- Identification of the work schedules; monitoring and control of their implementation;
- Preparation of the work schedules and budget under the project;
- Coordination of activities with a variety of ministries and organizations;
- Management of market financial regulations;
- Preparation of the tender and contract documents in accordance with the agreed procurement procedures and management of the procurement process under the project;
- Preparation and presentation of project progress reports in accordance of guidelines acceptable by the find resources;
- Identification and implementation of standards compliant with the Environmental Management Plan with a view to producing environment and nature friendly projects.

Budget by Years (Million Euro)



Project budget has increased about 5 times so far in line with the requirements of Istanbul.

Vision

To reinforce future of Istanbul a world class city in full cooperation with the society and related organizations to build a pioneering, effective and sustainable structure for risk reduction operations.

Mission

To make the city of Istanbul prepared and more resilient to the disasters at the level of individuals, families and organizations by following innovative and participatory methods, proactive approach and policies for integrated disaster management activities.

Fundamental Values

- Pioneering and guiding in its activities;
- Focused on national strategies;
- Respectful of the urban values;
- Innovative and creative;
- Open to Development
- Solutions and service on basis of involvement and participation;
- Sensitive against requirements and demands of the society;
- Human-oriented;
- Prestigious and reliable;
- Priority in the allocation of the resources;
- Acting on efficiency and effectiveness; and
- Transparency and accountability.

Laws and cabinet decrees related to the project

1) Law on Regulation of Public Finance and Debt Management No. 4749 published in the Official Gazette No. 24721 of 09/04/2002 (Law on Modification in the Law on Public Finance and Debt Management; Law on Organization and Tasks of Undersecretariat of Treasury and Undersecretariat of Foreign Trade and Law on Allocation of Share to the Municipalities and Provincial Private Administrations from General Budget Tax Revenues)

2) "Decree No. 2005/8962 on Allocation to the Istanbul Provincial Private Administration of the Loan in amount of 310 M Euro to be provided by the World Bank for Istanbul Seismic Risk Mitigation and Emergency Preparedness Project without any consideration" as published in the Official Gazette No. 25852 of June 21, 2005", Cabinet Decree

3) "Decree No. 2005/9716 on Effective of the Loan Agreement and the annexes to it signed by the International Reconstruction and Development Bank and Turkey for Finance of the "Istanbul Seismic Risk Mitigation and Emergency Preparedness Project (ISMEP) set up for making Istanbul prepared against a possible disasters" as published in the Official Gazette No. 26024 of December 15, 2005.

Istanbul Disaster and Emergency Directorate (Istanbul DED)

The projects developed under ISMEP in line with the corporate requirements of DED, which is in charge of the management of the disasters and emergency case of the city are implemented in close coordination with Istanbul DED team.

Governorship of Istanbul Provincial Disaster and Emergency Directorate, DED, operates to ensure coordination and cooperation among all entities and organizations in charge of disaster preparations and monitor and control the services.

Adopting "risk management" instead of "crisis management" as a necessity of modern disaster management, Istanbul DED takes as principle the protection instead of rescue and preparedness instead of relief in its operations covering the stages of "mitigation, preparedness, response and recovery".

In line with the corporate requirements of DED in charge of the disaster and emergency management of the city, the projects developed under ISMEP are implemented in close coordination with Istanbul DED team.

The projects approaches the disaster management in an integrated way and reinforces institutional capacity of Istanbul DED by large-scale operations such as construction of new command and control centers and disaster information system as well as social trainings, disaster voluntary system and disaster and emergency planning mechanisms.

Operational fields of Istanbul DED:

- Ensuring prevention and response plans are drawn up against disaster and emergencies;
- Ensuring coordination and cooperation among the entities and organizations legally responsible to conduct disaster preparations;
- Realizing organizations and applications to ensure voluntary and professional associations to be involved with these operations effectively.

Istanbul Provincial Disaster and Emergency Directorate, Hasdal

Beyazıt (Fire) Tower, Suleymaniye Mosque


ISMEP

Stages of the Project

1 PREPARATION

ISMEP is a project made actual by a long process of carefully performed operations. In the preparation process, the primary and secondary components have been formulized as its fundamentals.

Later on cooperation to be made with the stakeholders and experts as well as management structure as planned and quality assurance standards were prepared; and prioritization and ownership operations were made in compliance with the criteria and project finance.

As a result of these operations, reasoning of ISMEP and determination of which one of the current operations in Istanbul is supported.

2 ORGANIZATION

The preparation process has been followed by formation of the organizational structure of the project.

In this process, Steering Committee was set up and IPCU established in the body of the Governorship of Istanbul to conduct ISMEP.

IPCU as designed to act as a project management office for the planning, guide and measuring operations for the project management.

The officers and experts to take place in the project have been determined and selected among the most qualified professionals of the respective disciplines in accordance with the employment manual of the World Bank, which provided the original finance.

Operations performed under ISMEP, a multi-stakeholder and –component project, are evaluated in the sages of "Project preparations, Project Organization, Project Implementation, Experience and Information Sharing."

3 IMPLEMENTATION

Operations conducted under ISMEP are consisted of 3 primary components, complementary of each other, and sub-components of them.

In the operations performed in the scope of these components, a human-oriented approach is adopted and progress made in compliance with international standards and financial and economic solutions developed suitable to the projects.

Basing on the idea that an operation not acceptable to the society is doomed to fail, ISMEP takes steps in this way b means of social activities, aiming to have access to the people living in Istanbul it considers as the main stakeholder.

4 EXPERIENCE AND INFORMATION SHARING

ISMEP gives special significance to the future-oriented operations, which are effective to convert the experience and information background gained from the activities for more than seven years particularly to permanent projects for disaster risk reduction and communication of the gained experience to the stakeholders.

On the other hand, establishment of an excellence center is planned for maintenance of the project and share of the project results and accumulated information which will also be supported by the international organizations to give service in the field of disaster.

Process of Preparation

40% of the gross domestic product of Turkey is produced in Istanbul

20% of the national population lives in Istanbul.

The 7.4 earthquake, which occurred in Marmara Region on August 17, 1999 resulted in great mortality, more than 17 thousands of people, leaving more than 200 thousands homeless. The region, heart of the industry in Turkey, has significantly incurred damage.

After the earthquake, Marmara Earthquake Emergency Reconstruction (MEER) was launched by the Prime Ministry in 2000. Under MEER project, ten thousands of new buildings, hospitals, roads and infrastructural operations in Yalova, Düzce, Bolu, Adapazarı and Kocaeli have given us a signal about a severe place we would pay in case of a similar earthquake in Istanbul.

Time and labor spent for the operations under MEER project has unfortunately shown us by real experience that significance of taking measure on timely basis and that response of disaster may never substitute to being prepared.

Discreet opinions have agreed on taking lesson from these destructive events, formation of a mechanism urgently in order to minimize corporeal and incorporeal damages of a new natural disaster that we may encounter in future and preparation of a large scale reconstruction plan.

Thus, after Marmara Earthquakes, significant changes have occurred in the approach of Turkey to the disasters.

Reduction of the risks and building resistance in the society against the disasters has become widely recognized. Basing on this point, a great number of studies and researches have been conducted in Istanbul, the vital city of Turkey.

That 40% of the gross domestic product of Turkey is produced and 20% of the population lives in Istanbul shows us clearly that an earthquake to occur here will deeply affect the entire country.

Such an earthquake will not be limited with loss of life and property on regional scale, but strike a heavy blow to the economic, social and cultural development of the country on national scale.

Giving news that an earthquake of same scale looms in the horizon for Istanbul, the scientific data also brings the question "if we cannot prevent it, how we can be prepared for it?".

Certainly similar risk reduction operations are performed in the developed countries and thus such disasters do not exceed the limits of just a "natural event".

However, cases of similar scale turn into disaster in the underdeveloped or developing countries. Avoidance of it is only possible by a change of mortality. And the greatest step in this way was taken as a result of the process described above after 1999 Marmara Earthquakes.

After Marmara Earthquakes, Istanbul Earthquake Master Plan made by participation of Istanbul Metropolitan Municipality and Istanbul Technical University, Bosphorus University, Yıldız Technical University and Orta Doğu Technical University has shown an earthquake with considerable consequences will most likely occur in Istanbul.

Both the position of the fault line of the earthquake and anticipation about the results it may cause when it actually occurs have made us agree on the necessity of things which should be performed. In this way, Prime Ministry Project Implementation Unit (PIU) has undertaken coordination of the operation as well as the mission to set other organizations in motion.

Thus, the first step was taken for the meetings more than 100 in number attended by about 400 persons from the central and local administrations.

In order to have a common language on the matter, proposals made by each organization and expert were taken into consideration in the frequent meetings to form the framework of the works to be performed.

ISMEP is the outcome of PIU, a team of 10 persons only, which subsequently growth by efforts and commitments of hundreds of experts who have made their best efforts and attended at the meetings with their precious opinions to reach to a common vision. And now ISMEP completed its preparation process and entered into effect by the loan agreement signed between the World Bank and Undersecretariat of Treasury in 2006.

Management Structure of IPCU

Integrity, respectability, accountability and compliance to the standards specified by the laws all constitute center of operation of IPCU.

IPCU is consisted of a core 33-person team that determines standards of and ensures continuity of the project management. Considering the consultancy it receives during its operations as well as consultancy services for implementation, the unit continues its activities with active employees more than 500 in number.

Providing services of planning, guiding and measuring with respect to implementation and implementation of the project management, IPCU is located at the root of the said operations. As the owner of the process of standards, methodology and facilitating or active management, it undertakes all strategic functions of the project management.

With its management advantage and sound corporate identity, IPCU allows active management. Integrity, respectability, accountability and compliance to the standards specified by the laws all constitute center of operation of IPCU.

Having taken necessary steps to reach at the highest standards with respect to the field of corporate management, IPCU always comply with 4 principles of the corporate management (transparency, fairness, responsibility and accountability), basing also on the principle of social engagement.

Management Structure of IPCU

Configured as a project management office, IPCU is managed on basis of participatory, sharing and committed stakeholders and sharers.

- Ministry of Development
- Ministry of Environment and Urban Planning
- Undersecretariat of Treasury, Prime Ministry
- Disaster and Emergency Directorate, Prime Ministry
- Istanbul Provincial Disaster and Emergency Directorate
- Istanbul Metropolitan Municipality
- Istanbul Revenue Office
- Istanbul Provincial Directorate of Environmental and Urban Planning
- Istanbul Provincial National Education Directorate
- Higher Education Credit and Hostels Institution
- Istanbul Provincial Health Directorate
- Istanbul Provincial Social Services Directorate
- Istanbul Provincial Security Directorate
- Pendik Municipality

- Academic Consultants
- International Consultants
- Corporate Consultants
- Individual Consultants

- World Bank
- European Investment Bank
- European Council Development Bank
- Islamic Development Bank

- Management
- Planning
- Monitoring and Evaluation
- Internal and External Audit

At IPCU, at the beginning the requirements are determined and then a variety of requirements, concerns and expectations of the stakeholders are sensitively addressed in the subsequent stage of the project planning.

IPCU

IPCU is managed by a team consisting of persons who are specialized in the applicable regulations, expert in their respective fields, knowledgeable about disaster management and experienced.

This team basically undertakes the functions of project development, planning and management.

Personnel of IPCU take advantage of their knowledge, skills, tools and technique to fulfill the project requirements during the project activities.

During the performance of the project, the repeated economic activities are performed for standardization.

They monitor and report the current projects and provide the upper management with progress reports to take on structural decisions such as projects to be continued or revoked.

At IPCU, at the beginning the requirements are determined and then a variety of requirements, concerns and expectations of the stakeholders are sensitively addressed in the subsequent stage of the project planning.

And in the progress of the project, the matters such as scope, quality, time schedule, budget, resources and risk are dealt with from a number of perspectives.

Exerts commissioned in the body of IPCU to conduct ISMEP are divided into sub units such as management, technical/expert team, procurement team, data processing team and financial management team.

Examinig of Reconstruction Works by the Project Technical Team

Management

While each unit under the roof of IPCU is responsible for those activities of the project that coincide with its own filed, responsibility of the management covers all fields.

In addition to implementation of the project activities timely and effectively, establishment of a sound project and financial management system and continuity of that system is especially under the responsibility of the management team.

Furthermore, the management directs the daily activities in IPCU and represents IPCU before the governmental agencies and private organizations and in the international arena.

Together with these organizations, it monitors and coordinates the activities performed. Throughout all these operations, close contact is built with the fund resources.

Technical/Expert Team

Containing urban planners, architects, civil engineers, mechanical engineers, electric engineers, electronic communications engineers, computer engineers, environmental engineers, geotechnical engineers, earthquake engineers and social scientists, the technical team includes persons with professional competent and sense of mission in a wide range of fields.

This team develops tender documents, references of work and technical indicators and supervises its employees. It performs required operations to enhance project ownership and ensure sustainability.

Procurement Team

It manages the tender process by undertaking all procurements under the project as per the international standards specified by the fund resources and local standards laid down by the Steering Committee.

It issues periodical purchase reports to submit to the fund resources.

All related stakeholders of the operations conducted in the scope of the components such as Istanbul Provincial Directorate of Environment and Urbanization, Istanbul Provincial Health Directorate, Istanbul Provincial Security Directorate, Regional Directorate of Credit and Dormitories Agency, Istanbul Provincial Directorate of National Education and hospital executives attend at the meetings of the Steering Committee.

Data Processing Team

A Decision Support System is set up to contribute to solve complex problems by ensuring effective use of the data and models.

It directors and renders consultancy on processes related to software such as Disaster Information System and Geographical Information System executed under the Product as well as all hardware matters.

IPCU uses its own Information Management System software to analyze and report a great amount of data derived from the projects it conducts.

This web-based software is coded by Microsoft.NET technology and runs on the data kept in SQL database.

At the unit, the internal communication is largely performed via intranet system. Information Software System monitors basic information such as reporting, archiving and procurement on this platform.

Certain information is directly communicated to the stakeholders from the system realized by participation of the team through direct transfer to the web page as well.

Provision of sufficient technical support concerning all these processes is also among the tasks of this unit.

Financial Management Team

In charge of the financial management of the organization and project, the financial management provides regular budgeting and cash flow and prepares, examines and audits financial statements in compliance with the national and international standards. It provides access to the reports and all necessary documents for audit by an independent audit. It finalizes and supervises all payments to be made to the suppliers.

Fund Resources

Budget of IPCU in consisted of the funds provided by the international finance organizations. Designed in compliance with both international and local standards with respect to all processes and policies of the organization, the management structure procures transparency and clarity regarding decision-taking and responsibility.

Steering Committee

In order to ensure coordination among the organizations and, if required, take important decisions, the project has an Steering Committee consisting of the representatives of the central and local administrations. This committee, headed by Governor for Istanbul, includes top level representatives of the related organizations and concerned directors in Istanbul. All respective stakeholders are included in these meetings. 12 committee meetings have been held from the starting date of the project 2006 to 2013.

In the meetings, plans and programs, budget, targets, innovations and vision of ISMEP is dealt and evaluated on transparency and contribution basis. Furthermore, monitoring to what extent the innovation put into implementation by IPCU via the project deliverables from the meetings is adopted by other organizations is among the prolific benefits created by the meetings to the advantage of other organizations.

Consultants

Consultancy services are received from national and international individuals and entities to realize the projects under the components of ISMEP by the most accurate methods efficiently and professionally.

Agreement is made with the expert firms and persons on project basis and, when required, contracts are awarded individually for each project and it is announced via national or international platforms depending on the size of the operation.

Quality Assurance System

Meeting of the beneficiary requirements exactly and as specified constitutes the core logic of the ISMEP quality assurance system.

This project, essentially built upon the skeleton structure of procedures and principles specified by the World Bank, determines its own standards by means of both internal and external consultants, mostly by its own resources in line with its budget, scope, number of stakeholders and size of the city to which it is applied.

In the system, regular measuring, adaptation to the previously defined standards, monitoring of the process and prevention of errors are provided.

Thus the aim is description and documentation of all tasks and responsibilities by the instructions at all stages and maintenance of the quality as planned and avoidance of unnecessary use of resources.

Meeting of the beneficiary requirements exactly and as specified constitutes the core logic of the ISMEP quality assurance system.

Working Standards

Basin on the principle specified by the higher policy of the government to the effect that "technical consultancy and contracting services will be provided as per the international standards and in a safety way and use of the independent consultancy services in the public investments will be widespread", IPCU performs all its operations by taking advantage of technical consultancy and advise. In both feasibility and implementation and monitoring stages f the investments, it cooperates with technical consultants on project basis in accordance with the procurement procedures and principles of the World Bank by outsourcing.

Besides, the working principles and guides prepared in line with the local regulations are used in the decision-taking process. And the decision-taking process is again specified by the guides and manuals published by the World Bank.

World Bank Tender Guides and Manuals

1. Loan Agreement No. 4784-TU of October 18,2005 and its Annexes (PAD-Project Appraisal Document)
2. Authorization Letter of the Governorship
3. Working Procedures and Principles of the Steering Committee
4. Directive on Signature Authorization
5. Financial Management Manual
6. Manual on Purchase of Goods, Construction Works and Provision of Services not Subject to Consultancy under IBRD Credits and IDA Credits
7. Manual on selection and employment of consultants by the Debtors of the World Bank under IBRD and IDA Credits.

Contracting Process

For all purchase operations, the principles of economy and efficiency, equality of opportunity, development of local industry and transparency are strictly observed.

Depending on size of the work, different types of contracts are made in accordance with the methods specified as per the procurement procedures and principles of the World Bank.

Contracts of the projects prepared by the consulting firms commissioned in the education, retrofitting, reconstruction, analysis and design operations are made on basis of the procedures and methods given in the opposite columns.

- In the "Contracting Method Open to International Competition", firstly the technical specifications and bid appraisal criteria are specified. Secondly the tender invitation letter and draft contract document are issued Thus the tender invitation is published.
- For selection of consultant under the project, Quality and Cost Based Selection, and Quality Based Selection" methods are used.

  These methods require detailed process and approval of the bank for all processes.

- The said Tender Method is consisted of the stages such as receipt of the bids and opening them in presence of the bidders; preparation of the tender appraisal report and approval of the bid evaluation report.
- Tender invitations are published particularly in the Official Gazette, one of the first five gazette with the highest circulation nationally and posted on IPCU website and related international websites. Announcements of the awarded companies are made via web page of IPCU.

By the regularly performed impact evaluation operations, the results of the work performed and satisfaction of the beneficiaries are evaluated and, particularly in case of construction, such materials and work process will be selected by such method that the quality of the work performed at any phase will not depend on initiative of the worker or operator, minimizing the margin of error.

Application Manuals and Guide

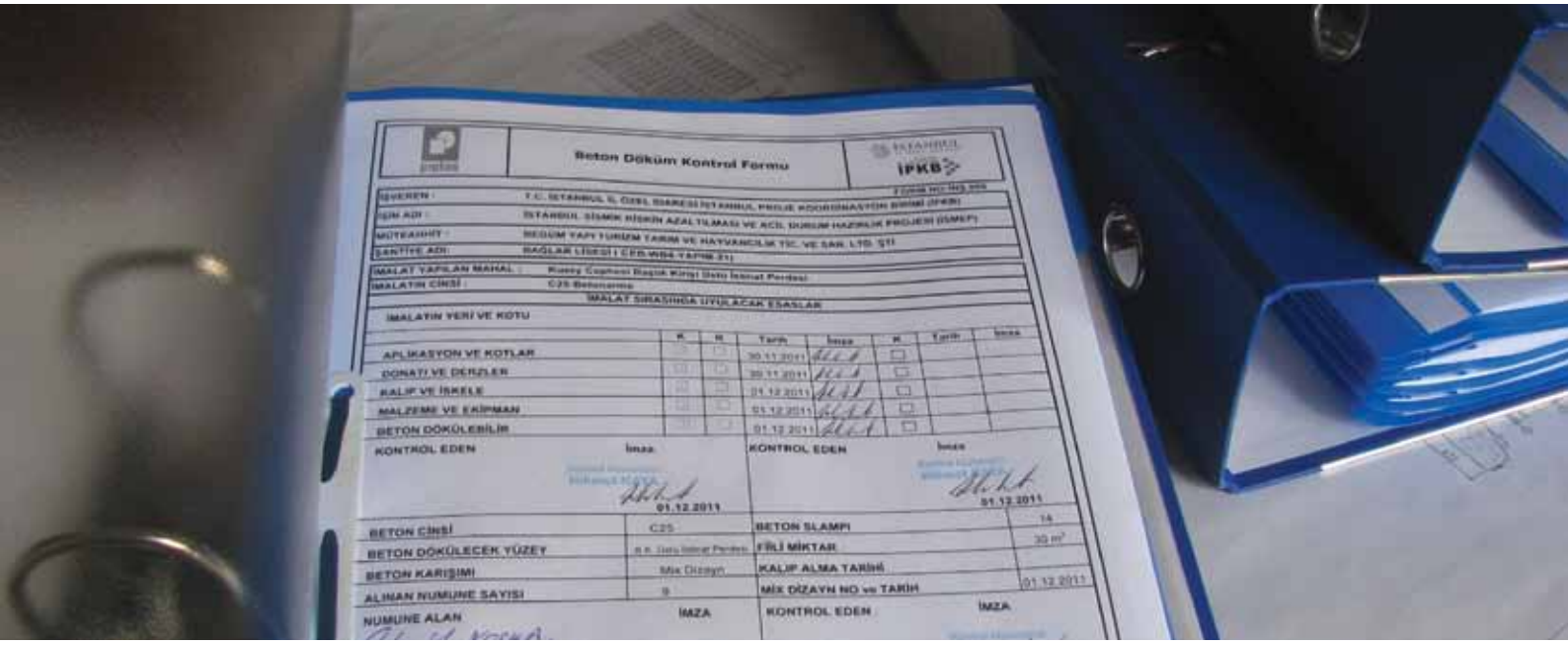
While ISMEP prepares Istanbul against disasters, it has made publications to function as guide to the persons and entities performing the works in order to obtain work results as per the specified working standards. “School Disaster and Emergency Plan” containing current approaches for the executives and employees of the education organizations and “Application Guide” prepared for the construction workers commissioned in the reconstruction projects are included in these publications.

Monitoring and Control

Observation of the actual effects of the investments plays great role in the feedback of the accuracy of the estimated effects. Different stages of the works performed under ISMEP are regularly audited by independent audits, independent laboratories and universities.

In this context, a proper monitoring and control system has been established to determine whether the commitments made have been performed and their effects on the environment and take necessary measures accurately, timely and when required.

On the other hand, by the regularly performed impact evaluation operations, the results of the work performed and satisfaction of the beneficiaries are evaluated and, particularly in case of construction, such materials and work process will be selected by such method that the quality of the work performed at any phase will not depend on initiative of the worker or operator, minimizing the margin of error.



An Example of Control Form

Internal Audit System

Performance of the activities in accordance with effective, efficient and legal regulations and establishment of an integrated accounting and financial reporting system are among the basic principles of the IPCU management. Establishment and operation of a correctly running internal audit system is considered by all employees, particularly executives of the unit, as a responsibility. Being aware of the fact that the most important component of an internal audit system is the audit environment, the audit environment in the unit is specified by the rules and designed so as to contribute to all work process.

Furthermore, there are necessary regulations concerning basic elements such as organizational structure, ethical principles, authorization and distribution of responsibility.

- Job description of the employees at each level together with audit responsibilities;
- Documentation of all work flows and audit points in the audit;
- Establishment of information systems in accordance with volume and quality of the activities of the unit;
- Establishment of effective and comprehensive communication channels;
- Efficiency of the internal audit systems is ensured by seeking and implementing recommendations of the employees about the process and activities.

Internal Trainings

In IPCU, the trainings constitute basis of the human resources policy.

IPCU Management aims that each employer should be informed about his/her role with respect to the sub-projects and equipped with such information and skills to perform their respective responsibilities.

According to the prevailing understanding of work in the unit development of the respective skills of all employees of the unit will play great role in the future achievements.

For this reason, the executives and employees at IPCU receive training by certain intervals to follow any development in connection with their fields.

Stakeholders Involvement

BENEFICIARIES

All operations under ISMEP are operated on involvement basis and thus planning and coordination operations are performed in cooperation with the local administrations and related public entities.

Each phase of the operations is shared with the beneficiaries such as the Provincial Health and National Education Directorates, local administrations as well as executives and employees affected by the project applications and shaped in accordance with recommendations an expectations of them.

By the impact assessment operations regularly performed, opinion of different parts of the society are obtained.

NON-GOVERNMENTAL ORGANIZATIONS (NGOs)

Considering size of Istanbul, NGOs are the most effective operations to address to the whole city.

NGOs, particularly playing effective role in the operations for expansion of the project, act as solution partners.

Above all, NGOs representing the communities, have great importance for ISMEP, which is a social-based risk reduction project, and are included in the meetings of the Steering Committee.

MINISTRIES

IPCU is in constant coordination with the ministries in connection with the project activities.

The progress of this project, which has a strategic importance for Turkey, is shared with the concerned ministries in accountability sense.

In light of the recommendations from the ministries, projects

Since its establishment, IPCU considers stakeholders involvement as an integral part of its vision.

Main axis of the corporate responsibility of IPCU, which conducts committed operations for formation of a disaster-resilient society together with all its stakeholders, is made up of communication and coordination it has established with its stakeholders.

In parallel to its corporate sustainability, IPCU increases number of its stakeholders every day and reviews its strategies in accordance with their ideas and recommendations.

STEERING COMMITTEE

Progress and problems of the projects as well as solution suggestions are discussed in the meetings regularly held. And sometimes special projects are prepared to address to the demands and requirements of the member organizations of the committee.

In these meetings made regularly, the progress reports are presented to the committee and the realization status of the strategic plans is examined basing on the performance reports issued at the end of each work in order to find out to what extent the strategic targets have been achieved.

UNIVERSITIES

Basing on the behavior vision on basis of compliance with the scientific principles, which is considered among the primary priorities of ISMEP, the study results and consultancy are sought from the concerned departments of the universities.

Academicians are made involved with the project to ensure academic support for the operations and benefit from the deep knowledge of the universities.

CONSULTANTS

In line with use of independent consultancy services for public investments, consultancy supports are taken.

Starting from the development phase of the project, the consultants play active roles in the visits on site, monitoring and assessment meetings and design.

Thanks to this method, quality work production capacity, performance, efficiency and productivity is enhanced.

MEDIA

Raising awareness on part of the media to act in a responsible understanding of news is also among the matters for which ISMEP spends great efforts.

Media is included in the process by means of events organized for sharing the project activities with the public.

Furthermore, public awareness campaigns realized under the project are also the another pillar of the media relations.

PRIVATE SECTOR

Cooperation is made with many branches of the private sector for application of the solutions produced under ISMEP.

Thanks to the information and cooperation programs as well as sector-specific projects performed for development of the respective sectors, solutions contributing to the work sustainability are produced.

PUBLIC ORGANIZATIONS AND LOCAL ADMINISTRATIONS

Training operations and a variety of common projects are performed for development of the local capacity.

By these projects, models are put into action to set example to all public organizations, municipalities and local administrations for both Istanbul and Turkey in a future-oriented way.

Visit by the Project Team for Assessment of the Archeology Museum Operations

INTERNATIONAL STAKEHOLDERS

Exchange of information and experience among the countries and society characterized by different cultural, social and economic conditions is one of the factors that IPCU gives importance.

In this line, it exchanges information by means of events such as international conferences it organizes and attends.

It increases number of international mass of stakeholders every day by incorporations in the project of the experts that perform studies in this field.

FUND RESOURCES

The entire budget of IPCU is made up of funds provided by international finance organizations.

In order that the activities performed under the project are shared with and audited by the teams from the fund resources, the fun resources are made involved with the management process by means of visits made two times a year and special visits made when required.

Mutual reporting process assures audit and experience sharing.

IPCU EMPLOYEES (INTERNAL STAKEHOLDERS)

With progress meetings, trainings and performance assessments made regularly, the employees are made involved with improvement process of the project; furthermore, skillful workforce is retained in the organization and motivated by taking into consideration their opinion and consideration.

City Line Vessel, Galata Bridge

Components of ISMEP

Component A
Enhancing Emergency Preparedness

ISMEP makes it possible to have access to hundred thousands of people from parts of the society from the children to the local administrators by means of trainings for raising awareness and give information about disasters to create social capacity.

Enhancing Emergency Preparedness, Component A of ISMEP, aims at maximizing as far as possible the current response capacities of the public organizations and entities such as Istanbul DED, Istanbul Civil Defense Search and Rescue Association directorate, Istanbul Provincial Health Directorate, Istanbul Security Directorate, Provincial Gendarme Command, Turkish Crescent, which are in charge of first response in case of disasters and emergency.

Communication and information technologies as sub-components of Component A are used for development of the institutional capacity of Istanbul DED and realization of the projects for supply of the materials and equipment as required by the first-intervening public entities and organizations.

Furthermore, under another sub-component, raising awareness and training of the society with respect to disasters, the trainings make it possible to have access to hundred thousands of people from parts of the society from the children to the local administrators by means of trainings for raising awareness and give information about disasters to create social capacity.

This component also includes revision of the current disaster management system to be used by the public organizations and entities commissioned to act in case of disasters in coordination with Istanbul DED, preparation of the disaster plans of these organizations and entities and updating and available of these plans to keep up with the current conditions.

In the scope of Component A, the operations detailed below should be addressed:

COMPONENT A Enhancing Emergency Preparedness

- Establishment and Development of Emergency Communication Systems
- Establishment of Disaster and Emergency Information Management Systems
- Increasing the Institutional Capacity of Istanbul DED
- Increasing the First Intervention Capacity in case of Disaster and Emergency
- Istanbul ADMIP
- Public Awareness and Training
- Support of National and International Disaster Preparation Operations

Establishment and Development of Emergency Communication Systems

Being aware about vital importance of the uninterrupted and effective communication of the public organizations and entities in case of a possible disaster, regional transmitters, microwave links, mobile wireless relays and peripheral equipment for the existing analogue radio network have been procured and installed under ISMEP. And an analogue radio infrastructure was built by allocation of one frequency in UHF and VHF bands each to Istanbul DED to use as common channel at time of disaster, which will serve to the boundaries of Istanbul.

In the Emergency Communications System, the satellite, territorial lines, analogue and radio systems and GSM/3G network technologies have been used as well.

The radio channel Meteorolojinin Sesi is another way for communication and information of the public regularly at time of disaster.

By the protocol made with General Directorate of the State Meteorology Affairs, Afet FM, which broadcasts on certain days and times via "Meteorolojinin Sesi" Radio in the frequency of 103.0 will continue broadcasting to inform the people in case of a possible disaster or crisis.

Establishment of Disaster and Emergency Information Management Systems

By common operation of Istanbul DED and IPCU, "Disaster and Emergency Information System" software has been developed to ensure coordination with all concerned organizations in case of disaster and emergency.

Functions of the disaster information system:

- Control lists and planning
- Crisis management
- Geographical information system
- Temporary zoning management
- Status information
- Improvement management
- Integration with early warning systems
- Messaging and integration infrastructure
- Drills and training
- Coordination of international aids

Indoor Space of Provincial Disaster and Emergency Directorate, Hastal

Enhencement of Instutional Capaacity of the Istanbul Disaster and Emergency Directorate

In the scope of Component A, the existing building owned by Istanbul DED and organized to operate 24-hour to perform functions of Provincial Crisis Center in emergency in addition to coordination and cooperation among the organizations and entities liable to conduct disaster preparations was converted to “Provincial Control and Command Center”.

And two new control and command centers were also built for the Istanbul Provincial Disaster and Emergency Directorate to back up each other in case of a disaster in the scope of this component. Provincial Disaster and Emergency Directorate in Hasdal has an indoor space of 7500m2. In addition to access facilities by road and air, the center is also equipped with communication and information technologies allowing employment of about 500 persons.

Another center, located at the Campus of Red Crescent Marmara Disaster Intervention and Logistic Center, Anatolian Site (MAFOM), has an indoor storage area of 8100m3 with a capacity of 1237 containers together with an indoor space of 17350m2 in total. Allowing loading capacity at 8 different points simultaneously, the center also has outdoor storage space with capacity of 246 containers and parking lot for operations of 20 Trailers at the same time.

New mobile communication vehicles were purchased for reinforcement of the current communication infrastructure of the Provincial Disaster and Emergency. Designed to perform on site the functions of the Communication Centers of Provincial Disaster and Emergency Directorate, the mobile communication vehicles may transmit audio, data and live video from the scene thanks to the technologies they have.

In the scope of the project, decontamination system equipped with the most advanced technology was procured for Istanbul to use after any possible nuclear, biologic or chemical contamination.

Disaster and Emergency Response and Communication Vehicle

'Decontamination system', a first for our country, was included in the body of Istanbul Civil defense Search and Rescue Association Directorate in the scope of ISMEP Project. The system will be used for decontaminate any nuclear, biologic and chemical substances from the victims, personnel, clothing articles, equipment, precise equipment, tools and implements, lands, roads, internal and external parts of the buildings and all kinds of road, air and sea vehicles after any possible natural disaster, fire, industrial pollution, terrorist actions by mass destruction weapons.

Acting under the roof of Istanbul DED, Istanbul Civil Defense Search and Rescue Association, again supported by IPCU for supply of materials, is the "first" and "single" team in our country by successfully meeting 128 criteria set by the United Nations International Search and Rescue Advisory Group (INSARAG) for accreditation, which is recognized to comply with international standards in the field of "heavy search and rescue".

Increase of the First Response Capacity in case of Disaster and Emergency

Another aspect of ISMEP investments is increase of the disaster and emergency response capacities of the organizations and entities.

Under ISMEP, comprehensive investments were made for Provincial Disaster and Emergency Directorate, Provincial Health Directorate, Provincial Security Directorate, Provincial Gendarme Command, National Medical Rescue Teams, Turkish Red Crescent, Kandilli Observatory and Seismic Research Institute, Bosphorus University.

Main headings of the investments

- Emergency discovery, operation and rescue vehicle
- Communication equipment
- Rescue equipment
- Medical equipment
- Containers
- Light towers
- Cold storage rooms
- Mevlana houses

Disaster and Emergency Prevention, Response and Immidiate Aid Recovery Plan (ADMIP) for Istanbul

It will address to the specific structure of Istanbul, covering operations to prepare the cit against disasters by means of proper organizations and pioneering applications as per DED National Intervention Plan, Prime Ministry.

Istanbul ADMIP is designed to coordinate the activities of reduction of the severity of the disasters and adverse consequences, response plan, monitoring, quick effect and needs analysis at time of disaster, improvement and rehabilitation activities after improvement.

ISMEP Public Training Modules

15
modules

15 different training modules have been prepared under ISMEP

Public Awareness and Training

Social Training Modules

15 different training modules have been prepared for public training and awareness under ISMEP. Referring to these modules, training series were formed to address to all parts of the society from children to local executives.

Each consisting of books, posters, brochures, information card, trainer presentation files, communication and dissemination strategy, the modules are listed below:

- First 72 Hours for the Individual and a Family in an Earthquake
- First 72 Hours for Disabled People in an Earthquake
- Disaster Emergency Aid Planning Guide for Educational Institutions
- Disaster Emergency Aid Planning Guide for Industrial and Working Place
- Disaster Emergency Aid Planning Guide for Healthcare Organizations
- Psychological First Aid During Disasters
- Compulsory Earthquake Insurance Awareness
- Structural Retrofitting Against Earthquake
- Structural Risk Mitigation Against Earthquake
- Non-structural Risk Mitigation Against Earthquake
- Survival Under Extraordinary Conditions
- Disaster Preparedness for Local Disaster Volunteers
- Urban Planning and Construction for Disaster Mitigation
  - For Local Decision Makers
  - For Technical Staff
  - For Community Representatives

GY CHILDREN

Children Training for Safe life **RAISING AWARENESS AT EARLY AGE** Training term: 40 Minutes

Things that may give harm for us?
What measures should be taken to remain unharmed?

Earthquake Preparation:
- Hunt for Hazard
- Tools Kit
- Disaster Preparation Plan for Family
- Importance of Training in Preparing Against Disaster
- Kneel Down, Close and Hold Application

GY1

Safe life 1 Training **AWARENESS** Training term: 1 Hour

- Basic Information and Concepts for Fight Against Disasters
- Social Solidarity for Preparations Against Disaster
- Reduction of the Risks in the Environment where We live
- Reduction of Non-structural Risks
- Family Disaster Plan
- Special Requirements and Special Interest Groups
- Correct Manners of Behaviors during Disasters
- First Hours After Disaster, Safe Life 2 Training (GY2)

GY2

Local Disaster Volunteer Training (YAG) **KNOWLEDGE AND SKILLS** Training term: 4 Hours

- Preparation for Disaster and Emergency Cases
- Awareness of Urban Living
- Information on Intervention with Small Fire
- General First Aid Information
- Fulfillment of Needs in case of Disasters
- Contribution to Improvement Operations after Disaster
- Other Things to be Done Before, During and After Disasters
- Disaster Plan Advisory for Family

YAG

Local Disaster Volunteer Training (YAG) **SOCIAL SOLIDARITY BİRLİĞİ** Training term: 60 Hours

1st Section
- First 72 Hours
- Modern Disaster Management and Concept of Local Disaster Volunteer
- Urban Risks and Mitigation of Urban Risks
- Structural Risks
- District Preparations
- Data Collection and Reporting
- Applications

2nd Section
- YAG Personnel Safety
- Intervention Region
- First Aid in case of Disasters
- Intervention with Small Fire
- Light Urban Search and Rescue
- Team Organization in YAGs

ADP

Emergency Planning Trainings **DISASTER-RESILIENT ORGANIZATION** Training term: 8 Hours

- Formation of Teams
- Hazard and Risk Analysis
- Damage Reduction Operations
- Formation of Command and Emergency Services
- Preparation of the Application Directives
- Training and Drills
- Solidarity and Cooperation Protocols
- Supply of Emergency Materials

Safe Life Promotion and Information Campaign, Stand in Taksim

Social Trainings

Basing on the fact that raising awareness of the public is the most effective method of risk deduction, social training programs have been prepared. First of all, trainings raise awareness of the individuals ensuring them to reduce risks in their habitats and contribute to social solidarity by participation to the preparation operations for disasters performed for the city.

In order that these trainings may have access to the society as a whole, different versions were prepared for children, adults and organizations.

Promotion and Information Campaigns

In order that the social training modules and trainings under ISMEP may have access to all parts of the society, promotion and information campaigns have been organized.

In the campaigns, promotion and information stands are set up in the Malls and at the squares of the city and operations are performed for printed and visual media channels and social media channels are used.

All these operations are in accordance with a communication strategy integrated with Safe Life concept.

For all details about the operations performed for "Social Information and Awareness", you may see our "Guide Book on Development of Social Capacity and Social Trainings".

Support of National and International Disaster Operations

ISMEP has hosted national and international conferences such as Safety City Safe Life Meeting and Istanbul International Conference on Seismic Risk Mitigation to share and exchange information and experience and develop social capacity against the disasters.

ISMEP was invited to the events such as International Recovery Forum, Disaster Risk Management Conference, 2010 Kyoto Policy Forum – Sustainable Institutions and Infrastructure of Safe Communities and contributed to formation of international strategies.

Furthermore, ISMEP has also given contents support to the national efforts such as DED disaster Training Books, Turkey Ready for Disaster Workshop and Disaster Awareness Training by Disaster Emergency Presidency.

Method in the Applications of Component A

Budget of the sub-components in the scope of Component A is determined by regular planning operations for each sub-component.

That the description of the sub-components and the articles in the loan agreement are clear so as no to cause any interpretation precludes uncertainty in the selection of the product or service to be purchased. Thus no product or service irrelevant with the agreement is purchased.

Procurement of the goods or service is performed in a competitive bidding environment and in accordance with the work and loan.

In order that the requests of the applicants of IPCU are logical and for fulfillment of requirements, first of all, necessary information is given to the organizations for correct use of the resource.

When the organizations perceive it properly, then the list of requirements may be prepared from a correct point of view.

When an organization, for example, comes up a request for rescue equipment, such requirement may only be fulfilled when certain conditions are mated.

If the rescue equipment of the request is equipped with more qualities than required and specified basing on specific characteristics not leading to competition in the tender, a comparable product to fulfill need of the organization similarly and produced by many companies so as to create competition in the bidding.

Furthermore, if an organization requests, for sake of not causing any burned on the budget of ISMEP, equipment that would not be useful at time of disaster, then such equipment that would meet the requirement completely, even if more costly, would be purchased.

Meetings of Steering Committee are held to agree on what budget to be reserved for what organization and what requirements to be fulfilled under ISMEP, being a project involving many organizations.

When number of the organizations in need is high or the requests from the organizations exceed budget of ISMEP, the Steering Committee will engage and list the projects according to the urgency of them.

After the requirements lists of the organizations are approved by the committee, the contracting process is started for procurement of equipment and thus the equipment is purchased and delivered to the respective organizations.

The organizations should be present in the tenders made for their requirements and in the bidding boards.

The points of highest consideration in the bidding process include transparency, competition and biding in a fair environment.

The tenders are performed as per the criteria set by the World Bank and the criteria give detailed information about work description, product or service to be purchased.

Exemplary Operations Performed Under Component A

Emergency communication vehicle

Light towers

Emergency response vehicle

Safe Life Children's Training

ISTANBUL DED Command and Control Center (Hasdal), European Side

Decontamination vehicle

Emergency discovery, operation and rescue vehicle

Safe Life Training

Safe Life Promotion Campaign (Stand)

Istanbul DED Command and Control Center, Asian Side (Akfırat)

Hunt for Hazard, Animation

Safe City Safe Life Meeting

Hunt for Hazard, Labyrinth Game

Local Disaster Volunteer Training

Rocking Chair, Drama

Istanbul International Conference on Seismic Risk Mitigation (SRMC)

Component B
Seismic Risk Mitigation for Priority Public Buildings

Component B which constitutes major part of the project concerns inspection of the priority public buildings such as schools, hospitals, dormitories, administrative and social service buildings against the seismic risk and retrofitting or reconstruction of them depending on the results of such inspection. Seismicity analysis is conducted on the public buildings under the project and then it is decided to reinforce or reconstruct the buildings according to the results obtained.

Number of public buildings reinforced or demolished and reconstructed in the scope of the seismicity analytical studies was 1002 as of December 2012, and the number of buildings under reconstruction 81 and that of the buildings in the feasibility process 239.

And taking inventory of the historical buildings under auspices of the Ministry of Culture and Tourism and seismicity risk assessment and retrofitting operations are also performed in this respect.

The following operations are performed in the scope of the Component B:

Educational Buildings

Thanks to the operations conducted at the educational buildings, the students study under healthy and safe conditions.

51% of ISMEP investment accounts for retrofitting or demolishment and reconstruction of the educational buildings.

While more than 1.5 million students have safe educational facilities due to the school investments by ISMEP, measures are taken to improve seismic safety in order to reach the target performance level for the seismic safety at the school buildings.

For the operations with the schools located at the areas densely populated by the historical buildings, great care is shown not to give any harm to the surrounding historical assets and that the buildings should adapt to them.

COMPONENT B Seismic Risk Mitigation for Priority Public Facilities

- Retrofitting Operations
- Reconstruction Operations
- Preservation of Cultural Heritage
- Public Information and Training
- Support of the National and International Disaster Preparation Operations.

We can give as a good example Valide-I Atik Mosque and Complex, built by Mimar Sinan in 1583, and Üsküdar Mustafa Noyan Primary School in the same street, which were physically reworked according to the current conditions and visually according to the historical texture. This work has been performed by the approval of the General Directorate of Cultural and Natural Heritage.

Bahçelievler Kazım Karabekir Primary School reconstructed under ISMEP has been equipped with energy-efficient systems.

Thanks to the project, Kazım Karabekir Primary School is the first state school that generates electricity by solar energy. Besides, "Solar Tree" was installed for the first time for an educational organization. Furthermore, "Energy Smart Persons Training" given at the school have raised awareness among the students, teachers and families.

Public Information and Training

Public engagement constitutes significant part of the retrofitting and reconstruction works under ISMEP.

For the operations with respect to hospitals, dormitories, social services or administrative buildings, the beneficiaries are included in the operations to formulize the projects. An as to the operations conducted with the schools, the process works differently because academic study and education is continued at another school temporarily.

"Information, Awareness and Social Guidance Operations" are performed in order that the school administrators, teachers, students and guardians may perceive the process correctly and involve with the process.

Information is given about the following matters in the social guidance operations.

- What is retrofitting?
- How is the retrofitting decision given?
- What is the basic purpose of the retrofitting studies?
- Which operations are performed on the buildings by retrofitting?
- What is it so important to reinforce the schools?
- How will retrofitting against earthquake be performed at our school?
- How long will the operations last?
- Will the study delay?
- How can we support our children?

As a result of operations for five hospitals, the target is total area of 923,000m² and 3736 beds.

Medical Buildings

In case of any possible earthquake it is vital that the hospitals and other medical organizations should continue their operation. For this reason, under ISMEP, feasibility studies are conducted for all hospitals and medical organizations in the city and non-conforming buildings are reinforced or those not proper for retrofitting are reconstructed.

By the medical investments of ISMEP, significant improvements were made in the medical sector by means of operations with Ümraniye Pediatric and Gynecology Hospital, Kartal Lütfi Kırdar Training and Research Hospital, Okmeydanı Training and Research Hospital and Marmara University Training and Research Hospital. As a result of these operations, the target is total area of 923,000m² and 3736 beds.

Marmara University Training and Research Hospital

Marmara University Training and Research Hospital where retrofitting, repair and supply operations going on is highlighted by being the first retrofitting application by the greatest seismic insulator worldwide. On a construction area of 113,000m² totally and scheduled to be put into operation in 2014, the hospital is designed to have 600 beds, 28 operation rooms and 61 intensive care units.

Göztepe Training and Research Hospital

Specialized in the pediatrics, Göztepe Training and Research Hospital is scheduled to be put into service in 2018.

Designed to be seismic insulated to provide uninterrupted service immediately after a possible earthquake, the hospital will operate as equipped with 860 beds, providing service to 1.5m outpatients and 50,000 inpatients. Construction area of the hospital is 250,000m².

Atatürk Student Dormitory under Reconstruction, Zeytinburnu

Umraniye Pediatrics and Gynecology Hospital

Started to be reconstructed in 2012, Umraniye Pediatrics and Gynecology Hospital is scheduled to complete in 2015. 330-bed hospital is constructed by the latest technology as per the applicable European and Turkish standards.

With a total construction area of 100,000m2, the hospital will have underground garages and wide green fields and these areas will serve as gathering centers in case of disaster and emergency.

Okmeydanı Training and Research Hospital

Being under reconstruction scheduled to complete in 2018, Okmeydanı Training and Research Hospital is specialized on oncology. Constructed to have a capacity of 876 beds, the hospital is seismically insulated so as to provide service just after a possible earthquake.

Equipped with energy saving system, the hospital will meet important part of its own electricity consumption by trigeneration center fueled by natural gas and its construction area is 250,000m^2.

Kartal Lütfi Kırdar Training and Research Hospital

Being under reconstruction scheduled to complete in 2017,Kartal Lütfi Kırdar Training and Research Hospital is highlighted by the technology "Earthquake Independent Building".

Reducing of the extra loads brought by the strong ground movements caused by the earthquakes by means of the advanced equipment for separation of the building vertically from the floor, "Earthquake Independent Building" has been applied successfully for years in many countries, particularly Japan, prone to seismic risk.

Total construction area of Kartal Lütfi Kırdar Training and Research Hospital is 302.853m^2.

Dormitory and Social Service Buildings

Dormitory and social service buildings demolished and reconstructed under Component B of ISMEP include Kocamustafapaşa Social and Rehabilitation Center, Fatih and Küçükyalı Sevgi Evleri, Maltepe.

Atatürk Student Dormitory Campus in Zeytinburnu, the greatest one in Istanbul, stands out among the buildings which were demolished and reconstructed under the project. With a construction area of 110,000m2, the dormitory building has the capacity of 3500 students and scheduled to complete in 2013. Because of its location, the building will also serve as shelter in case of earthquake. Renewable energy resources are used for the construction as per the applicable regulations.

Hagia Irene, its Seismic Performance Assessed and Retrofitting Project Prepared

Green building criteria to both national and international standards have been applied for the building and advanced technology fire safety systems installed.

Furthermore, dormitory and social service facilities with retrofitting and repair operations completed in the European side include Avcılar Atatürk Girls Dormitor, Bahçelievler Women's Guesthouse and Şeyh Zayed Kindergarten, Beyoğlu Istanbul Training Center, Eyü Ağaçlı Children and Youth Centre, Fatih Edirnekapi Boys Student Dormitory, Fatih Girls Dormitory, Kadırga Dormitory, Veznecilar Girls Dormitory and Şişli Hürriyeti Ebediye Boys Student Dormitory.

Among the buildings reinforced against earthquake in the Asian side include Kadıköy Marmara University Ozmen Aktar Girls Dormitory, Kartal Emrullah Turanlı Kindergarten and Üsküdar Çamlıca Fahrettin Kerim Gökay Nursing Home. Additionally, retrofitting and repair construction of Sarıyer İzzet Baysal Nursing Home continues.

Buildings Covered by the Historical and Cultural Heritage

Under this component, seismic performance of buildings of many historical and cultural heritage were assessed and structural retrofitting project was proposed against earthquake for each building.

While inventory study and seismic risk assessment of 26 historical buildings and 176 units was completed, the projects for assessment of seismic performance and structural retrofitting against earthquake were prepared for Topkapı Palace, 4th Courtyart – Mecidiye Mansion, Archeology Museum Additional and Classical Building and Hagia Irene, Sophia Museum Directorate.

Classical and additional buildings of Archeology Museu, Hagia Irene Monument and Mecidiye Mansion, three buildings with different structural typology form each other, are intended to set example for the works to be performed subsequently.

Support of the National and International Disaster Operations

In order to contribute to preservation of the rich architectural and cultural heritage of our country and transfer to the future generations, ISMEP, Yıldız Technical University, Istanbul Technical University and ICOMOS Turkish National Committee perform joint operations. "Declaration on Protection of Turkish Architectural Heritage" was prepared to act as a guide in the field and problems of concept, legislation and application.

Istanbul declaration has been prepared in the International Symposium on Protection of Cultural Heritage in case of Risk: Opportunities and Threats, hosted by ISMEP together with Yıldız Technical University, Committee on Preparation Against Risks, International Monuments and Archeological Sites Council (ICOMOS-ICORP. The declaration will be presented in the Global Disaster Forum.

Method in the Applications of Component B

Scope of Component B of ISMEP covers all public buildings constructed before the Regulation on Buildings to be Built in the Seismic Zones, which entered into force in 1998.

In the preparation stage of the operations, inventory of these building was taken. The buildings have been prioritized by criteria such as number of their occupants, number of floors, distance to fault line and location in the disaster plan. The list containing information about the buildings listed by priority has been presented to the World Bank and, once approved, the loan was utilized and operations started.

According to the criteria set by the World Bank, first the consultancy firms are determined by way of tender and the first step is taken. The consultancy firms perform seismicity analysis that is feasibility study, for the priority buildings.

As this procedure is very detailed, it takes considerable time and the consultancy firms present the report they issue for each stage to IPCU within 8 and 12 months.

The consultants have these reports approved by the academicians authorized to give approval. As a result of this report, decision is given for retrofitting or reconstruction and the result is communicated to the concerned organizations.

The basic difficulty encountered during the retrofitting activities is that people should continue working in these buildings. In order to overcome such problems, an evacuation plan is issued together with the organization using the building for the building decided to be reconstructed. Mostly the retrofitting operations, which means working on the living buildings, are performed by remaining loyal to this plan and thus any possible impairment of training or medical services is precluded.

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Before Reconstruction, Kazım Karabekir Primary School, Bahçelievler

The buildings are not only restored as per the earthquake regulation, but their functionalities such as compliance with new regulations and energy efficiency are also enhanced.

In line with the evacuation plan in question, the bidding schedule is adjusted and bidding process starts.

In the reinforced buildings, complete repair and restoration operations ranging from corridors to doors, classrooms to offices, WCs to windows are also included. While the buildings where reconstruction operations started are restored, cladding is performed for thermal insulation. During all these operations, the electric and fire regulations are observed.

Total cost of the retrofitting for the buildings decided to be reinforced is considered. If the cost exceeds 40% of the reconstruction cost of comparable size, then it is considered to be beyond economic limits and then that building is demolished and reconstructed.

The first stage for the buildings required to be demolished and reconstructed as per the feasibility report of the consulting firm is provide request for procurement to the consulting firms.

As, according to the criteria set by the World Bank, the feasibility study and reconstruction project are two different specialized fields, these two operations cannot be performed by the same consultant.

Retrofitting operations last longer than those of retrofitting in terms of design and construction due to problems with respect to zoning plans, fields, neighboring buildings and ownership.

In case of reconstruction operations, buildings greater than the original one both in size and in capacity are built because of the demand and new regulations.

After Reconstruction, Kazım Karabekir Primary School, Bahçelievler

While new schools have more classrooms and facilities, they are also constructed as per the shelter and fire regulations and all other criteria set by the Ministry of National Education.

As to the medical buildings, the capacity enhancement is achieved and the buildings are not only renovated as per the earthquake regulation, but their functionality is also increased.

As the hospital buildings not as simple as the schools, this leads to extended decision process. The medical sector should continue to operate without interruption and this may be possible only by an intensive planning.

Experience with the planning operations related to hospitals shows that even if the old hospitals are reinforced and renovated, modern medical service cannot be given due to old fashioned air-conditioning and operation room service systems and configuration of the rooms in form of wards. As it is, reconstruction is decided instead of retrofitting for such types of hospitals.

Planning studies of the hospitals last up to two years. In this process, nearly thirty meetings are held per hospital. Representatives of the Ministry of Health, Provincial Health Directorate, manager, chief physician and branch experts of the hospital in question as well as technical personnel of IPCU, Head of Health Department, Istanbul Provincial Private Administration and technical consultants attend at these meetings.

Target for construction of modern medical facilities to be used for 50 years underlies necessity of a large team, many meetings and long planning process. Considering this target, in addition to reconstruction, the hospitals are designed by taking into consideration environment, infrastructure, transportation, traffic, energy saving and use by the disabled persons as well.

We Strengthen Our Future!

Reinforcing the future of Istanbul, we have reinforced 793 buildings and demolished and reconstructed 162 buildings including schools, hospitals, dormitories, administrative and social service buildings from 2006 to 2013. Furthermore, retrofitting and reconstruction operations of 112 buildings continue. Under the project, retrofitting or reconstruction decision will be given for 239 priority buildings according to the feasibility results.

Exemplary Operations Performed under Component B

Tuzla Peyami Safa Primary School, reconstructed

Kadırga Student Dormitory, reinforced

Pendik District Security Directorate, reinforced

Okmeydanı Training and Search Hospital

Kazım Karabekir Primary/ Secondary School, Bahçelievler, reconstructed, “Solar Tree”

Information, Awareness and Social Guide Work for students training

View of Wet Floor from the reinforced and reconstructed buildings

Inner view of Paşabahçe State Hospital, reinforced

Topkapı Palace, Mecidiye Mansion, retrofitting project completed

Archeology Museum, seismic performance assessment completed and retrofitting operations in progress

Information, Awareness and Social Guide Work for teachers training

Üsküdar Mustafa Noyan Primary/ Secondary School, reconstructed in harmony with the historical setting

International Symposium on Protection of Cultural Heritage in case of Risk: Opportunities and Threats

Information, Awareness and Social Guide Work for school administrators

Dr Lütfi Kırdar Training and Research Hospital scheduled to be reconstructed

Declaration on Protection of Turkish Architectural Heritage

Component C
Enforcement of Building Code

3.8
million

Number of documents scanned, indexed with address information system integrated with the national address registration system

ISMEP Component C concerns renovation and reinforcement of the institutional and technical capacities of the district municipalities and organization of a variety of training activities to raise awareness of being prepared for disaster on local scale for more effective application and management of the process of zoning and construction licenses allowing inquiry.

The said project activities were performed by Pendik and Bağcılar Municipalities, selected as pilot municipalities and protocols signed with the Ministry of Environment and Urban Planning. In this context, the process of zoning and construction license has become suitable for inquiry, reporting and monitoring and the hardware, software and technical consultancy services for improvement of the current business process have been provided to the pilot municipalities.

In the context of the training activities, training materials and guides have been prepared for municipal executives, technical personnel and representatives of community on local basis.

The trainings were organized in the pilot municipalities.

Total 3631 civil engineers were trained in order to make eliminate lack of information about "Regulations for Buildings to be built in Seismic Zones" in all cities of Turkey.

The following activities have been performed in the scope of Component C:

COMPONENT C Enforcement of Building Code

- Transparency of the Issue of Construction License
- Training of the Civil Engineers
- Public Information and Training

Transparency of the Issue of Construction License

Improvement operations planned by ISMEP for the building license and audit process of the municipalities were realized in Bağcılar and Pendik, both selected as pilot municipalities.

With an operation to arrange geography-based data for establishment of urban information system and integration of such data with aspatial data, the title deeds, registrations, declarations and documents in the digital zoning archive have been matched with the numbering information. Furthermore, infrastructural operations have been performed for documentation management system, service desk and call center in order to organize work flow at the municipality and respective directorate and among the directorates and enhance capacity to provide better service to the citizens.

Thanks to operations conducted to give better service in the municipalities of Pendik and Bağcılar, the construction license process has considerably reduced.

In the process of switching to digital archiving after operations at the municipalities of Pendik and Bağcılar, the documents and instruments concerning all buildings in the districts of Pendik and Bağcılar were examined one by one.

All documents used by the municipalities for daily services such as zoning plan, building license and audit reports have been transferred to the digital media. By the said operation, 3 million 800 thousands of documents, under 70 main headings, have been scanned, indexed and integrated with the National Address Database (UAVT) under management of the General Directorate of Population and Nationality affairs. As a result of these operations, now the employees of the municipalities can have access to the documents on the computer much shorter without any need of physical documents and thus transactions are performed very quickly.

Additionally, circulation of the documents in the digital media is now possible at both municipalities by the signed documentation management system.

In this system, the citizens can complete their transactions with the municipality via internet. Thus all stages are traced by TR ID and thus an environment friendly and paperless system is supported.

In the scope of ISMEP, call and communication centers were established as a complementary service for e-municipality operations performed at the municipalities. With these centers, all applications made by the citizens are registered and thus requests and complaints are addressed timely and correct information is given about the municipal services.

GŞGY

Safe City Safe Life Trainings **RISK REDUCTION and PARTICIPATORY APPROACHES**

- Strategies for Reduction of Disaster-induced Damages
- Strategies for Urban Environment and Social Environment
- Urban Planning for Reduction of Disaster-induced Damages
- Risk Analysis and Risk Perception
- Sustainable Planning and Reduction of Disaster-induced Damages
- What Can We As a Society Do Against Disaster?
- Current Status Assessment and Mapping

Training Terms:

For Local Administrator : 3 Hours 30 Minutes

For Technical Personnel : 6 Hours 30 Minutes

For Social Representatives: 6 Hours

Contents and term of the training vary depending on the target groups.

3631
persons

Number of civil engineers received training

Public Information and Training

In the scope of IMPEP, in order to provide contribution to the urban disaster preparations and formation of safe settlements, trainings on "Importance of Urban Planning and Housing for Disaster-induced Damages: Safe City Safe Life" have been organized for local administrators, technical people and social representatives.

In the trainings applied in the pilot municipalities of Pendik and Bağcılar, the participants have been informed about the matters such as reduction of the disaster-induced damages and urban planning, safe settlement criteria and provided contribution to and involved with the operations.

Proposals from the operations have been reported and included in the strategic planning operations of the municipalities.

Training of Civil Engineers

Under the protocol signed with the Ministry of Environment and Urban Planning with respect to training of Civil Engineers on Earthquake Regulation, training has been given to improve knowledge of the civil engineers across Turkey on "Regulations for Buildings to be built in Seismic Zones".

After preparation of the training schedule and materials, 3631 civil engineers have attended the training in Turkey.

And in the international events with the theme of disaster-resilient city such as International Disaster and Risk Conference, experience and background of ISMEP was shared and, furthermore, national and international disaster operations are supported.

Method in the Applications of Component C

For operations performed at the municipalities for Enforcement of Building Code, C Component of ISMEP, first of all contact has been built with the municipalities of Pendik and Bağcılar and intended operation has been communicated to them.

Consultancy service has been received in the scope of current status analysis and needs assessment operation and meetings held at the municipalities of Pendik and Bağcılar. Primary objective of the project and targets to be reached have been put forward. And then both municipalities were asked to conduct an analysis about their own municipality and report the current stage with respect to the planned matters. With the results of this analysis, both municipalities have seen their own conditions and got knowledge for assessment of IPCU current conditions.

As a result of the analysis, a road map has been drawn about what types of operations should be performed.

In this process of 6 months, deficiencies of the municipalities and things required to be performed. And subsequently deficiencies of the municipalities have been assessed with the objectives and compared with ISMEP's budget and operations that can be done have been informed to the municipalities.

Fulfillment by the municipalities of the needs and requests of interest not included in the work plan, but came up later has been considered. In light of the information, the responsibilities have been mutually accepted and a protocol signed with the municipalities. And then in a process of 4-5 years, both municipalities and IPCU have fulfilled their own obligations under the protocol and completed the project successfully.

After completion of the operations, impact assessment operations were performed and it was measured whether this system applied at the pilot municipalities has enhanced capacity or not and whether the project has achieved or not.

Questions prepared and asked to the technical and public groups prior to start of the operations have been asked again after completion of the project and differences between them were considered. According to the results, it has been observed that the project has been very useful for both municipalities and capacity enhancement achieved.

Exemplary Operations to be Performed Under Component C

Address-based data collection

Transfer of the address-based data to the digital media

Organization of physical archive

Training of Technical Staff, Determination of Risks

Digital zoning archive operation

Training of Community Representatives

Disaster and Risk Conference (Davos 2012), ISMEP Stand

Switching to Electronic Document Management System at Pendik Municipality, Paper Burning Ceremony

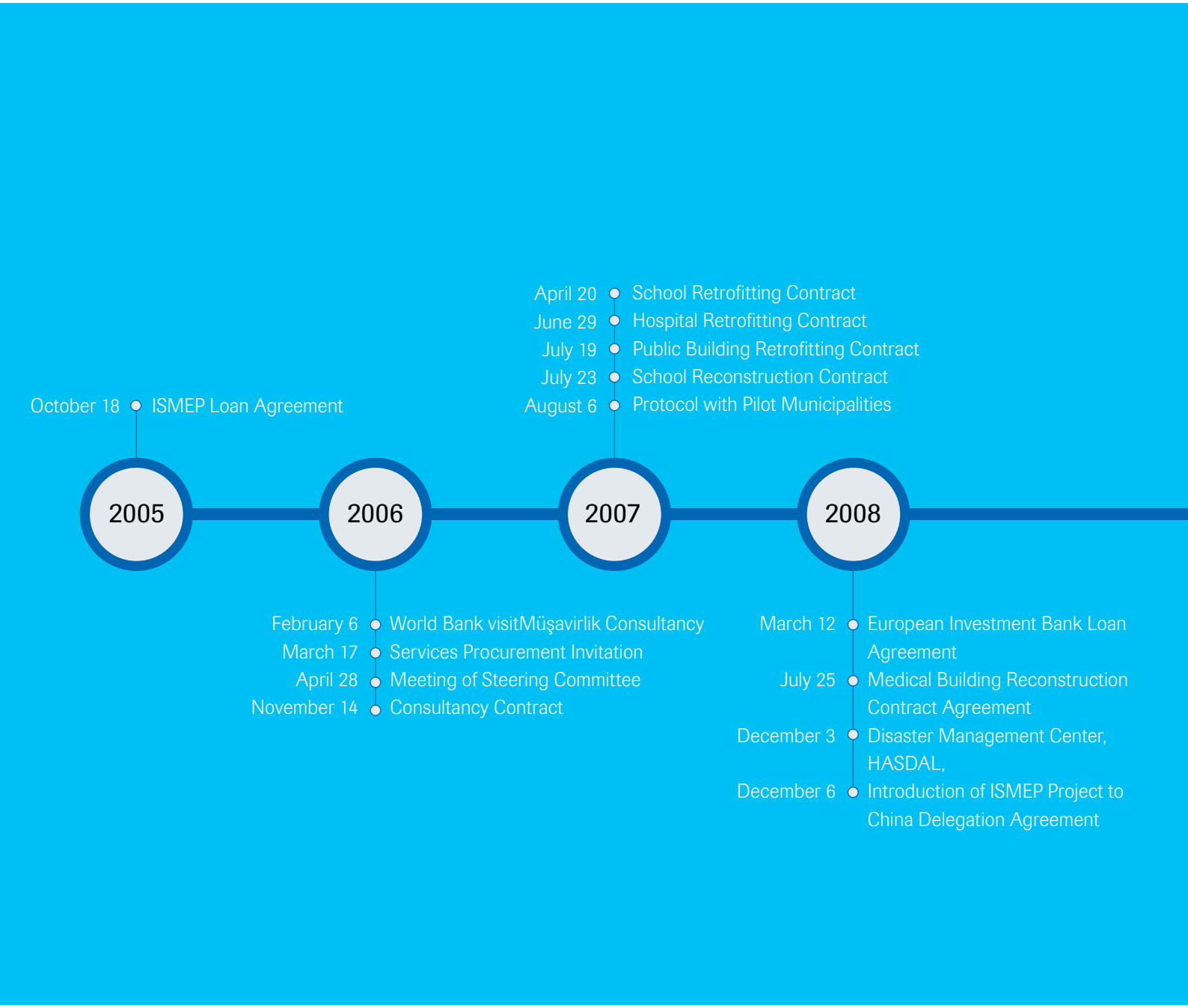
Training of Civil Engineers on Regulation

Technical Personnel Training

Local Administrators Training

Commonization Training for Local Administrators, Technical Personnel and Community Representatives

Firsts in ISMEP



Dealing with a number of operations, ISMEP project constantly adds new ones to reduce disaster risks of Istanbul

2009

- January 27 — Safe City Safe Life Training
- April 28 — Social Guidance Operation
- August 9 — Safe Life Web Broadcasting
- August 14 — National Conference (Safe City Safe Life Meeting)
- August 18 — First Volunteer Application
- August 20 — First Kid Volunteer
- November 4 — Safe Life 1 Training
- November 8 — International Conference (Istanbul SRMC)

2010

- February 1 — Delivery of Vehicle/Equipment to Directorate of Istanbul Search and Rescue Association
- February 22 — Theater Performance (Rocking Chair)
- April 26 — Safe Life Children Training
- May 7 — Local Disaster Volunteer Training
- June 29 — Delivery of Radio Broadcasting Vehicle to Istanbul DED
- October 6 — Delivery of VSAT Hub and Remote Stations to Istanbul DED

2011

- January 13 — Delivery of Decontamination system to Directorate of Istanbul Search and Rescue Association
- March 9 — Delivery f 4x4 Communication vehicles to Istanbul Provincial Health Directorate
- April 20 — School Emergency Planning Operation
- May 11 — Delivery of Mevlana Houses to Turkish Red Crescent
- June 29 — Delivery of Rescue at Water Vehicle to Istanbul Provincial Security Directorate

2012

- April — Use of e-signature at Pendik and Bağcılar Municipalities
- March 26 — Energy Efficient Smart School

Rumelian Fortress

Effects of ISMEP

Importance of ISMEP comes from developing its project not only for today, but tomorrow as well. A risk reduction project applied in Istanbul, the most developed city of Turkey in terms of economy, tourism, trade and industry, ISMEP contributes to environment, society and economy with its operations.

Social Effects

For contribution to the society, ISMEP first of all the work performed is shared with the people completely and transparently. Training programs are prepared for communication of information systematically and by a common language an then these programs are communicated free of charge to all people living in Istanbul.

Furthermore, to what extent the works have been useful for and have affected the people is controlled by impact assessment operations. These operations are conducted before and after the project, results compared and effects on the people measured.

Upon the impact assessment operations performed by taking advantage of consultancy service, data is obtained on the point required to be improved and what should be done or not and the data is transferred to the subsequent projects.

In the impact assessment operations performed with respect to the implementations of the Project on Making the Zoning and Building Code Effective at the pilot municipalities of Pendik and Bağcılar, for example, surveys have been conducted to determine whether new systems have enhanced capacity or not and whether the project has been successful or not. Before start of the operations, surveys were conducted with the people to benefit from the project and with the technical groups. And the same surveys were made again after completion of the project and the results compared to determine the differences between the start and completion of the operations. The data obtained have shown that a high degree of benefit has been provided and capacity enhancement has been achieved.

Communication of the quality of the work performed via the employees taking place in the project is considered as another effect of ISMET for the society. Performance of all projects on certain principles ensures conduct of them by high degree professionalism and without compromise on quality, not by relying on secondhand information,

ISMEP As a Social Project

It is expected that experience obtained from the operations performed for measuring the social impact will set an example to increase public involvement with respect to the intended urban transformation operations in Istanbul. In all operations of ISMEP:

- if the social projects are disapprove by the people, the project is considered to have failed and high consideration is given to this point at every stage;
- impact assessment operations are performed for measuring social impact and elimination of deficiencies;
- projects are produced to transfer to the future the information and experience gained when working for the welfare of the society.

Accordingly, a foreman working in different parts of building construction may receive new information from the engineer of the consulting firm in accordance with the principles of ISMEP. In this way, he may become aware of any improper application he might have done so far and replace them with new information to the world standards. As frequent control is performed to determine whether the work performed under the project comply with such new information, it is impossible for the foreman not to learn an apply them. At the end of this process, the workers continue to use and transfer the correct information to other workers around in the construction.

And thus while the workforce to be used for construction operations under the urban transformation projects, which rank high in the agenda of Istanbul perform their work by correct information, they also build a sound future in a sense.

That all operations are performed at the areas where that more people estimated to be adversely affected in case of a disaster appears as new factors affecting the society.
As the schools, dormitories and other public buildings built as per the international rules and applicable laws will not be damaged in case of a possible earthquake, people will also use such buildings as disaster centers and, if require, living space.

As usual before and after each operation, the impact assessment operations performed also provide insight whether the desired results have been obtained or not.
In this context, before and after retrofitting or reconstruction operations, the students, guardians and school personnel are asked whether they are satisfied with the results and whether they believe in benefit of the retrofitting operations.

In order to have feedback from the people and, in case of any problem, to bring solution in the subsequent operations, the people are also made involved with the operations by means of questions prepared together with sociologists. A a result of this impact assessment operations, a good and positive sense of reliability, “the government does something good for my child and for me”.
The positive result and method is included in the project deliverables, serving as a scientific indicator that the retrofitting operations are on the right track.

Environmental Effects

Environmental Effects
Focusing on retrofitting and reconstruction to minimize the damages Istanbul may suffer in case of disasters, it has been found out soon that a comprehensive renovation operation would be more suitable. In this line, as per the requirements of new regulations such as those on fire and energy-saving buildings, some additions were made in the operations.

The schools required to be reinforced and reconstructed may include those in range of 20 and 40 years, which have received no service during this period. When retrofitting operations are started, a number of improvement activities are also performed for such buildings from conversion to natural gas to change of the window panes, drainage to thermal insulation and change of the roof or repainting all spaces.

Of course, all these things bring high satisfaction of the people. Furthermore, energy saving up to 40% is achieved and the buildings comply with the new regulations. There is a general environmental management plan prepared for ISMEP and this plan is taken as basis for each construction site. Environmental management plans specific to the site are drawn up and the points laid down in these plans are observed. Thus while qualified projects are provided, great care is shown to the human beings and nature. Great sensitivity is shown to a number of matters from measures taken no to disturb the community to protection of the flora of the site; waste management to efficient and effective use of water and energy at the buildings.

Additionally, “Green Building” operations, recently attracted great interest worldwide, are also in the agenda. And energy systems, both hygienic and meet heating-cooling requirements of the building in itself, are also installed. “Green Building” concept, cited such as ecologic, environment-friendly and similar names, are defined as nature-compliant structures.

All stages at the design and construction of the building starting from choice of land are dealt with a social and environmental responsibility an assessed in the framework of a life circle. Natural and waste-free materials are used with removable energy sources compliant with the regional climate and specific environmental conditions, consuming just as they need. Thus eco-buildings encouraging involvement is obtained.

Contribution of ISMEP to Istanbul Economy

With the loss reduction operations performed under ISMEP, the economic loss that Istanbul may suffer due to possible disaster and, furthermore, it will bring many indirect benefits for the economy of the city.

With the operations of ISMEP:

- An indirect economy is created as a result of operations in many sector in Istanbul;
- Social guidance and training activities increase awareness in the society, resulting in the reduction of the estimated loss after disaster; and
- Istanbul, which accounts for 40% of GDP of Turkey, consequently largely the national economy, is protected.

TIn addition, ISMEP wishes to do a first among the public organizations by receiving LEED certificate for the hospital it constructs, which means environment-friendly and energy-saving buildings.

Leadership in Energy and Environmental Design (LEED) is a set of criteria developed by the United States Green Building Council (USGBC). LEED certificate is given by this council upon application made to it. In this line, the hospitals to be constructed in Okmeydanı, Kartal and Göztepe will comply with the Green Building standards. They will be the first hospitals to have certificate of Green Building in Turkey.

Considering the fact that the buildings and settlements produce 40% of the carbon dioxide emission, a primary greenhouse gas, which causes global heating, contribution of the hospitals to be built by ISMEN as per the Green Building concept clearly appears. And this effect is not limited to the carbon dioxide gas they emit. And these buildings and settlements also account for about 12 of water consumption 65 of the waste and 71% of power consumption.

These high figures also mean there is a great hidden potential for reduction of the effects of the buildings on the environment. The studies show that the buildings, called “green” or “environmental”, ensure reduction in the carbon dioxide by 24-50% water consumption by 33-39% and waste up to 70%.

And the environmental sustainability during ISMEP operations is assured by minimization of the waste, recycling of the materials used in the construction of the building, controlled use of water and energy consumption after the building is put into service.

Green building concept is not limited to these characteristics. There are also operations for increase of the life quality of the patients and personnel. We aim at providing better working conditions for the personnel and shorter recovery time for the patients, giving due consideration that the buildings should take much more daylight and restriction of use of materials that may give harm to the people.

Contribution to the national economy each month thanks to the operations performed under ISMEP

Economic Effects

Looking at the economic effect of 1999 Marmara Earthquake, it is seen that this 45-second natural event has wasted 5% of GDP of Turkey.

Furthermore, looking at the growth figures recently reported and considering that annual growth of the nation almost matches to that figure, we may clearly see the extent of the los. If such an earthquake occurs in Istanbul, the direct result of it will be of such extent at least; however, together with the indirect loss to be caused the subsequent impairment of the industry, import and export, it will destroy growth of Turkey for long years. One of the fundamental objectives of ISMEP operations is to further reduce every day the loss Istanbul may economically suffer.

In Istanbul, individual measures to be taken by the people in their living spaces and their action with respect to resistance of their houses against earthquake; retrofitting and reconstruction of the public buildings; and trainings received by the engineers about regulation on the buildings to be built in the earthquake zones all are for minimization of the economic loss that Istanbul may suffer.

Besides, the project will have a contribution to the national economy about TRY43m.

Environmental Approach of ISMEP

To perform environment-friendly applications to set example for ISMEP system is among the most important principles for sustainability of the project. And the significance given to the energy management shows itself in each operation.
In all applications of ISMEP:

- Environmental effects are carefully monitored and a performance above the legal liabilities is intended;
- All actions are performed by being aware of the value of the resources to be required by the future generation;
- Minimization of the environmental effects is considered as part of the correct and proper performance of the works;
- Great effort is made for raising awareness of environment, aiming at formation of the same awareness on part of all stakeholders.

Budget of ISMEP, which brought dynamism especially in the construction market, spreads over a number of different branches, including subcontractors and consultants, construction teams, workers and contractors. Thus many people are positively affected and economy dynamism is supported.

The project has also a clear benefit for employment. Although the core staff of IPCU is consisted of 33 persons, the operations are performed by a team consisting more than 500 persons in number.

ISMEP Project Overall Assessment

With the operation to be conducted for overall assessment of ISMEP Project, the results and effects from the project activities and sustainability of the organizations and stakeholders of the project will be assessed.

With this assessment to be performed by the international audit and consulting firm, needs appraisal will be conducted and proposals will be made in order that ISMEP project activities may become more successfully and effective.

The achievements, successful and efficient points as well as whether all project activities have been conducted as per the objectives of the project will be assessed.

Process of finance and project management together with all technical and social project activities will be held under the microscope in terms of project implementation, monitoring/ assessment process, involvement and sustainability by means of an analytical method which also includes stakeholders of ISMEP project.

The said operation will be the first one where a public project is assessed in all respects.

International Achievement of ISMEP

A first in Turkey, ISMEP is distinguished from the counterparts worldwide in terms its budge, planning method and successful implementation for years.

One of the most important characteristics of ISMEP, a worldly recognized risk reduction project, is the fact that there is no other risk reduction project worldwide in such scale. Furthermore, another distinguishing aspect of it is that the project is implemented in Istanbul, which is the capital of the history, culture and economy and, universally, capital city of world heritages.

Under ISMEP, rehabilitation of the buildings currently used by important sectors such as medical and training in a mega-city with a population about 15 million demonstrates how difficult the planning and implementation stages of the project.

Proposals are received from many places worldwide to present ISMEP in their cities. Thanks to the wide network of the World Bank and United Nations, its agencies in all parts of the world operate in coordination.

Once the project deliverables of a project, which is implemented successfully and supported by the World Wide become noticeable, the said network starts to operate and information about it spreads quickly. Thus the recipient countries gain both vision and motivation because quite systematic works should be planned for such an issue as risk reduction. And ISMEP sheds light for other projects as a good and systematic planning
.
The more shared the pr eparation and implementation process, deliverables and vision in the international community, the more it takes attention. And, consequently, it increases number of invitations received for presentation of the project and number of foreign teams that desire to see the project operations on site.

Robert B.Zoellick, Group Head, World Bank, Receiving Information About Safe Life Volunteers Project

IPCU attends many international conferences and makes presentations with its technical team and consultants. And in these events, ISMEP receives positive responses and great appreciation to the effect that there is no such versatile project worldwide.

Cited among "Best Practice" abroad and a first in Turkey, ISMEP is distinguished from the counterparts worldwide in terms its budge, planning method and successful implementation for years.

The technical experts of the World Bank state that Turkey, together with USA and Japan, is one of the three countries specialized

ISMEP in International Media

Appeared in the documentary "Greatest Investments" broadcasted by CNN International in 2010, ISMEP has been declared as one of the biggest projects for preparedness against earthquake.

In the worldly known documentary where retrofitting operations for Paşabahçe State Hospital were examined, it was called as "Giant Project of Istanbul".

ISMEP Project was also introduced by a news article "Solution in the Pipeline", Financial Times in 2012.

The news wrote about it as a project with a budget of 1.2 billion Euro, focusing on enhancement of the emergency management and response capacities, training of the volunteers and raising awareness among the community and making the hospitals, schools and other public buildings in Istanbul resilient against the earthquake.

Furthermore, it also stated "Istanbul is frequently cited as an international model for preparedness against disaster", highlighting the pioneer role of ISMEP among the similar projects.

Countries Where ISMEP is Represented

ISMEP is a project not only achieved lots of things in the matter of Risk Management, but it is an exemplary project sharing its information accumulated in this with in 25 countries by means of events more than 40 in number.

Future of ISMEP

New focus of the operations is transfer of knowledge and experience of the organization in the field of urban disaster risk management, the core field, by means of capacity development programs and sustainable buildings.

Sustainability by Corporate Cooperation and Capacity Development Programs

Sustainability by Corporate Cooperation and Capacity Development Programs
IPCU continues comprehensive investments and preparations against disasters throughout Istanbul and it has developed its own organizational and technical capacity over years and implemented effective cooperation programs together with the stakeholder organizations and society, thus setting exemplary models.

A successful example of a project management designed correctly in the field of disaster risk mitigation, ISMEP receives interest an appreciation of the national and international organizations with the increasing number of invitations for cooperation every day.

New focus of the operations is transfer of knowledge and experience of the organization in the field of urban disaster risk management, the core field, by means of capacity development programs and sustainable buildings.

For this purpose, in addition to the current infrastructural investments and technical solution applications, a variety of capacity development programs have been designed and put into effect as well.

In line with the requirements of the disaster sector in our country and national and sustainable development priorities, the areas that ISMEY may contribute have been determined and these programs are developed and implemented with a participatory approach.

In these operations, including development of disaster management capacity of the organizations in charge of disaster preparations in Istanbul and preparation of standard disaster and emergency plans for schools, IPCU provides support for project development, training, implementation and finance b means of cooperation with the organizations, taking into consideration specific requirements of the organizations.

Safe Life Volunteering System Workshop, Istanbul

New Project applications in line with Requirements of Istanbul

One of the higher organizations configuring disaster preparations in Istanbul, IPCU aims to continue large-scale projects for safe future of our city, one of the most important mega-cities of Turkey and world, which require corporate leadership and coordination during its term of office and produce permanent solution in the fields under the responsibility of the state.

Focusing on contributions of disaster risk mitigation operations to the sustainable development efforts, new projects are treated with a visionary approach and in compliance with the cultural, social and economic targets to shape, together with respective organizations, future of Istanbul.

Urban Disaster Risk Management Strategic Plan and Istanbul Disaster Volunteering System

Preparation of "Urban Disaster Risk Management Strategic Plan", which will integrate operations performed for the city and contribute to the urban transformation operations as well as "Istanbul Disaster Volunteering System" may be shown as examples for the project the organization intends to realize in the subsequent period.

Correctly analyzed the requirements of Istanbul at the beginning of the project and then provided solutions accordingly and then became example for the world in this field, IPCU continues its operations by transforming ne projects to contribute to safe future of the city into concrete, successful and permanent applications by means of its management, coordination and applications facilities.

Correctly analyzed the requirements of Istanbul at the beginning of the project and then provided solutions accordingly and then became example for the world in this field, IPCU continues its operations.

Excellence center, established to come together and develop the scientific studies in Turkey, also aims at sharing and transferring the operations performed and knowledge and experience gained under ISMEP on national and international scale, comprehensively and deeply with other organizations and stakeholders.

Experience and Information Sharing: Establishment of Excellence Center

Idea of establishment of an excellence center in Istanbul is based on transfer of the knowledge and experience gained in the process of ISMEP and sustainability of the project in the field of disaster risk mitigation.

Excellence centers are defined as "places aiming at the success in a certain matter of field of activity to the highest standards. tanımlanmaktadır.

In the excellence center, performance of world class researches and technological development operations in the fields of measurable scientific production and technologic innovation is planned.

While an excellence center to be established in Istanbul is expected to be a research and application center which will become active on international scale as well by development of expertise and experience, it is also anticipated to help Turkey establish framework and mechanisms of sustainable disaster management.

In the operations performed in our country in recent years, important steps have been taken to encourage establishment of such a center.

International conference on seismic Risk Mitigation, Istanbul

Especially in the report issued by the Parliament Research Commission related to the matter in 2010, importance have been given to effective contribution of each individual and part of the society by means of initiatives under the headings including development of social conscious, raising awareness, adoption of responsibilities, formation of a society that can configure itself, access to information and taking advantage of good examples.

With the said center, together with ISMEP and universities particularly, it will become possible to share comprehensively and deeply with other organizations and stakeholders all knowledge about the matter of disaster in Turkey and operations performed by the organizations on national and international scale.

Furthermore, the said excellence center intended to be established in Turkey receives intensive support from the United Nations and World Bank.

Formation of qualified workforce, support to the industrial development together with integrated and versatile project activities of ISMEP project for mitigation of disaster-induced loss contribute to development in the disaster related sectors on national and international scale.

Particularly methods used in the construction sector, software developments in the information management systems, development activities for increase of institutional response capacity, innovative methods and social impact assessment all affect many branches of the industry.

Furthermore, with ISMEP, it has become possible to generate a pool of experts including qualified technical persons taking place in all projects related to disaster.

Thus experience and knowledge obtained by the experts of all related fields with respect to mitigation of the disaster damages and setting a model in our country in the field of disaster has become possible.

For a Disaster-Resilient City...

All steps specified by the United Nations for a "disaster-resilient city" have been taken by ISMEP.

In most of the disaster preparedness operations in the world, the term earthquake-resilient city is defined. Leading all operations in the world, the United Nations recommends the following steps to be taken for an earthquake-resilient city.

Form local solidarity

In order to understand and mitigate disaster risk, set in motion organization and coordination basing on the citizens and non-governmental organizations. Ensure all units to understand their own roles in the mitigation of disaster risks and preparations.

Provide investment incentives

Allocate budget for mitigation of disaster risk and provide investment incentives to the low-income families, communities, organizations and public sector to mitigate the risks they are face to face.

Prepare risk assessments hazırlayın

Continue to update data on the risks and vulnerability, prepare risk assessments and use them as basis for urban development plans and decisions. For resilience of your city, ensure such information and plan are available to and discussed with the society completely.

Make investments on critical infrastructure

In order to overcome climate change, make investment and maintain critical infrastructure such as flood sewerage to mitigate the risks.

Solidarity for Safe Future of Istanbul, ADMIP Meeting

Ensure safety of schools and medical organizations

Assess and, if required, renovate safety of all schools and medical organizations.

Enforce and cause to enforce the zoning and building code

Enforce realistic, risk compliant building zone and land usage planning principles. Allocate safe lands for low-income citizens and renovate the informal settlements at appropriate places.

Organize social training

Provide training programs on site and training at the schools and local communities for mitigation of the disaster risks.

Protect ecosystems

In order to mitigate flood, tsunami and other risks that may cause damage to your city, protect ecosystems and other natural bumpers. Adapt the good risk mitigation applications to the climate change.

Install early alarm systems and emergency management systems

Install early alarm systems and emergency management capabilities in your city and perform regular drills for the public.

Provide support on site and cooperate with the social organizations after the disaster

After any disaster, you should provide requirements of the survivals at the center of remonstration and give necessary support to design and apply intervention with them and social organizations.

Safe City Safe Life with ISMEP

Component A

Risk Assessments
Integrated Urban Disaster Risk Management Strategy

Critical Infrastructure Investments and Institutional Capacity Development
Development of Institutional Capability of Istanbul DED Disaster and Emergency Information System Disaster Response and Rescue Vehicles and Equipment

Early Alarm Systems and Emergency Management Systems
Emergency Communications System

Social Trainings and Awareness
Trainings
Campaigns

Component B

Safety of Priority Buildings such as Schools and Medical Organizations
Schools
Hospitals, Polyclinics and Health Care Centers
Dormitories
Historical Cultural Buildings

Protection of Ecosystems and Historical Cultural Heritage
Energy-efficient Smart School
Leed Gold Certificated Hospital
School Harmonious with Historical Structures

Shown as an example by the United Nations with respect to operations for preparation against disaster, ISMEP have been performing a number of operations containing ten steps throughout Istanbul.

Component C

Effective Application of Zoning and Building Code

Building License Monitoring Systems
Capacity Development and Improvement Plans in the Municipalities
Trainings for Local Administrators, Technical Personnel and Community Representative
Civil Engineers Training

Sustainability

Sustainability

Local Solidarity
Istanbul ADMIP Local Disaster Volunteer

Investment Incentives

Increase of Technical Capabilitiesı

Support on site and Cooperation with NGOs after Disaster

Volunteering System
Social Contract Platform

Excellence Center

When performing these operations, ISMEP:

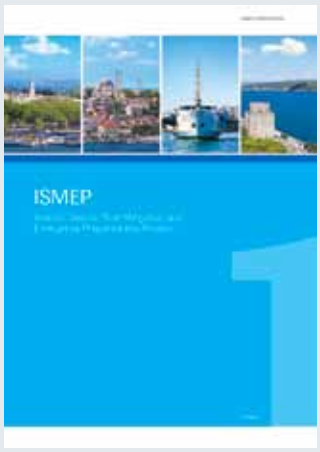
- Operates in a structure incorporating them with a wide network of stakeholders;
- Shares experience, good application and progress with the participants in the campaign an other cities;
- Operates in a close cooperation with the center administration and local administrations;
- Builds local partnerships and alliances with the non-governmental organizations;
- Cooperates with local and national universities regarding hazard monitoring, risk assessment and research methods to form resilience in Istanbul;
- Adapts targets and messages of the campaigns it conducts to all parts of the society;
- Holds organizations raising awareness on important dates such as August 17 Marmara Earthquake, November 11 Düzce Earthquake and March 1-7 Earthquake Week; and
- Shows environmental-sensitive approaches such as energy-efficiency in its operations.

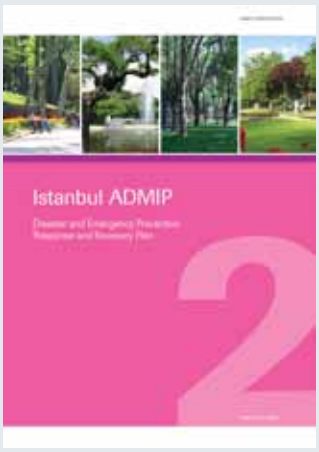
ISMEP by Numbers

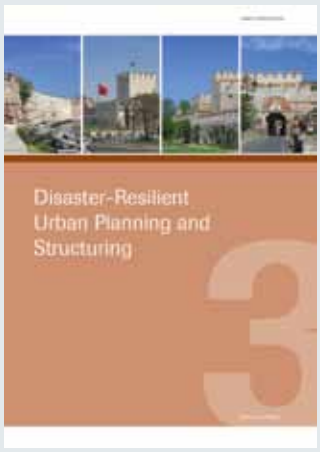
620.000	PERSONS	PEOPLE IN ISTANBUL RECEIVED TRAINING UNDER ISMEP
85.000	PERSONS	SAFE LIFE VOLUNTEERS
5.500.000	PERSONS	PEOPLE IN ISTANBUL RECEIVED INFORMATION MATERIAL
1.500.000	STUDENTS	STUDY AT SCHOOLS REINFORCED /RECONSTRUCTED
1.955.890	m^2	AREA OF SCHOOL BUILDINGS
1.126.568	m^2	AREA OF SCHOOLS DEMOLISHED AND RECONSTRUCTED
923.000	m^2	AREA OF HOSPITALS TO BE BUILT IN ISTANBUL
4.660.183	m^2	TOTAL AREA OF PUBLIC BUILDINGS REINFORCED AND RECONSTRUCTED
43.000.000	TL	MONTHLY CONTRIBUTION TO NATIONAL ECONOMY

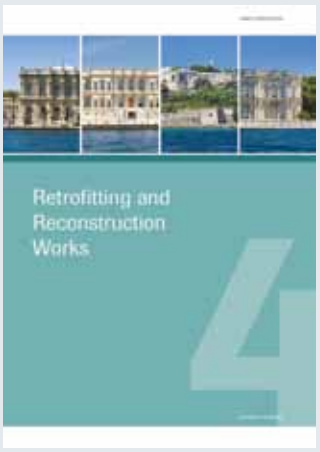
The number given above covers the period up to December 2013. ISMEP Project will continue till 2019.

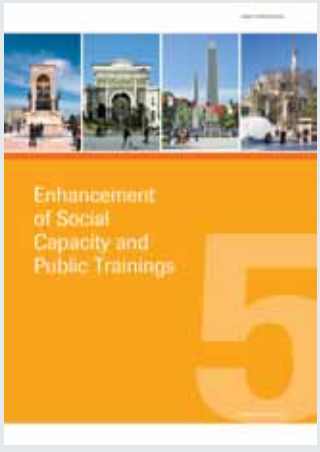
ISMEP Guide Books

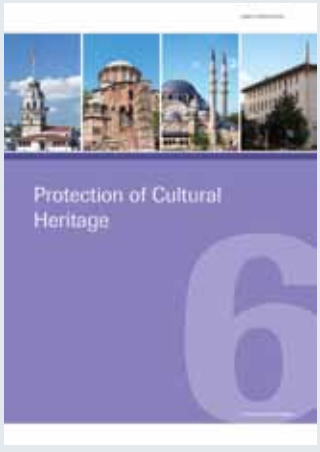


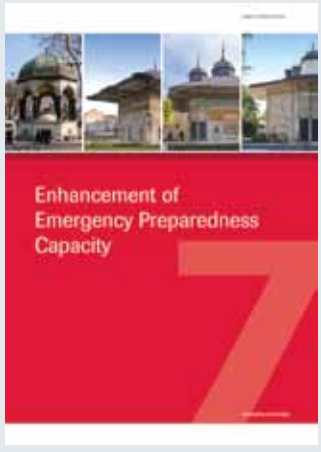


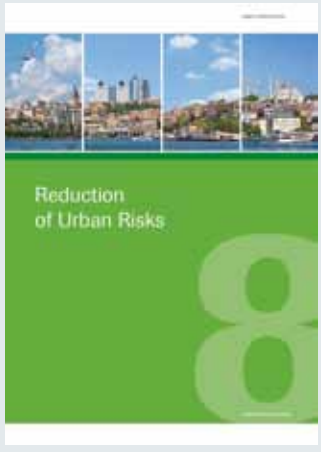












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