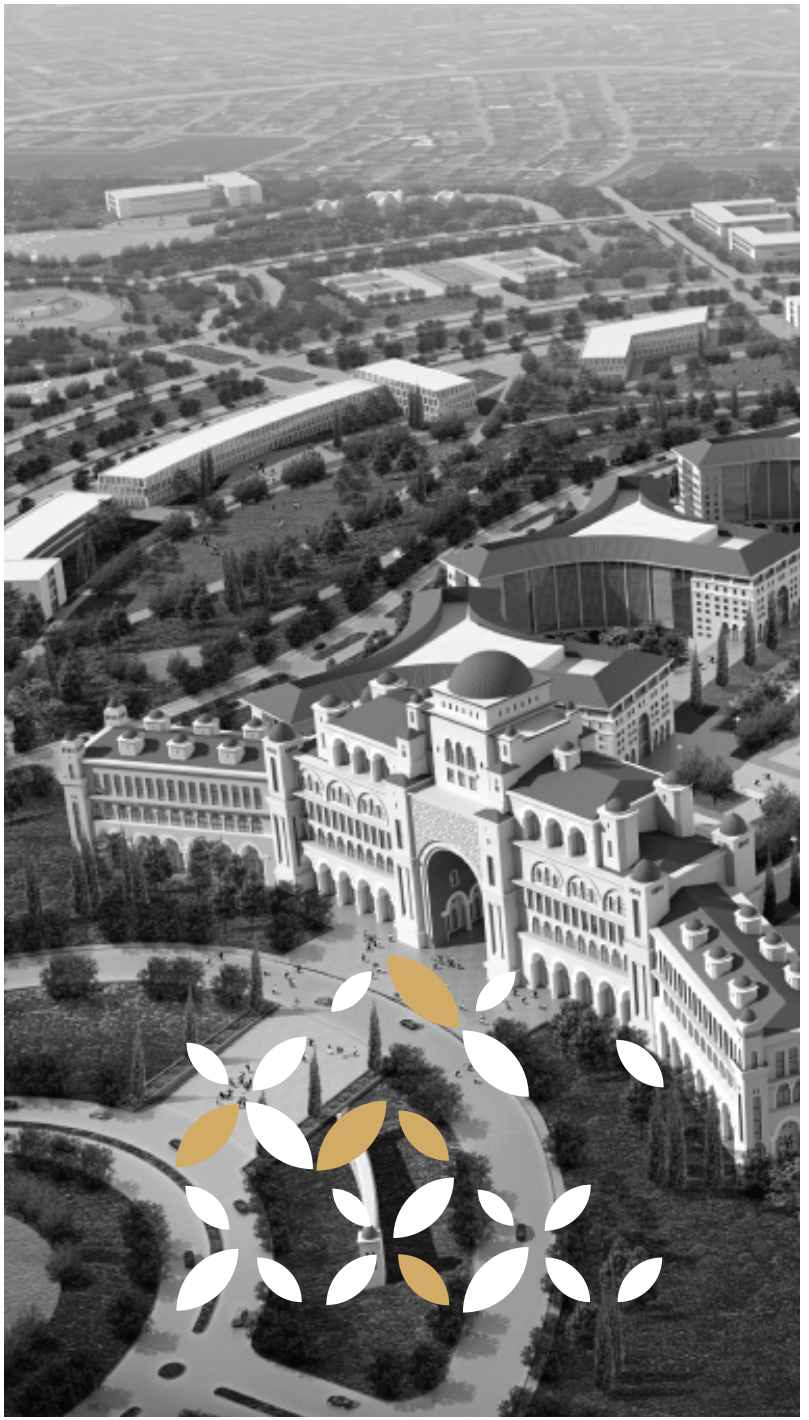
PROTEK-YAPI®
Engineering Consultancy

Company **Profile**

Profile **Content**



About **Protek-Yapi**

Protek-Yapi Engineering Consultancy Corporation (Protek-Yapi) is an engineering and consultancy firm committed to fostering a safe, thriving, and sustainable environment for all individuals. Our objective is to foster ingenuity and progressive thinking in the pursuit of intelligent and sustainable solutions to support communities, organizations, and local governments. Protek-Yapi ECC was founded in 2008 and has evolved into a pioneering global engineering and management consultancy since 2014. Headquartered in Türkiye and operating through a network of offices globally, Protek Yapi focuses primarily on three key areas of specialization:

- Project Management Consultancy Services including project management and supervision, procurement services, financial and municipal credibility analysis, projects identification services, feasibility studies and needs analysis, event management, and capacity building program.

- Planning and Design Consultancy Services including development of city master plan, city and municipality strategic plan, urban transformation and regeneration plan, sustainable urban mobility plan, transportation master plan, environmental and social impact studies, risk sensitive land use plan, resilience master plan, and post disaster planning services.

- Engineering Consultancy Services including hazard, risk and vulnerability assessment, structural design and rehabilitation, renewable energy calculation and design (solar, wind, hydropower), environmental infrastructure calculation and design (water and wastewater), green and energy efficient architecture, climate change adaptation and mitigation.

PROTEK-YAPI®
Engineering Consultancy

Worldwide **Footprint**

7 International Offices
(Turkey, Poland, Croatia, Georgia, Bangladesh, Iraq, Saudi Arabia)

400+ Personnel

30+ Successful Projects in the Field of Climate Sensitive & Sustainable City

20+ Successful Projects in the Field of Seismic Design & Rehabilitation of Building

50+ Successful Projects in the Field of Hazard, Vulnerability & Risk Assessment

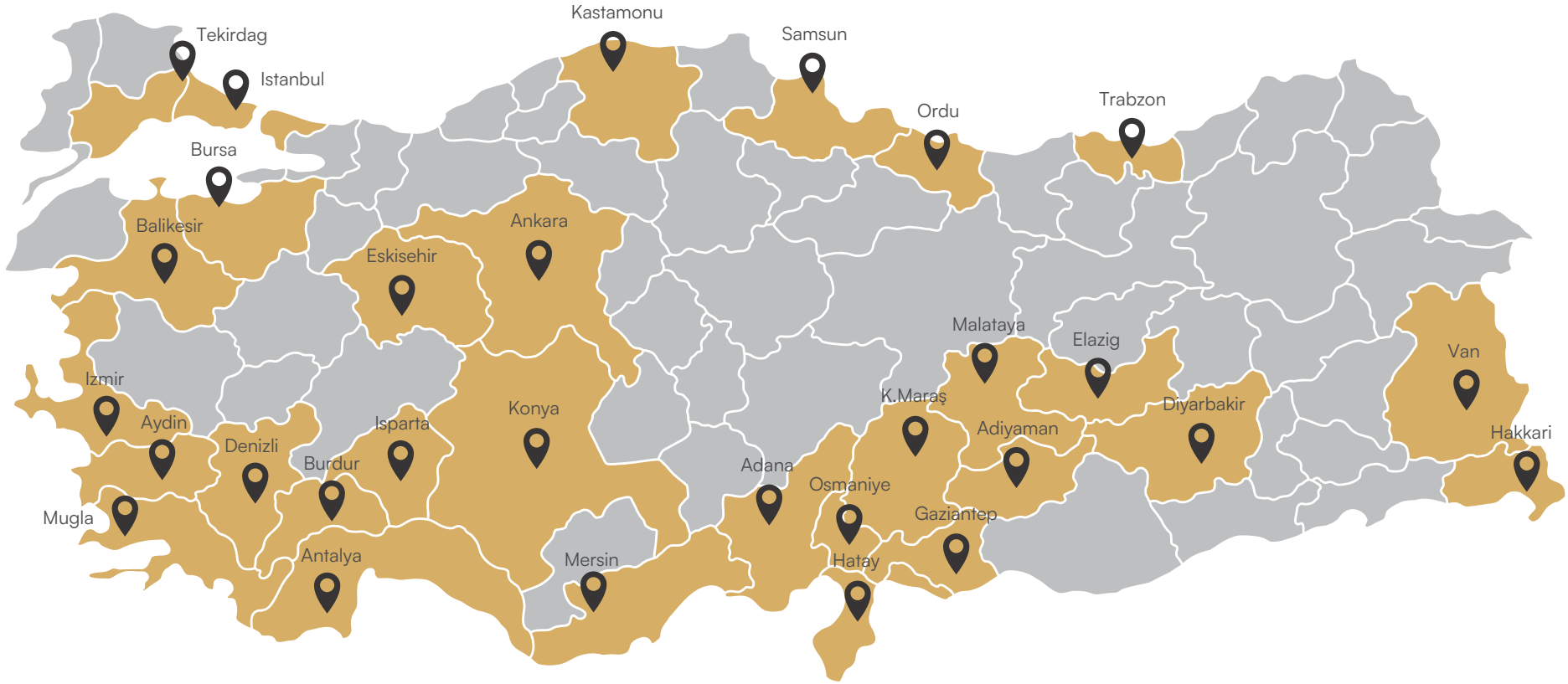
5.7+ M sqm of Buildings Rapid Visual Assessment

3+ M sqm of Preliminary & Detailed Engineering Assessment

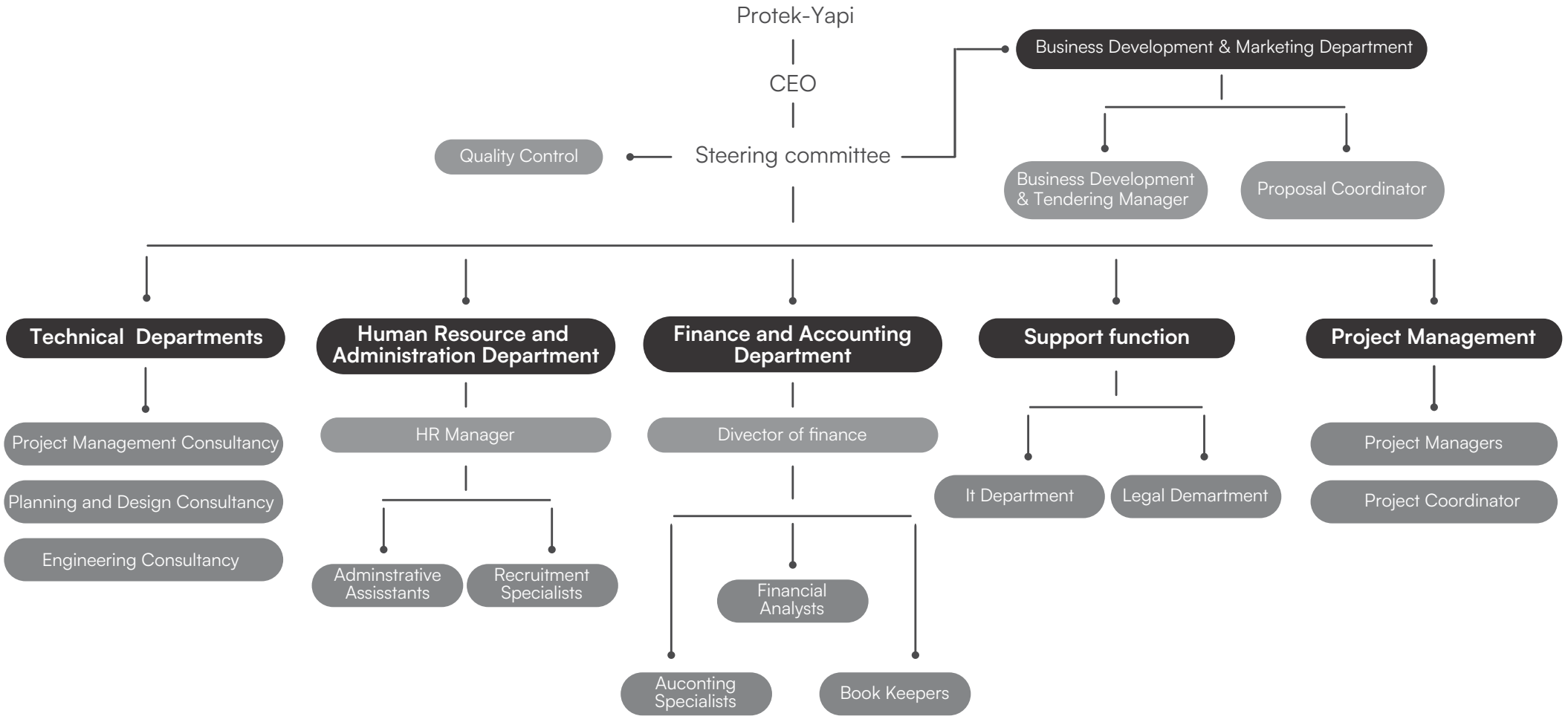
10+ Guidelines/ Manuals/ Toolkits

20+ Feasibility Study and Infrastructures Financing Projects

National **Footprint**



Protek-Yapi **Organization**



Staffing **Capacity**

We have gathered a collection of the best and most efficient experts in each field to give you the best sense of cooperation

- Architect
- Building Information Modeling (BIM) Specialist
- Civil Engineer
- Cost Estimator
- Construction Project Manager
- Construction Scheduler
- Economist
- Environmental Expert
- Feasibility Expert
- Geotechnical Engineer
- Landscape Designer
- Legal Expert
- MEP Engineer
- Procurement Specialist
- Quality Control Inspector
- Risk Management Expert
- Safety Consultant
- Sustainability Expert
- Transportation Engineer
- Transportation Planner
- Urban Designer
- Urban Planner

International **Clients**

- World Bank
- The United Nations Office for Project Services (UNOPS)
- The United Nations Children's Fund (UNICEF)
- United Nations Development Programme (UNDP)
- UN-HABITAT
- Japan International Cooperation Agency (JICA)
- The Council of Europe Development Bank (CEB)
- European commission
- European investment bank
- European Bank for Reconstruction and Development (EBRD)
- French Development Agency
- Bureau for Humanitarian Assistance (BHA)
- Catholic Relief Services (CRS)
- Habitat for Humanity (HFH)
- Aga Khan Development Network (AKDN)
- Aga Khan Health Services (AKHS)
- Aga Khan Agency for Habitat (AKAH)
- Aga Khan Educational Services (AKES)
- Focus Humanitarian Assistance (FOCUS)
- Disaster Risk Management Initiative (DRMI)

National **Clients**

- Ministry of Environment, Urbanisation and Climate Change of Turkey
- Ministry of Transport and Infrastructure of Turkey
- Ministry of Health
- Ministry of National Education
- Ministry of Agriculture and Forestry
- Ministry of Energy and Natural Resources
- Ministry of the Interior
- Ministry of Industry and Technology
- AFAD
- İlbank
- Istanbul Metropolitan Municipality
- Ankara Metropolitan Municipality
- Gaziantep Metropolitan Municipality
- Adıyaman Municipality
- Şanlıurfa Metropolitan Municipality
- Eskisehir Büyüksehir Metropolitan Municipality
- Osmaniye Municipality
- Malatya Metropolitan Municipality
- Tekirdağ Metropolitan Municipality
- Diyarbakır Metropolitan Municipality
- Hatay Metropolitan Municipality
- Kahramanmaraş Metropolitan Municipality
- Ordu Metropolitan Municipality
- Bursa Metropolitan Municipality
- Aydin Metropolitan Municipality
- Antalya Metropolitan Municipality
- Adana Metropolitan Municipality
- Trabzon Metropolitan Municipality
- Muğla Metropolitan Municipality
- Denizli Metropolitan Municipality
- Samsun Metropolitan Municipality
- Mersin Metropolitan Municipality
- Burdur Municipality
- Balıkesir Metropolitan Municipality
- Kastamonu Municipality

Our **Partners**

- RTI International
- EY
- Miyamoto International
- AESA - Agriconsulting Europe SA
- NKY Architects and Engineers
- TIMA Engineering
- PBK Achitectsr
- VESTA ECC
- Temelsu International Engineering Services
- MEGA Engineering Consulting
- Diyalog 360
- ISETIA
- Prova Teknoloji
- WEKA
- Idea grup

Area of **Expertise**

A. Project Management Consultancy

A.1. Project Management

Our expertise lies in the realm of portfolio project management, characterized by a wealth of experience and a demonstrated history of successfully executing complex, multi-stakeholder projects across various regions. Our expertise encompasses a comprehensive range of project management activities, including procurement, evaluation, monitoring, and implementation management services, all facilitated through the utilization of cutting-edge technologies and tools. We possess a comprehensive history of facilitating the seamless execution of projects for our clients, offering essential administrative, financial, and technx ical support throughout the process. We possess considerable expertise in establishing enduring agreements with our clients to deliver sustainable and efficient project management services.

A.2. Project Financing

With in-depth knowledge of the operational frameworks and guidelines of international financial institutions (IFIs) such as The World Bank, EIB, EBRD, CEB, AFD, JICA, ADB, and IsDB, we ensure seamless execution and compliance. Our team has established strong partnerships with leading organizations like USAID, ILBANK, AKDN affiliates, and Catholic Relief Services, successfully managing projects that drive resilience and sustainable development worldwide. From Türkiye and Georgia to Afghanistan, Bangladesh, and beyond, our work has contributed to infrastructure and institutional resilience in over a dozen countries. By fostering collaboration with international organizations and government institutions, we deliver results that align with global standards and local priorities, building trust and delivering impact at every stage of project management.

A.3. Event Management and Capacity Building Program

Our Event Management and Capacity Building expertise is centered on fostering sustainable development by equipping organizations, individuals, and communities with the knowledge and skills necessary for long-term success. We manage educational events encompassing sessions, conferences, boot camps, field visits, and more, ensuring the provision of all essential accommodations, logistics, venues, equipment, and catering services of the highest quality. We design tailored programs that engage key stakeholders, including local communities, employees, and partners, throughout the entire project lifecycle. These programs aim to strengthen both technical expertise and strategic decision-making abilities, ensuring that participants can effectively contribute to project goals. By facilitating interactive training sessions, knowledge exchange, and the sharing of region-specific best practices, we empower participants to tackle challenges, enhance project outcomes, and create lasting positive impacts that extend beyond individual initiatives.

A.4. Supervision Services

Our Supervision services are designed to ensure construction projects are executed efficiently and in full compliance with contract terms, high-quality standards, and safety regulations. Our experienced engineers maintain a consistent on-site presence, closely monitoring key aspects of the project, including quality, compliance with the contract, safety of work, timeline adherence, and budget. Using advanced project management software, we track each stage of the project, ensuring that work is completed on schedule and within the approved budget. We also ensure all safety protocols are strictly followed, and the quality of the work meets the highest standards. When design discrepancies or documentation issues arise, we swiftly facilitate necessary adjustments to align with the contract and technical requirements, ensuring timely and successful project delivery while minimizing risks for all stakeholders.

Area of **Expertise**

B. Planning and Design Consultancy

B.1. City Master Planning

City master planning is our area of expertise. We possess a comprehensive record of experiences in the development and revision of city master plans at scales of 1:10000 and 1:5000, alongside the preparation of Detailed Plans and Application Plans at scales of 1:2000 and 1:1000 within the standard geodatabase frameworks. We possess a thorough understanding of the zoning system and land use regulation in the countries where we operate. We have also created a variety of tools and templates to facilitate the preparation process of master planning, encompassing everything from data collection and field inspections to stakeholder engagement, situation analysis, and the formulation of proposed land use zoning. Our expertise lies in the integration of advanced methodologies within urban master plans, emphasizing resilience, climate adaptability, and risk sensitivity. We also utilize contemporary frameworks, such as the "my city plan" tool introduced by the UN last year.

B.2. Municipal Strategic Planning

We specialize in delivering comprehensive consultancy services for municipalities, with a strong emphasis on strategic planning, organizational development, and financial management. Our expertise includes crafting institutional plans and organizational charts, conducting impact assessment of the activities, conducting in-depth performance evaluations, and developing action plans that align with municipal objectives. We excel in designing participatory strategic plans that incorporate robust stakeholder engagement, the establishment of key performance indicators, and detailed cost estimation frameworks to ensure sustainable implementation. Additionally, we provide financial advisory services, including creditworthiness assessments, fiscal performance analysis, and economic forecasting to support sound decision-making for municipal financing and investments. With a results-oriented approach, we assist municipalities in enhancing governance, operational efficiency, and financial resilience.

B.3. Urban Transformation and Regeneration Planning

The urban transformation areas, often referred to as urban decayed or old fabric areas in various countries, represent significant vulnerabilities within cities, imposing social, environmental, and economic pressures. However, these regions also conceal a multitude of opportunities. The regeneration and renovation of such urban spaces can lead to enhanced economic prosperity, social viability, and environmental sustainability. Our expertise lies in the comprehensive preparation of plans and the provision of consultancy services within the realm of urban transformation. This encompasses everything from conceptual development and stakeholder negotiations to detailed planning, 3D rendering, financial and legal analyses, design of implementation modalities—including various partnership types between municipalities and property owners—and the monitoring of the implementation process.

B.4. Pre- and Post-Disaster Planning

Disaster risk management is recognized as a primary focus of our endeavors in recent years. In the realm of pre-disaster planning, we have developed numerous strategies known as “Risk-Sensitive Land Use Plans” and “Resilience Master Plans.” These initiatives are designed to fortify city master plans, as well as the institutions and stakeholders involved, enabling them to effectively manage disasters and improve their adaptive capacities in the event of such occurrences. In the aftermath of a disaster, we offer services such as the "Post Disaster Needs Assessment," often referred to as PDNA. We have provided our assistance to the Turkish government and ILBANK in conducting a post-disaster needs assessment across the 13 provinces following the earthquake that transpired on February 6, 2023. Our expertise extends to the recovery processes of communities, encompassing building assessments, infrastructure evaluations, the prioritization of necessary investments, negotiations with international financial institutions and relief organizations, as well as the facilitation of social recovery initiatives. Drawing upon our extensive knowledge and experiences in undertaking such intricate tasks, we have successfully implemented numerous initiatives in this domain.

B.5. Sustainable Urban Mobility and Transportation Master Planning

We provide extensive services in the formulation of Transportation Master Plans (TMP), Sustainable Urban Mobility Plans (SUMP), Intelligent Transportation Systems (ITS), and Transit-Oriented Development (TOD), by merging advanced smart city technologies with principles of sustainability. Our solutions are designed to optimize resource management, minimize environmental impact, and elevate the quality of life for residents. Our proficiency in transportation four-step modeling, data collection, feasibility studies, and the integration of intelligent systems into public transportation is enhanced by our innovative applications and software. This expertise allows us to offer a comprehensive range of both traditional and advanced transportation planning services.

Area of **Expertise**

C. Engineering Consultancy

C.1. Microzonation and Multi-Hazard Risk Assessment

Our expertise in Microzonation Studies is closely integrated with our comprehensive Hazard, Vulnerability, and Risk Assessment services. We utilize state-of-the-art methods, tools, and practices to conduct detailed microzonation studies, which involve a granular analysis of local geological, seismic, and environmental conditions to better understand area-specific risks. Through field studies, advanced geotechnical testing (such as CPT, SPT, and SCPT), and the evaluation of natural hazards like earthquakes, landslides, avalanches, and flooding, we develop precise microzonation maps that support resilient urban and infrastructure planning. These studies help identify high-risk areas, allowing for more informed land use planning and strategic decision-making. Additionally, we incorporate multi-hazard assessments and climate risk evaluations to ensure sustainable development that addresses both current and future challenges. Our microzonation expertise helps mitigate the impacts of natural disasters, creating safer and more resilient communities..

C.2. Structural Design and Green Rehabilitation

Our expertise in Structural Design and Rehabilitation spans a wide range of engineering services aimed at ensuring the safety, stability, and longevity of structures. We follow a comprehensive, step-by-step approach to structural assessment, beginning with Rapid Visual Assessment (RVA), progressing to Preliminary Engineering Assessment (PEA), and advancing to Detailed Engineering Assessment (DEA) for in-depth analysis. Our team specializes in designing new structures, reinforcing existing ones, and rehabilitating aging or damaged infrastructure. In recent years, we have incorporated sustainable practices into our work, including “green reinforcement” techniques that emphasize energy efficiency and environmental performance. This approach ensures that our structural solutions not only meet current safety and regulatory standards but also contribute to a more sustainable and resilient built environment.

C.3. Renewable Energy and Climate Resilient Infrastructure

Our expertise in Renewable Energy aligns with the global push for sustainable energy and water solutions in response to the rising demand for energy and water amidst growing populations and industries. In line with the Paris Agreement, we are actively engaged in promoting clean energy and alternatives that reduce greenhouse gas emissions and reliance on fossil fuels. As part of our comprehensive climate change adaptation and mitigation services, we focus on advancing renewable energy solutions through collaboration with international firms and providing water and sewage water services to create a water-sensitive environment. In Türkiye, where the energy sector has traditionally depended on imported fossil fuels, our efforts include developing and implementing projects that harness solar, wind, and other renewable resources, providing energy-efficient designs for buildings, and contributing to low-carbon development initiatives. We also emphasize nature-based solutions, capacity building, and energy-water efficient practices in building construction and operation, helping reduce the environmental impact of energy consumption across various sectors. In addition, developing guides and handbooks to facilitate the implementation of these sustainable solutions is also part of our expertise.


Outstanding
Projects

Outstanding **Projects**

No.	Project Title	Location	Year	1	2	3	4	5	6	7	8	9	10	11	12
1	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR TRABZON METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
2	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR MERSIN METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
3	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR ANTALYA METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
4	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR AYDIN METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
5	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR BURSA METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
6	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR BURDUR MUNICIPALITY	Turkey	2025	●	●										●
7	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR MUĞLA METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●

Legend

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8	CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 22 ELECTRIC BUSES AND 3 CHARGING STATIONS FOR ADANA METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
9	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR HATAY METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
10	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR ADANA METROPOLITAN MUNICIPALITY	Turkey	2025	●	●										●
11	CONSULTANCY SERVICE PROCUREMENT FOR NEEDS ASSESSMENT STUDY OF “STRENGTHENING MUNICIPAL RESILIENCE AGAINST NATURAL DISASTERS PROJECT”FINANCED BY THE COUNCIL OF EUROPE DEVELOPMENT BANK (CEB)	Turkey	2024	●	●										●
12	POST DISASTER NEEDS ASSESSMENT IN TURKIYE	Turkey	2024	●							●				
13	CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 6 ELECTRIC BUSES AND 2 CHARGING STATIONS FOR KASTAMONU MUNICIPALITY	Turkey	2024	●	●										●
14	CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 14 ELECTRIC BUSES AND 3 CHARGING STATIONS FOR SAMSUN METROPOLITAN MUNICIPALITY	Turkey	2024	●	●										●

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15	PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR ORDU METROPOLITAN MUNICIPALITY	Turkey	2024	●	●										●
16	PREPARATION OF NEEDS ANALYSIS, FEASIBILITY REPORT AND FINANCIAL ASSESSMENT REPORT FOR FIREFIGHTING PROJECTS FOR BALIKESIR METROPOLITAN MUNICIPALITY	Turkey	2024	●	●										●
17	LONG TERM AGREEMENT WITH UNOPS	Multi-Country (Europe and Central Asia)	2024	●	●	●	●			●	●	●	●	●	●
18	DEVELOPMENT OF AN INSTITUTIONAL PLAN AND ORGANIZATIONAL CHART FOR GAZIANTEP METROPOLITAN MUNICIPALITY IN TÜRKIYE	Turkey	2024						●						
19	DEVELOPMENT OF A STRATEGIC PLAN 2025-2029 FOR GAZIANTEP METROPOLITAN MUNICIPALITY IN TURKIYE	Turkey	2024						●						
20	CONSULTANCY SERVICE FOR PREPARATION OF PROJECT INFORMATION DOCUMENT (PID) AND FEASIBILITY REPORT FOR OSMANIYE AND MALATYA INFRASTRUCTURE PROJECTS	Turkey	2024	●	●										
21	LOCAL LONG-TERM AGREEMENTS FOR ENGINEERING SERVICES IN NORTH-WEST SYRIA	Turkey-Syria	2023	●	●	●	●				●			●	●
22	SUPPORTING MIGRANT HEALTH SERVICES IN TURKEY	Turkey	2023			●									

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23	OSMANIYE MUNICIPALITY POST-DISASTER PLANNING WORKS IN TURKIYE	Turkey	2023					●		●	●		●		
24	RESILIENT REGENERATION OF HILLSIDE ORGANIC SETTLEMENTS IN KABUL (PHASE 2)	Afghanistan	2023			●				●					●
25	CONSULTANCY FOR THE MICROZONATION OF STUDIES — SALAMIYAH CITY, SYRIA	Syria	2023			●				●			●		
26	IMPACT ASSESSMENT REPORT FOR THE ORDU METROPOLITAN MUNICIPALITY'S ACTIVITIES BETWEEN 2019-2023	Turkey	2023	●					●						
27	USAID-BHA RAPID AND SUSTAINABLE SHELTER SOLUTIONS	Turkey	2023	●		●					●			●	
28	CATHOLIC RELIEF SERVICES (CRS)- RAPID AND SUSTAINABLE EMERGENCY SHELTER SOLUTIONS	Turkey	2023	●		●					●			●	
29	TURKEY EARTHQUAKE SHELTER RECOVERY PROGRAM FUNDED BY NADACIA HABITAT FOR HUMANITY INTERNATIONAL (NADACIA HFHI)	Turkey	2023	●		●					●			●	
30	RETROFITTING OF OSMANIYE MUNICIPALITY BUILDING	Turkey	2023	●			●							●	
31	TRANSPORTATION MASTER PLAN OF OSMANIYE	Turkey	2022					●				●			

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32	INFRASTRUCTURE PROJECT PORTFOLIO MANAGEMENT OF OSMANIYE	Turkey	2022	●	●	●	●		●						●
33	CONSULTANCY SERVICE FOR CONDUCTING AN URBAN RESILIENCE AND MUNICIPALITY'S LAND & PROPERTY VALUE ANALYSIS OF OSMANIYE PROVINCE IN TURKIYE	Turkey	2022							●	●				●
34	RESILIENT REGENERATION OF HILL SIDE ORGANIC SETTLEMENT OF DISTRICT 3 IN KABUL (PHASE I)	Afghanistan	2022			●				●			●		●
35	SPECIAL TECHNICAL SPECIFICATION FOR THE PROCUREMENT OF CREDIT ASSESSMENT REPORTS FOR THE PROVISION OF LOANS PROVIDED BY ESKISEHIR AND SANLIURFA METROPOLITAN MUNICIPALITIES	Turkey	2022		●										
36	DETAILED DESIGN PREPARATION FOR RECONSTRUCTION/ REHABILITATION FOR PUBLIC SCHOOLS LOCATED IN IMERETI	Georgia	2021				●							●	
37	TECHNICAL REVIEW OF DEVELOPMENT POTENTIAL FOR TWO URBAN TRANSFORMATION AREAS IN SELECTED METROPOLITAN MUNICIPALITIES (KAHRAMANMARAS AND TEKIRDAG)	Turkey	2021		●					●	●				●
38	ANALYTICS IN SUPPORT OF A STRATEGY FOR SEISMIC RISK REDUCTION OF PUBLIC BUILDINGS	Myanmar	2021											●	

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39	CLIMATE-SMART HABITAT PLANNING FOR NEW KABUL CITY	Afghanistan	2021					●		●					●
40	RISK SENSITIVE AND CLIMATE RESILIENT LAND USE PLANNING FOR FAIZABAD CITY	Afghanistan	2021					●		●	●				●
41	URBANIZATION AND CLIMATE CHANGE ADAPTATION IN CASPIAN SEA REGION	Iran	2021												●
42	DEVELOPMENT OF CLIMATE ADAPTATION AND MITIGATION IMPLEMENTATION PROGRAMS FOR AKAH	Afghanistan	2020												●
43	SEISMIC HAZARD AND BUILDING VULNERABILITY & RISK ASSESSMENT AND RISK SENSITIVE LAND USE PLANNING OF PUL-E-KHUMRI CITY, AFGHANISTAN	Afghanistan	2020			●		●		●	●		●	●	
44	SPECIAL SERVICES AGREEMENT FOR DEVELOPMENT OF CONSTRUCTION LEVEL DRAWINGS OF DASHT-E-DEHKHAW HOUSING PROJECT	Afghanistan	2020											●	
45	BUILDING VULNERABILITY AND RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN	Afghanistan	2019			●				●			●	●	
46	INTEGRATED HABITAT ASSESSMENT AND PLANNING FOR RURAL HOUSING DESIGN FOR DASHT-E-DEHKHAW VILLAGE IN DARWAZ, AFGHANISTAN	Afghanistan	2019											●	

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47	DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), S05	Bangladesh	2018			●				●		●			●
48	VULNERABILITY ASSESSMENT & PRIORITIZED INVESTMENT PLAN FOR CRITICAL ASSETS S04	Bangladesh	2018			●								●	
49	VULNERABILITY ASSESSMENT & RETROFITTING DESIGN OF EDUCATIONAL FACILITIES IN KHOROQ, TAJIKISTAN	Tajikistan	2016				●							●	
50	STRUCTURAL ASSESSMENT & RETROFITTING DESIGN OF 6 AKDN/AKHS FACILITIES, AFGHANISTAN	Afghanistan	2016											●	
51	STRUCTURAL VULNERABILITY ASSESSMENT & DESIGN OF 256 PUBLIC STRUCTURES	Pakistan, Afghanistan,Tajikistan	2016											●	
52	SEISMIC VULNERABILITY AND RISK ASSESSMENT, PRIORITIZATION, AND DEVELOPMENT OF LONG-TERM INVESTMENT PLAN OF 6000 DRMI STRUCTURES IN 5 COUNTRIES	Pakistan, Afghanistan,Tajikistan, Kyrgyzstan,India	2015											●	
53	STRUCTURAL VULNERABILITY ASSESSMENT & DESIGN OF FAIZABAD HOSPITAL, BADAKHSHAN, AFGHANISTAN	Afghanistan	2015											●	
54	DESIGN OF INTERNATIONAL HEALTH CITY, ISTANBUL, TURKEY	Turkey	2012											●	

Legend

- **1** Project Management Services
- **2** Project Financing Services
- **3** Event Management and Capacity Building Program
- **4** Supervision Services
- **5** City Master Planning
- **6** Municipal Strategic Planning
- **7** Urban Transformation and Regeneration Planning
- **8** Pre- and Post-Disaster Planning
- **9** Sustainable Urban Mobility and Transportation Master Planning
- **10** Microzonation and Multi-Hazard Risk Assessment
- **11** Structural Design and Green Rehabilitation
- **12** Renewable Energy and Climate Resilient Infrastructure

LOCAL LONG-TERM AGREEMENTS FOR ENGINEERING SERVICES IN NORTH-WEST SYRIA

Name of Legal Entity Completing the Work: Protek-Yapi Engineering Co.

Countries: Turkey-Syria

Date of start and completion: November 2023 - Ongoing

PROJECT CLIENT: UNITED NATIONS CHILDREN'S FUND (UNICEF)

Project Description:

The UNICEF MENA Regional Office established Long-term Arrangements (LTAs) services in North West Syria and the Gaziantep area in Turkey to perform the function of complete quality management in carrying out independent technical monitoring, control, and quality assurance tasks in a variety of construction/rehabilitation activities required engineering services, such as site assessment, designs, and construction documents, site supervision during project execution, etc.; These projects include but is not limited to WASH facilities such as latrines and hand-washing facilities, rehabilitation of existing schools, the construction, rehabilitation of water networks, sewerage networks and construction of water tanks.
The scope of services is divided into 2 lots:

- Lot 1: main engineering services which are typically used in most UNICEF constructio activities, and,
- Lot 2: supplementary technical services referring to specialized engineering services that shall be required only for specific construction activities.

Below are the main engineering services to be provided:

- Need assessment
  - Assessment of existing buildings and assessment of needs for new construction
- Evaluation of design and technical documents
- Project budget
- Assessment of BoQs
- Technical support to procurement

SYRIA & TURKEY

- Quality assurance and site supervision
  - The supplementary technical services listed below will be covered for construction projects with a high degree of technical requirements, such as cold-room storage, desalination plants, large water treatment facilities, warehouses with large spans, etc.
- Project management

Evaluation of suppliers/vendors involved in construction and construction-related activities.

LONG TERM AGREEMENT WITH UNOPS

MULTI-COUNTRY (EUROPE AND CENTRAL ASIA)

Name of Legal Entity Completing the Work :

The United Nations Office for Project Services (UNOPS)

Country: Multi-Country (Europe and Central Asia)

Date of start and completion: Sep. 2024 - Sep. 2027

Project Client: The United Nations Office for Project Services (UNOPS)

Project Description:

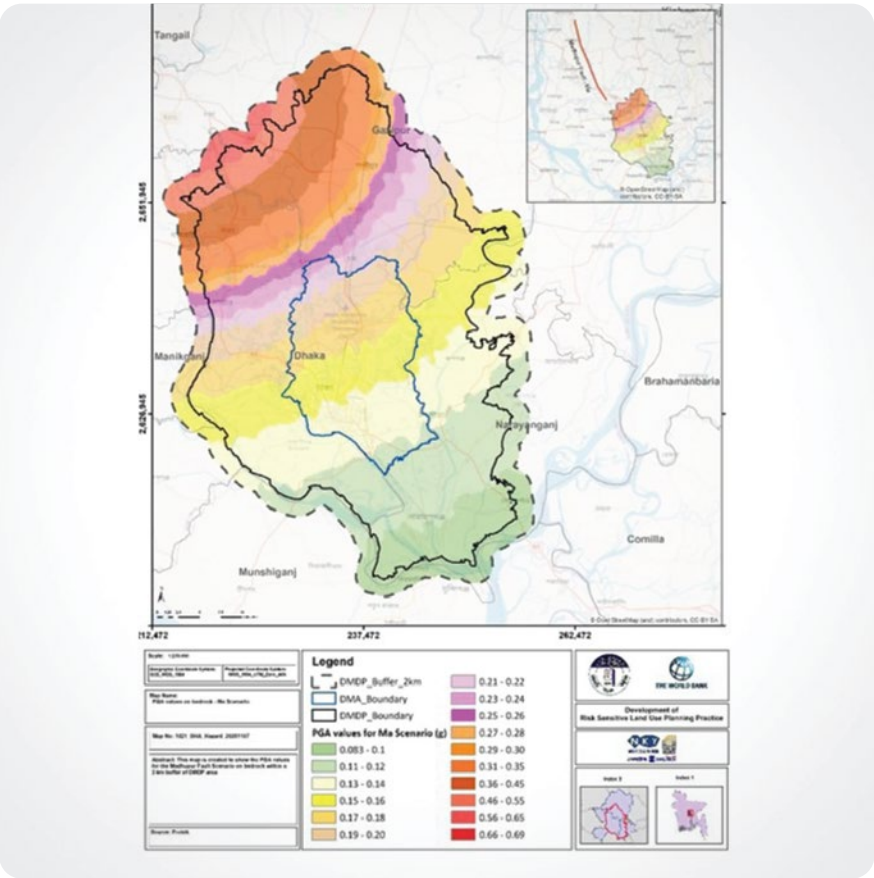
The scope of services for the LTAs are as follows:
Types of Services:

1. Strategic Infrastructure Planning
2. Feasibility Studies and Assessments (Condition & Functionality)
3. Design Services
4. Design Review Services
5. Construction Supervision
6. Technical Advisory Services (Asset Management, Climate Change, Energy Efficiency, Sustainability, Resilience, Gender, SDGs)
7. Capacity enhancement and training on technical topics related to infrastructure

Technical Disciplines/ Infrastructure Sectors:

1. Buildings
2. Transport Infrastructure
3. Utilities Infrastructure
4. Specialist Areas
5. Strategic Areas

DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), S05



DHAKA, **BANGLADESH**

Project Consultancy Contract Value: 7,310,966 USD

Name of Legal Entity Completing the Work:

The Joint Venture of Protek-Yapi Engineering Co.,

NKY Architectural and Engineering Co., and Sheltech (Pvt.) Limited

Sub Consultant: VESTA ECC

Country: Bangladesh

Date of start and completion: Dec 2018 — May 2022

Project Clients: World Bank, Rajdhani Unnayan Katripakkha (RAJUK), Bangladesh Ministry of Housing and Public Works

Project Description:

This project had been defined to fulfill the following tasks:

Stage 1: Project Organization, Data Collection, and Situation Analysis
Stage 2: Development of the internal guidelines and processes for RSLUP to upgrade / reform the current planning system
Stage 3: Training and Capacity Building for risk-sensitive planning
The Project can be summarized into these two main objectives:

1. To review, enrich and strengthen the current planning regulation, process, and methods of RAJUK, to ensure that DAPs (detailed area plans) are risk-sensitive.
2. To improve ownership for consultation, learning, and consensus building within RAJUK and other agencies involved in the land-use planning process of Dhaka.

This Project covered the whole Greater Dhaka (covering around 5,000,000 Square meters).

Provided Services:

Policy and Institutional Development

An essential component of the studies in this project were related to:

1. Creation of operational procedures of infrastructure resiliency development plans funded under the World Bank for DMDP including executed infrastructure investments in last 20 years coupled with designing Urban Resiliency Unit to support cities in preparing and implementation of these projects;
2. Development of data-driven strategic plans and enhancing the options to access infrastructure financing with a long-term investment plan objective;
3. Providing policy advice to central ministries as well as technical support for RAJUK and local governments to catalyze the delivery of infrastructure in the sectors of transformative urban mobility and disaster risk reduction;
4. Development of an awareness campaign and dissemination of key messages on specific urban development gaps and capacity building to inform national policy makers.

DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), S05

Developing Resiliency Tool (RT)

In this project a valuable and practical tool was developed to evaluate the amount of resiliency and sustainability across DMDP area which is composed of 10 different but inter-related components including:

1. Effective Leadership, Management, & Planning,
2. Strengthen Financial Capacity,
3. Understanding Disaster Risk,
4. Resilient Development,
5. Infrastructure Resilience,
6. Skills and Experience,
7. Community Organization,
8. Natural Environment & Ecosystem,
9. Effective Disaster Response,
10. Recovery and Build Back Better

Flood Hazard and Risk Studies

The steps of preparing a flood risk map for DMDP are as follows:
Literature review, Data collection and assessment, Data check & Review and data gap analysis, Assessment and process the collected data to determine the appropriate hydraulic model, Preparation data for hydrodynamics model including topographic (DEM, rivers' plan, cross sections, alignment, bed resistant, etc., land-use and land-cover) information of the computational domain and hydrological information (This information will be used by the model to simulate flood scenarios), Model preparation, implementation, calibration, and validation, Scenario developments, Model simulation and results interpretation, Flood Vulnerability assessment (Damage of different flood scenarios in the study area), Development of Risk maps (Using flood vulnerability results).

Microzonation Studies

The JV delivered the services for Microzonation and Multi-Hazard Assessment for World Bank as part of Development of Risk Sensitive Land Use Planning practice (RSLUP), DHAKA — Bangladesh

Training Courses

As part of the contract, Protek-Yapi delivered their educational services regarding risk sensitive Planning.

Climate change Mitigation and Adaptation Practice in DMDP

Under Stage 1 of the project, and in response to climate and metrological hazards, Protek-Yapi has addressed the effects of climate change including the change of land cover and contribution to irregular floods and storms in Bangladesh by focusing on both mitigation and adaptation activities. Adaptation to climate change involves adjustment to natural or human systems in response to actual or expected climatic stimuli or their effects, to moderate harm or exploit beneficial opportunities. To complement the mitigation efforts, we have also employed adaptive measures to ensure that the negative impacts of climate change is reduced, taking Dhaka one step closer to sustainability.

DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), S05

The following figure illustrates the Long — term vision of the proposed implementation plan.

Initial Setup

Phase 1
0 - 1.5 Years

- Begin awareness raising based on identified disasters
- Negotiate with stakeholders to identify need and gather investment
- Drafting laws and regulations (for codifying or amendment)
- Prepare an initial draft of the legal duties and prerequisites for implementing the proposed institutional framework
- Prompt action on high-risk areas (e.g., relocation, construction of security structures, etc.)
- Needs assessment and feasibility study of providing comprehensive integrated RSLUP software
- Begin Capacity Building courses
- Needs assessment and recruit of required manpower
- Preparation of detailed financial plan for different parts of the project (for approval by the competent authorities)
- Approve new building codes based on URP proposals

Capacity Building

Phase 2
1.5 - 5 Years

- Continuation of awareness raising program (Collaboration with schools, universities, NGOs and more)
- Approval and implementation of the proposed institutional framework (4 pillars and the proposed mechanism)
- Increasing the attraction of domestic and foreign investment
- Preparation of priority projects (low-income housing, slums, etc.)
- Reform of land management system
- Preparation of a comprehensive land database
- Finalize the comprehensive integrated RSLUP software
- Approval and implementation of DAP amendments (based on RSLUP recommendations)
- Strengthen training programs for vulnerable groups
- Priority measures and projects for high-risk areas
- Strengthen software and hardware infrastructure

Continuous Effort

Phase 3
5 - 7 Years

- Use RSLUP achievements elsewhere in Bangladesh (National and Local Scales)
- Implementation of programs and proposals using different financial resources (5 mentioned financial sources)
- The first feedback on the effectiveness of RSLUP and correction suggestions
- The first feedback on the effectiveness of the comprehensive RSLUP software and correction suggestions
- Exploit programs for the urban poor
- The first environmental assessment of the implementation of RSLUP
- Assessing the impact of RSLUP implementation on agricultural lands (risk reduction, protection, revenue generation, etc.)
- Review priorities
- Complete the rehabilitation of public buildings
- Complete the necessary infrastructure for DRR

Maturity of the Plan

Phase 4
7 - 10 Years

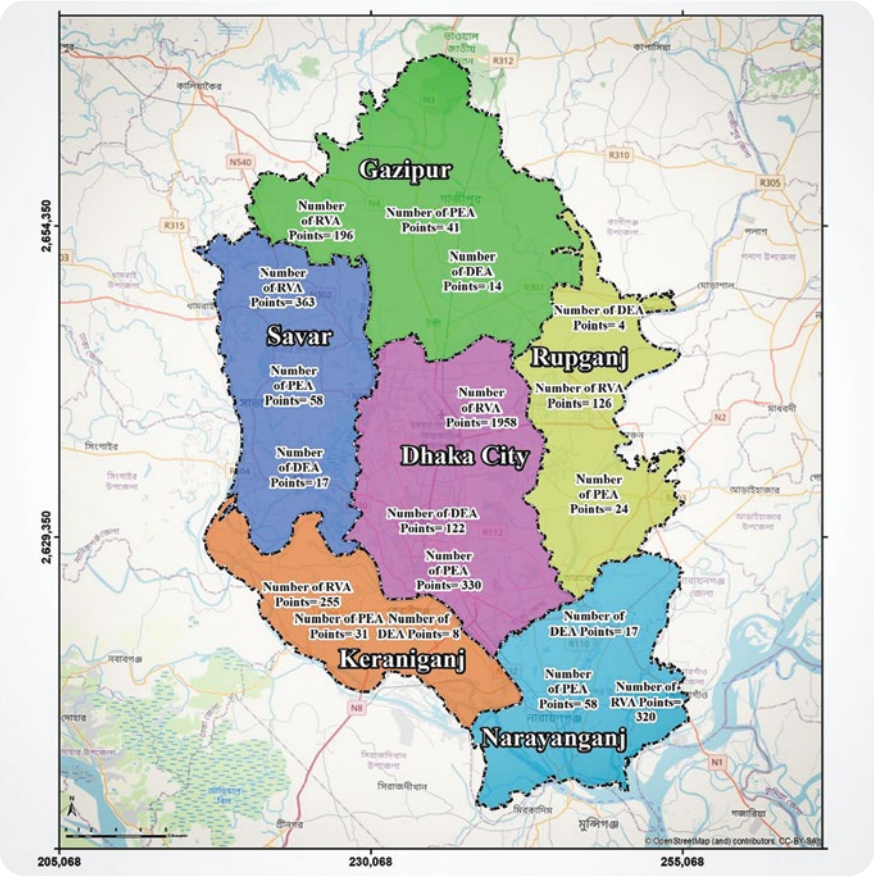
- Eliminate government funding for projects and increase local government funding
- Exploiting the economic benefits of projects
- Complete software and hardware deficiencies to stabilize the proposed institutional arrangement
- Program consolidation stage
- Continue human resource development and recruit new employees (based on previous phase evaluations)
- Full readiness of institutions and people in DMR components (mitigation, Preparedness, response and recovery)
- Complete risk mitigation and reduction projects
- Synchronize development with market forces and demands
- Minimize all types of vulnerabilities
- Complete retrofitting of existing buildings

Leadership & Innovation

Phase 5
10 Years +

- Eliminate international funding and rely on municipal revenues and private investment
- Strengthen software and hardware infrastructure
- Creating grounds for creativity and innovation
- Use the experience of previous years to improve conditions and programs
- Maximum attendance and participatory planning
- Full realization of management legitimacy in DMR
- Accelerate development in DMR
- Continuation of poverty reduction programs in Dhaka
- Begin final evaluation of the project and preparation of requirements for future plans
- Evaluation of human resource performance, performance of institution in times of crisis, effectiveness od RSLUP proposals in recent years, etc.

VULNERABILITY ASSESSMENT & PRIORITIZED INVESTMENT PLAN FOR CRITICAL ASSETS S04



DHAKA, **BANGLADESH**

Project Consultancy Contract Value: 8,638,209 USD

Name of Legal Entity Completing the Work:

The Joint Venture of Protek-Yapi Engineering Co.,

NKY Architectural and Engineering Co., and Sheltech (Pvt.) Limited

Sub Consultant: VESTA ECC

Country: Bangladesh

Date of start and completion: Dec 2018 — July 2022

Project Clients: World Bank, Rajdhani Unnayan Katripakkha (RAJUK), Bangladesh Ministry of Housing and Public Works

Project Description:

In recent years, Bangladesh has reformed its approach to natural disastrous events like cyclones and floods. The threat of an earthquake, however, is less visible but significant given that Bangladesh lies on the seismically active zone of the Indian plate.
The main objective of the Project was to assess the vulnerability and risk of Dhaka's critical facilities and develop a prioritized investment plan through an analytical approach.
Consequently, the main outputs of the Project were as follows:

a) A Long-Term Vulnerability Reduction Investment Plan, and
b) The Dhaka Urban Resilience Strategy.

The Project was organized in 3 stages and included the following assignments:

- Data Collection
- Rapid Visual Assessment (RVA) of roughly 5 million square meters of critical public assets
- Preliminary Engineering Analysis (PEA) on the prioritized buildings in the previous step
- Detailed Engineering Analysis (DEA) on the prioritized buildings in the previous step
- Preparation of the Long-Term Vulnerability Reduction Investment Plan and the Dhaka Urban Resilience Strategy
- Performing Capacity Building

VULNERABILITY ASSESSMENT & PRIORITIZED INVESTMENT PLAN FOR CRITICAL ASSETS S04

Provided Services:

The main tasks of the project are as follows:

Task 1. Conducting Rapid Visual Screening/Assessment of 3252 public facilities including schools, hospitals, universities, fire stations, and police stations; encompassing 5,382,000 square meters; and submitting complete reports on the findings of all the buildings/facilities that have been assessed with prioritization ranking of each building in terms of vulnerability and risk.

The main activities and deliverables were as follows:

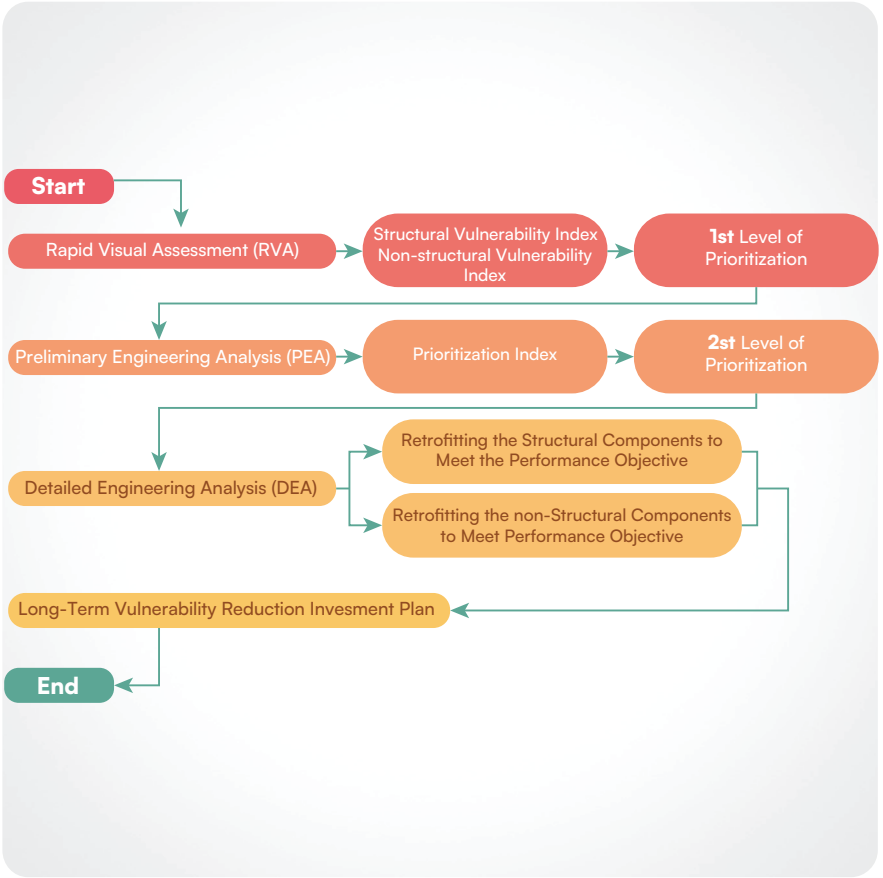
- Data collection from engineering and architectural perspective
- Risk assessment of structural and non-structural components
- Risk identification and vulnerability scoring of all the structures
- Prioritizing the most critical facilities among them up to a level of 20%
- Comprehensive report on the outcomes of the Rapid Visual Assessment (RVA)

Task 2. Preliminary Engineering Assessment using internationally recognized methodologies tailored to the project case for the most critical facilities identified during the rapid visual assessment with approximately 1 million square meters built-up area (Approximately 600 schools and hospital buildings).

The main activities and deliverables were as follows:

- Destructive and non-destructive testing to verify the material characteristics and strength.
- Preliminary cost estimate for the feasibility of the structures to go for retrofitting
- Prioritizing the most critical facilities among them up to a level of 40%
- Retrofitting and rehabilitation designs including Energy Efficiency designs
- The synthesis reports
- Architectural and structural surveying of the structures
- Individual final reports for each structure analyzed
- Retrofitting schemes to overcome the associated vulnerabilities

VULNERABILITY ASSESSMENT & PRIORITIZED INVESTMENT PLAN FOR CRITICAL ASSETS S04



Task 3. Detailed engineering assessment using internationally recognized methodologies tailored to the project case for the most critical facilities - 200 facilities with more than 400,000 square meters of built-up area.

The main deliverables were as follows:

- Material test report covering soil investigations, geotechnical and geophysical studies, surveying, concrete core sampling and exposure of the steel, ferro-scan readings along with all the architectural, structural, mechanical, and electrical findings and information gathered through foundation pit openings.
- Assessment findings and methodologies
- Approval documents from the principals and directorates
- Preliminary structural and non-structural analysis, calculations, and designs for different retrofitting alternatives and recommendations including structural, architectural, mechanical, and electrical findings.
- Cost and cost comparison estimates
- Final design report and drawings including detailed structural retrofitting design, detailed non-structural retrofitting designs, and detailed architectural, mechanical, and electrical designs
- Final costs and cost comparisons for alternatives
- Tender documents and bill of quantities.

TECHNICAL REVIEW OF DEVELOPMENT POTENTIAL FOR TWO URBAN TRANSFORMATION AREAS IN SELECTED METROPOLITAN MUNICIPALITIES (KAHRAMANMARAŞ AND TEKIRDAĞ)

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Oct. 2021-Dec. 2022

Project Client: World Bank

Project Description:

Over the last decade, a number of legal and executive measures have been adopted in Türkiye to increase the resilience of the country's cities against natural disasters and climate change. In this context, the Law on the Transformation of Areas under Natural Disaster Risk (Law No. 6306) offers opportunity for a systematic strategy to integrate resilience into urban planning and management, and to improve the resilience of vital infrastructure and buildings, including housing. Despite these initiatives, Türkiye continues to face financial obstacles. In response to the government's request for IBRD financing to support the implementation of the government's Urban Transformation Action Plan, the World Bank is currently providing technical support and guidance on urban resilience and has been working closely with MoEUCC (Ministry of Environment, Urbanization and Climate Change) to develop and advance its Urban Transformation Program. In order to support the preparation of the Urban Resilience Project in Türkiye, the Urban, DRM, and Land team has mobilized resources from the City Resilience Program (CRP) to aid the government's efforts to implement an enhanced UT program.

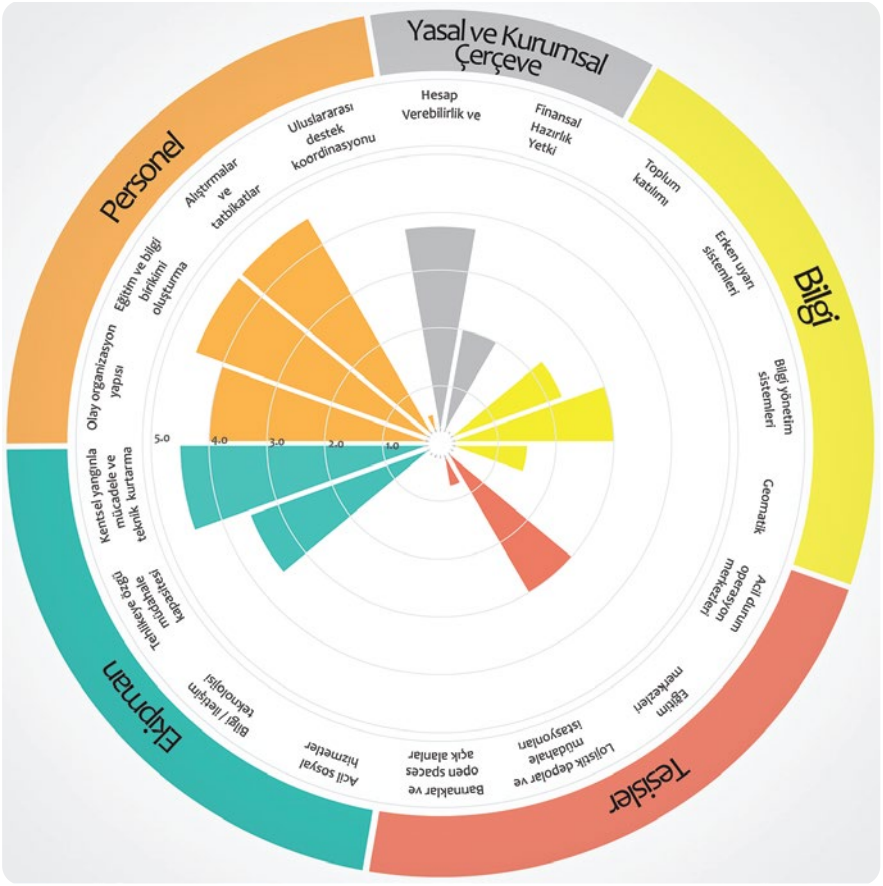
The main component of this project were as followings:

1- Review of Development Potential in Urban Transformation Areas of Tekirdağ and Kahramanmaraş.
2- Estimation of Cost of Required Climate and Disaster Resilient Infrastructure
3- Review of Potential Implementation Strategies for Development Scenarios

Therefore, the main objectives of the study include:

1- Modelling potential investments within the selected UT areas that private and public sector could be interested in and that could reduce identified/priority climate and disaster risks (with an emphasis on vulnerable communities);
2- Assessing the potential for attracting private investment in the UT areas;
3- Running pro-forma financial analysis of potential development scenarios and PPP arrangements

CONSULTANCY SERVICE PROCUREMENT FOR NEEDS ASSESSMENT STUDY OF “STRENGTHENING MUNICIPAL RESILIENCE AGAINST NATURAL DISASTERS PROJECT” FINANCED BY THE COUNCIL OF EUROPE DEVELOPMENT BANK (CEB)



Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Aug 2024 - Dec. 2024

Project Client: ILBANK

Project Description:

The objective of the project is to provide support to local authorities' firefighting services to ensure that they have adequate response capabilities for fires and accidents, floods, storms, forest fires and earthquakes. The project will provide resources for municipalities to invest in strengthening municipal capacity to respond to the growing demand for their services in peri-urban areas by increasing risk awareness and preparedness for populations exposed to the risk of wildfires and other natural disasters and improving response capacities.
Components of the Project:

- Component A. Assessment of municipal capacity to prepare for and respond to forest fires and other natural disasters
- Component B. Improving the physical capacity of municipalities
- Component C. Strengthening critical infrastructure of municipalities
- Component D. Technical Assistance and community awareness raising

In order to achieve the project outcomes following activities have been done:
Activity 1:
R2R Diagnostic Methodology:
Legal and Institutional Framework (Legal accountability and Financial Readiness)
Information Acquisition and Information Technologies, (Community participation, Early warning systems, Information management systems, Geographic Information Systems)

CONSULTANCY SERVICE PROCUREMENT FOR NEEDS ASSESSMENT STUDY OF “STRENGTHENING MUNICIPAL RESILIENCE AGAINST NATURAL DISASTERS PROJECT” FINANCED BY THE COUNCIL OF EUROPE DEVELOPMENT BANK (CEB)

FACILITIES, (EMERGENCY OPERATION CENTERS, TRAINING CENTERS, LOGISTICS WAREHOUSES AND RESPONSE STATIONS, SHELTER AREAS AND OPEN
EQUIPMENT (EMERGENCY SOCIAL SERVICES, INFORMATION AND COMMUNICATION TECHNOLOGY, HAZARD-SPECIFIC RESPONSE EQUIPMENT, CRITICAL RESCUE AND TECHNICAL SERVICES
PERSONNEL (EMERGENCY ORGANIZATIONAL STRUCTURES, TRAINING AND KNOWLEDGE BUILDING, EXERCISES AND DRILLS, INTERNATIONAL SUPPORT CO ORDINATION)
Critical environmental infrastructure services (infrastructure affected by disasters or infrastructure needs for disaster risk rEDUCTION)

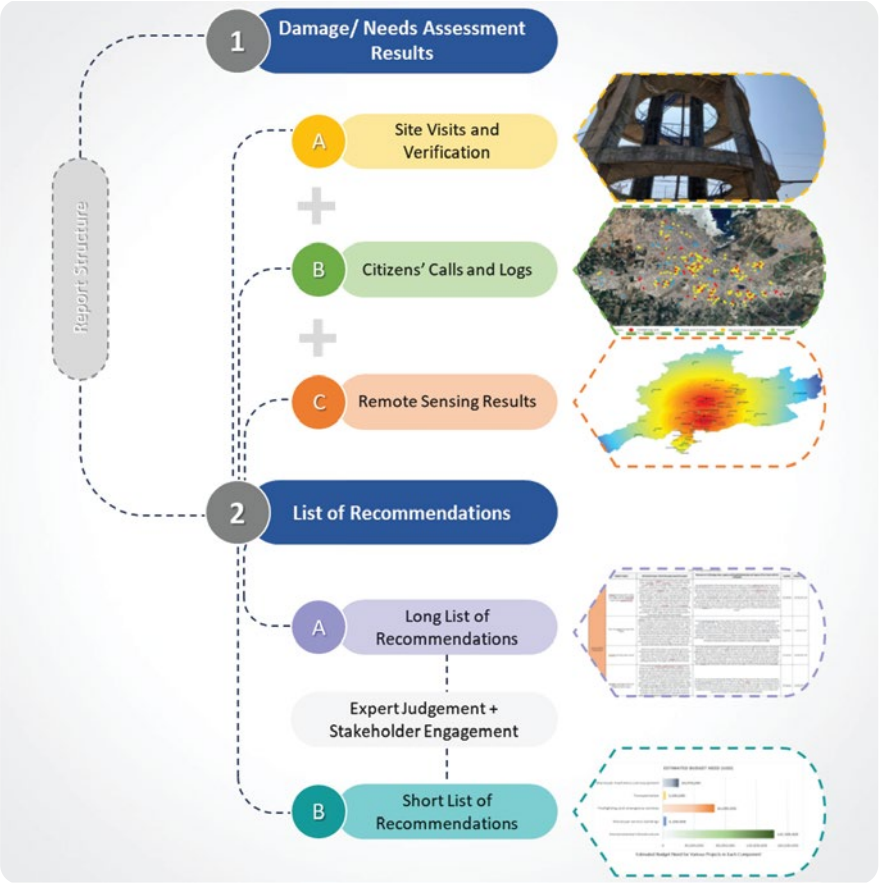
Activity 2:

Preliminary Needs Assessment Report
Detailed description of the findings and diagnoses made in accordance with the methodology
General assessment of the preparedness, early detection and response capacities of local governments against fire and natural disasters and recommendations for strengthening them
Overview/brief assessment of the population's risk awareness and level of preparedness and exposure to forest fires and other natural disasters occurring in the regions;
Overview of lessons learned from response capacity after a wildfire or similar event in 2021 and preliminary identification of areas for improvement;
Draft list of projects (equipment, infrastructure investments and risk awareness campaigns and risk preparedness trainings) to be carried out in line with the needs analysis, cost estimates and recommendations on prioritization

Activity 3:

Final Report
Confirmation and updating of the information and recommendations in the preliminary report
Evaluation of ILBANK's comments and suggestions
Elaboration and justification of the findings of the preliminary report
Project pipeline developed on the basis of the preliminary report results and detailed project descriptions, cost estimates and recommendations
Presenting recommendations for local governments based on the results of the needs analysis

POST DISASTER NEEDS ASSESSMENT IN TURKIYE



TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: April 2024 — Dec. 2024

Project Client: IIBANK

Study Area: Adıyaman, Hatay, Kahramanmaraş, Kilis, Osmaniye, Gaziantep, Malatya, Şanlıurfa, Diyarbakır, Elazığ, Adana, Mersin, and Kayseri

Project Description:

The post-disaster needs assessment project, funded by IIBank, aimed to analyze the damages and needs of eleven provinces in Turkey (including provinces: Adıyaman, Hatay, Kahramanmaraş, Kilis, Osmaniye, Gaziantep, Malatya, Şanlıurfa, Diyarbakır, Elazığ, Adana, Mersin, and Kayseri) that were affected by the earthquake on February 6, 2023.
This study aimed at identifying and analyzing the particular needs in various sectors such as environmental infrastructure, municipal service buildings, firefighting and disaster management, road and transportation networks, and machinery and equipment. Additionally, it aims to outline the pipeline initiatives related to these sectors.
This study provided a thorough analysis of the damage caused by the earthquake. This output provided a comprehensive analysis and assessment of the damage extent in these provinces. Furthermore, it highlights the crucial significance of the necessary needs for the process of recovery and restoration. The post-disaster needs assessment process consists of four main stages: damage assessment, needs assessment, prioritization, and investment programming.
During the damage/needs assessment, stakeholders were extensively engaged through meetings, focus group sessions, and interviews. The damage assessment process for pipeline projects involved active involvement and collaboration from relevant parties. We prioritized the integration of principles such as gender equality and the inclusion of marginalized populations in our efforts.
The identified projects were prioritized and investment programming was conducted for implementation. The findings allow IIBank to secure funding from international financial institutions (IFIs) and allocate resources to the impacted municipalities.

POST DISASTER NEEDS ASSESSMENT IN TURKIYE

1 **Damage Assessment**

- Gathering baseline information
- Preparing Survey Forms based on PDNA Methodology
- Compilation
- Conducting initial meetings
- Performing an Initial Situation Overview (ISO)
- Field surveying for damage assessment
- Validating the preliminary damage Assessment

2 **Needs Assessment**

- Earthquake Before/After Analysis in terms of each Municipality
- Designing interview guides and questionnaires
- Compiling an initial list of needs
- Getting Confirmation from the stakeholders
- Preliminary cost estimation

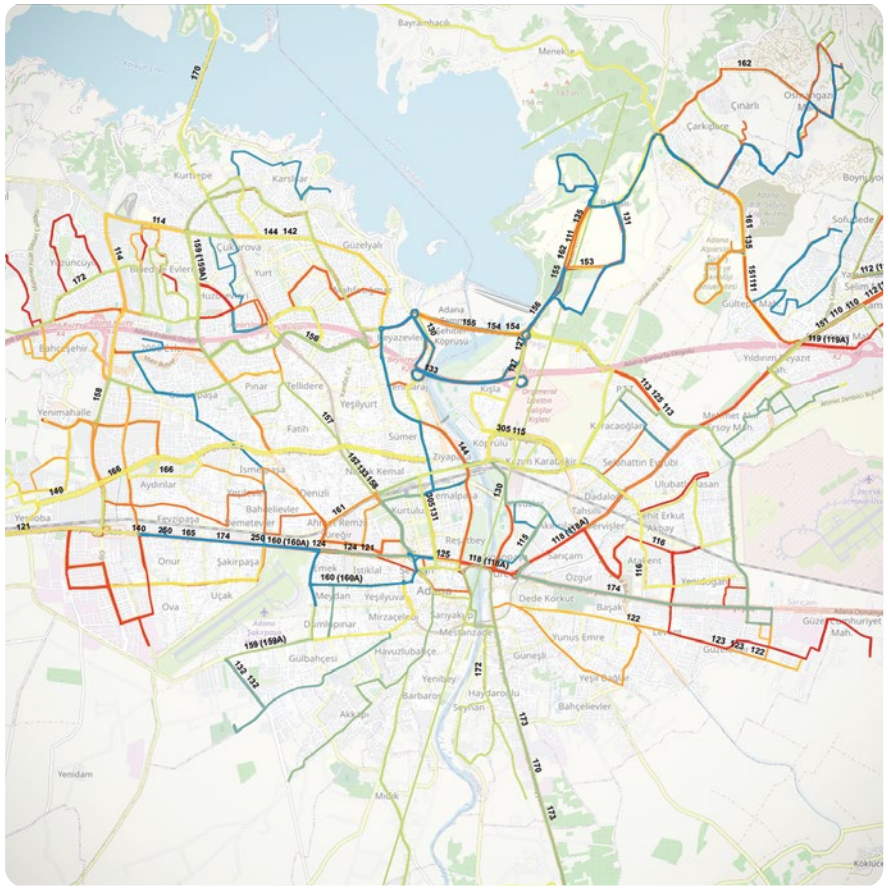
3 **Prioritization**

- Preliminary resource analysis
- Prioritizing the identified needs for each municipality in terms of sectors
- Defining a project list derived from prioritized needs
- Developing project profile sheet

4 **Investment Programming**

- Formulate a phased development program
- Preliminary evaluating the potential financial sources
- Determine the financial viability
- Recommend appropriate institutional models

CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 22 ELECTRIC BUSES AND 3 CHARGING STATIONS FOR ADANA METROPOLITAN MUNICIPALITY



TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: January 2025 — February 2025

Project Client: Adana Metropolitan Municipality

Project Description:

The general purpose of the work to be carried out under this contract is the procurement of consultancy services for the preparation and delivery of Needs Analysis, Feasibility, Financial Assessment Reports and Technical Specifications for the Electrical Buses to be financed under the "Sustainable Urban Mobility Project (SUMART) Loan Financing" in accordance with the procedures of the relevant International Credit Institution and the laws and requirements in force in Turkey.
In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Adana Metropolitan Municipality Public Transportation existing fleet

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and public transportation department's performance

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR HATAY METROPOLITAN MUNICIPALITY

TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: January 2025 — February 2025

Project Client: Hatay Metropolitan Municipality

Project Description:

This Project is about financing the purchase of vehicles and equipment necessary under the Strengthening the Resilience of Municipalities Against Natural Disasters (SMRAND) Project, funded by the Council of Europe Development Bank (CEB), aims to bolster disaster preparedness and infrastructure resilience across Türkiye. Accordingly, this report has been conducted a comprehensive evaluation of the Hatay Metropolitan Municipality Fire Brigade, focusing on needs assessment and financial analysis for its projects. The study assesses factors influencing the fire department's performance, examine district-level needs (across 15 districts of the Hatay province), and identify deficiencies in equipment and vehicles.
In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Hatay Metropolitan Municipality Fire Brigade

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and fire department's performance

Activity 4: Recommendation on Vehicle and Equipment Information and Specifications

Activity 5: Cost Estimation of the required investment

Activity 6: Economic analysis and financial analysis

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR ADANA METROPOLITAN MUNICIPALITY

TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: January 2025 — February 2025

Project Client: Adana Metropolitan Municipality

Project Description:

This Project is about financing the purchase of vehicles and equipment necessary under the Strengthening the Resilience of Municipalities Against Natural Disasters (SMRAND) Project, funded by the Council of Europe Development Bank (CEB), aims to bolster disaster preparedness and infrastructure resilience across Türkiye. Accordingly, this report has been conducted a comprehensive evaluation of the Adana Metropolitan Municipality Fire Brigade, focusing on needs assessment and financial analysis for its projects. The study assesses factors influencing the fire department's performance, examine district-level needs (across 15 districts of the Adana province), and identify deficiencies in equipment and vehicles.
In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Adana Metropolitan Municipality Fire Brigade

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and fire department's performance

Activity 4: Recommendation on Vehicle and Equipment Information and Specifications

Activity 5: Cost Estimation of the required investment

Activity 6: Economic analysis and financial analysis

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 6 ELECTRIC BUSES AND 2 CHARGING STATIONS FOR KASTAMONU MUNICIPALITY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Oct. 2024 - Dec. 2024

Project Client: Kastamonu Municipality

Project Description:

The general purpose of the work to be carried out under this contract is the procurement of consultancy services for the preparation and delivery of Needs Analysis, Feasibility, Financial Assessment Reports and Technical Specifications for the Electrical Buses to be financed under the "Sustainable Urban Mobility Project (SUMART) Loan Financing" in accordance with the procedures of the relevant International Credit Institution and the laws and requirements in force in Turkey.

In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Kastamonu Municipality Public Transportation existing fleet

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and public transportation department's performance

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

TURKEY

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

CONSULTANCY SERVICES FOR PREPARATION OF A FEASIBILITY REPORT FOR THE PURCHASE OF 14 ELECTRIC BUSES AND 3 CHARGING STATIONS FOR SAMSUN METROPOLITAN MUNICIPALITY

PROPOSED E-BUS LINE

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Oct. 2024 - Dec. 2024

Project Client: Samsun Metropolitan Municipality

Project Description:

The general purpose of the work to be carried out under this contract is the procurement of consultancy services for the preparation and delivery of Needs Analysis, Feasibility, Financial Assessment Reports and Technical Specifications for the Electrical Buses to be financed under the "Sustainable Urban Mobility Project (SUMART) Loan Financing" in accordance with the procedures of the relevant International Credit Institution and the laws and requirements in force in Turkey.

In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Samsun Metropolitan Municipality Public Transportation existing fleet

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and public transportation department's performance

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

PREPARATION OF FEASIBILITY ANALYSIS, NEEDS ASSESSMENT AND FINANCIAL EVALUATION REPORTS FOR THE PURCHASE OF FIRE BRIGADE AND EQUIPMENT FOR ORDU METROPOLITAN MUNICIPALITY

EXISTING FIRE STATIONS

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Oct. 2024 - Dec. 2024

Project Client: Ordu Metropolitan Municipality

Project Description:

This Project is about financing the purchase of vehicles and equipment necessary to increase the response capacity of municipal fire services for forest fires, floods, storms and earthquakes, and therefore enable municipalities to be better adapted and prepared to respond to the challenges of climate change and the expected increased impact of extreme weather and natural disasters. Accordingly, the final report focused on the preparation of needs analysis and financial assessment for Ordu Metropolitan Municipality fire brigade projects within the scope of TEWFER Project.
In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

Activity 2: A comprehensive evaluation of the Ordu Metropolitan Municipality Fire Brigade

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and fire department's performance

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

PREPARATION OF NEEDS ANALYSIS, FEASIBILITY REPORT AND FINANCIAL ASSESSMENT REPORT FOR FIREFIGHTING PROJECTS FOR BALIKESIR METROPOLITAN MUNICIPALITY

EXISTING FIRE STATIONS

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: Aug. 2024 - Dec. 2024

Project Client: Balıkesir Metropolian Municipality

Project Description:

This Project is about financing the purchase of vehicles and equipment necessary to increase the response capacity of municipal fire services for forest fires, floods, storms and earthquakes, and therefore enable municipalities to be better adapted and prepared to respond to the challenges of climate change and the expected increased impact of extreme weather and natural disasters. Accordingly, the final report focused on the preparation of needs analysis and financial assessment for Balıkesır Metropolitan Municipality fire brigade projects within the scope of TEWFER Project.

In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipality

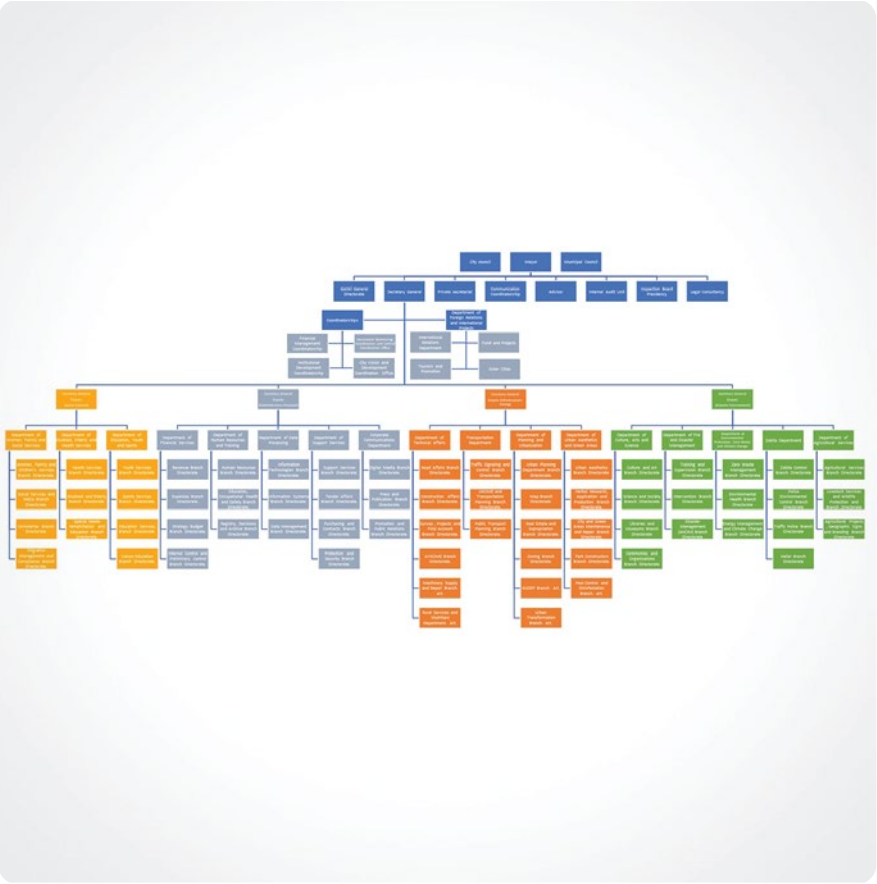
Activity 2: A comprehensive evaluation of the Balıkesır Metropolitan Municipality Fire Brigade

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and fire department's performance

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

DEVELOPMENT OF AN INSTITUTIONAL PLAN AND ORGANIZATIONAL CHART FOR GAZIANTEP METROPOLITAN MUNICIPALITY IN TÜRKIYE



TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: April 2024 - Aug. 2024

Project Client: Gaziantep Metropolitan Municipality (GMM)

Project Description:

As the current strategic plan nears its completion, Gaziantep Metropolitan Municipality is now focused on crafting the upcoming strategic plan for the years 2024-2029. A necessary step for this plan is to evaluate the Gaziantep Metropolitan Municipality performance over the past five years. This evaluation encompasses the assessment of the activities and projects carried out by Gaziantep Metropolitan Municipality, the analysis of Gaziantep Metropolitan Municipality 's institutional performance, and the development of an action plan to serve as the foundation for strategic planning in the upcoming five-year period. Regarding this matter, Gaziantep Metropolitan Municipality has established a consultancy service and selected Protek Yapi ECC to carry out the study. The initial stage of the project has been thoroughly addressed in this professional consultancy service. It encompasses the evaluation of Gaziantep Metropolitan Municipality Institutional performance and the development of an action plan to serve as the foundation for strategic planning over the next five years.

In order to achieve the project outcomes following activities have been done:

Activity 1: Analysis of the current organizational chart

Activity 2: Approach to organizational restructuring and development

Activity 3: Evaluation of the Current Organizational Chart According to Self-Assessment Outcomes

Activity 4: Some issues that reduce the functionality and effectiveness of the organizational structure

Activity 5: Analysis of departmental tasks, repetitive tasks and overlapping tasks

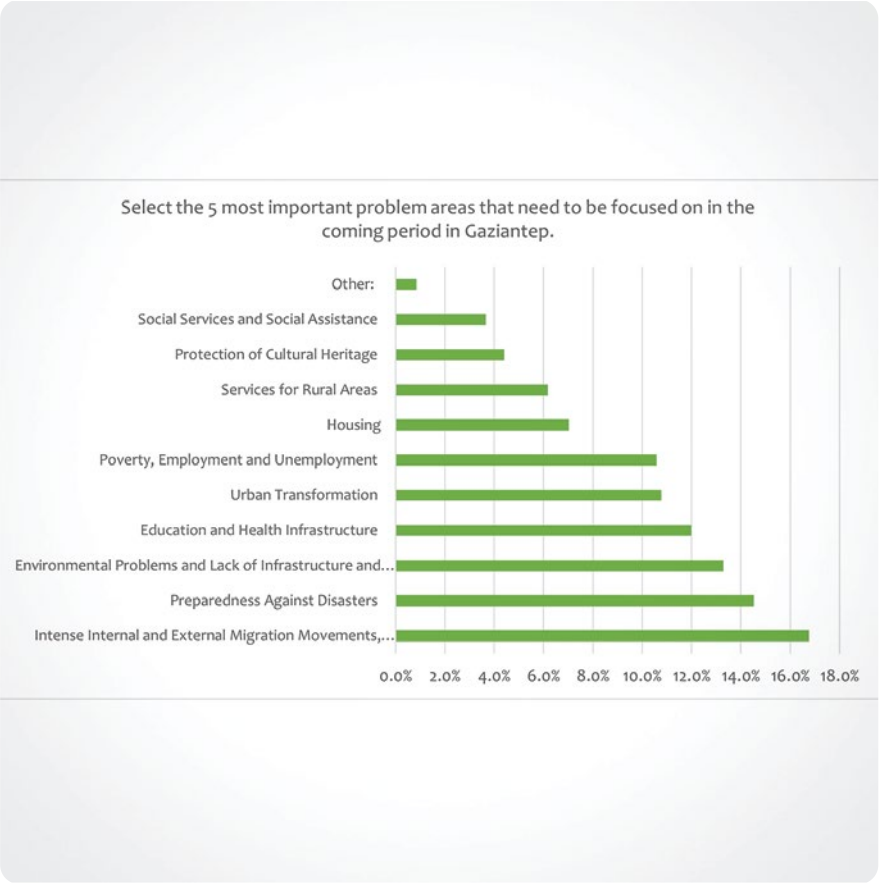
Activity 6: Other issues affecting the functioning and performance of the organizational structure

Activity 7: Organizational Restructuring and Preparation of Organization Chart Proposal

Activity 8: Changes in GMM Organizational Structure

Activity 9: Proposed Strategic Objectives

DEVELOPMENT OF A STRATEGIC PLAN 2025-2029 FOR GAZIANTEP METROPOLITAN MUNICIPALITY IN TURKIYE



TURKEY

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: May 2024 - Aug. 2024

Project Client: Gaziantep Metropolitan Municipality

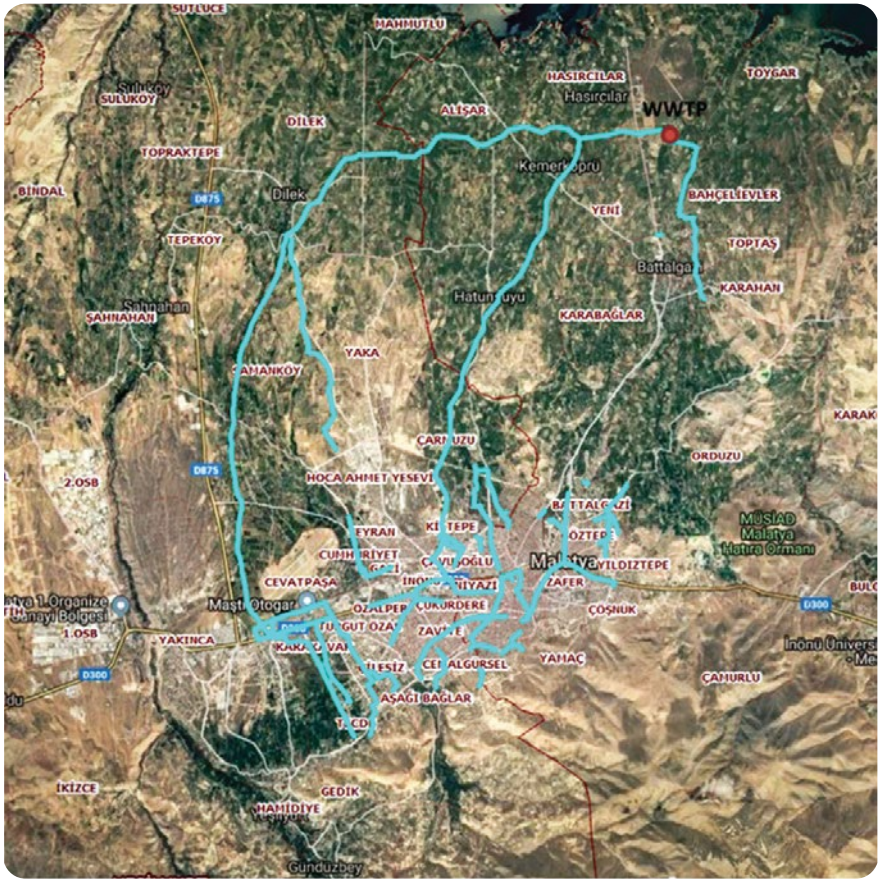
Project Description:

Turkish metropolitan municipalities must prepare a strategic plan for their 5 years of activities. These plans need to be prepared in a participatory way to ensure engagement of all stakeholders. The plan includes a vision and mission and a set of strategic objectives. Also, a list of key performance indicators (KPI) needs to be designate to monitor the implementation. As the current strategic plan nears its completion, Gaziantep Metropolitan Municipality is now focused on crafting the upcoming strategic plan for the years 2024-2029. Regarding this matter, Gaziantep Metropolitan Municipality has established a consultancy service and selected Protek Yapi ECC to carry out the study. The initial stage of the project has been thoroughly addressed in this professional consultancy service. **It encompasses the evaluation of Gaziantep Metropolitan Municipality previous strategic plan and the development of an action plan to serve as the foundation for strategic planning over the next five years.**

In order to achieve the project outcomes following activities have been done:

Activity 1: Situation Analysis
Activity 2: performance evaluation of the previous strategic plan
Activity 3: Gaziantep metropolitan municipality legislative analysis
Activity 4: Gaziantep metropolitan municipality areas of activity
Activity 5: Analysis of top policy documents
Activity 6: Stakeholder analysis
Activity 7: Pestle analysis
Activity 8: Swot analysis
Activity 9: Strategy development including goals and objectives
Activity 10: Activities, projects and performance indicators
Activity 11: Cost estimation and budgeting
Activity 12: Preparing a strategic plan with participatory methods in order to monitor and evaluate the implementation

CONSULTANCY SERVICE FOR PREPARATION OF PROJECT INFORMATION DOCUMENT (PID) AND FEASIBILITY REPORT FOR OSMANIYE AND MALATYA İNFRASTRUCTURE PROJECTS



WATER SUPPLY LINES

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Countries: Turkey

Project Consultancy Duration: May 2024 - Aug. 2024

Project Client: ILBANK

Project Description:

The general purpose of the project was to provide consultancy services for the preparation and delivery of Project Information Document (PID) and Feasibility Report for environmental infrastructure projects including water Supply, Sewage and Wastewater Treatment, and Solid Waste Management projects to be financed under the Emergency Earthquake Loan Financing in accordance with the procedures of the relevant International Credit Institution and the laws and requirements in Turkey.

In order to achieve the project outcomes following activities have been done:

Activity 1: Credibility Assessment of the Municipalities

Activity 2: Situation analysis and diagnosis of the water and sewage system infrastructure in the selected area

Activity 3: Needs Analysis based on the engineering investigation, stakeholder analysis, and professional field survey

Activity 4: Cost Estimation of the required investment

Activity 5: Economic analysis and financial analysis

Activity 6: Social and Environmental Impact Assessment

Activity 7: Project Management, Implementation, Monitoring and Evaluation

Activity 8: Drafting the Final Report

SUPPORTING MIGRANT HEALTH SERVICES IN TURKEY

TURKEY

Name of Legal Entity Completing the Work : Diyalog 360 and protek-yapi

Countries: Turkey

Project Consultancy Duration: Oct. 2023 — July 2024

Project Client: Republic of Türkiye, Ministry of Health Directorate General of Public Health

Project Description:

The overall objective of the project is to improve the health status of the Syrian population under temporary protection, refugees and persons eligible for subsidiary protection in Türkiye by contributing to all migrants' access to quality treatment in the Turkish health system mainly in targeted provincfollowing activities have been done:

Activity 1: The Activity specifically aimed at reducing un-necessary community fear and uncertainty through the provision of clear fact-based, independent and neutral technical advice and guidance on the habitability and safety of buildings and housing units. Engineering teams

Activity 2: Training of Trainers for Health Literacy Programmers (4 modules for youth and 4 modules for adults) on the topics such as commurational drug use, reproductive health etc.

Activity 3: Training of Trainers for Mobile and Outreach Services

Activity 4: Training of Trainers (ToT) for Intra-Uterine Device (IUD) Usage

Activity 5: Reproductive health Activities done for this assignment are for Health Systems Support, Essential Health Services.

OSMANIYE MUNICIPALITY POST-DISASTER PLANNING WORKS IN TURKIYE

OSMANIYE, **TURKEY**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Sub-Consultant: VestA ECC.

Country: Turkey

Date of start and completion: Feb. 2023-Feb. 2024

Project Client: Osmaniye Municipality

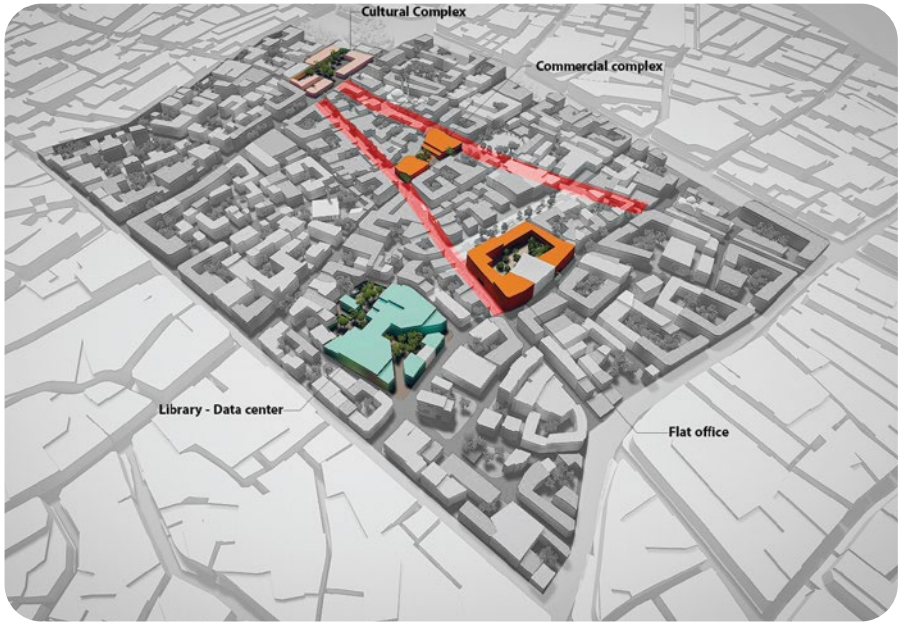
Project Description:

To implement the post-disaster planning at various levels of the city for the municipality of Osmaniye, three components of the plans have been implemented. The study area encompassed the entirety of the Osmaniye province. The study area for the first component was the Osmaniye province boundary. However, the second and third components concentrated on the 50 ha of city center of Osmaniye (the Bazaar District).
Component 1: Development of Osmaniye Strategic Disaster Sensitive Land Use Plan
The objective of this component was to develop a strategic DSLUP in order to prepare a basis for updating zoning (master) plan of Osmaniye. The component consisted of 2 parts as follows:

A. Development of hazard and multi-hazard maps
The principal hazards that Osmaniye City faces, such as earthquake, flood, and liquefaction, have been investigated in greater depth, and their effects considered when developing the city's expansion model.

B. Preparation of City Expansion Plan
Concerning the expansion of Osmaniye, studies have been conducted to identify the safest areas for future development and economic expansion. Furthermore, in accordance with strategies and policies such as land use limitations and construction rules, hazard exposure analysis, mainstreaming DRR (disaster risk reduction) into planning system, and development of TDR (Transfer Development Right), the analysis of resources (financial, human, technological, etc.), needs assessment, SWOT analysis, and the resilient city strategy have been examined.
Component 2: Urban Design Process for Revitalization and Renovation of the City Center
During the 6th February 2023 earthquakes, the City Center area of Osmaniye was damaged. The implementation of an urban design project that includes investment projects to enhance the city's economic viability was intended to renew and revitalize the city center and commercial life.

OSMANIYE MUNICIPALITY POST-DISASTER PLANNING WORKS IN TURKIYE



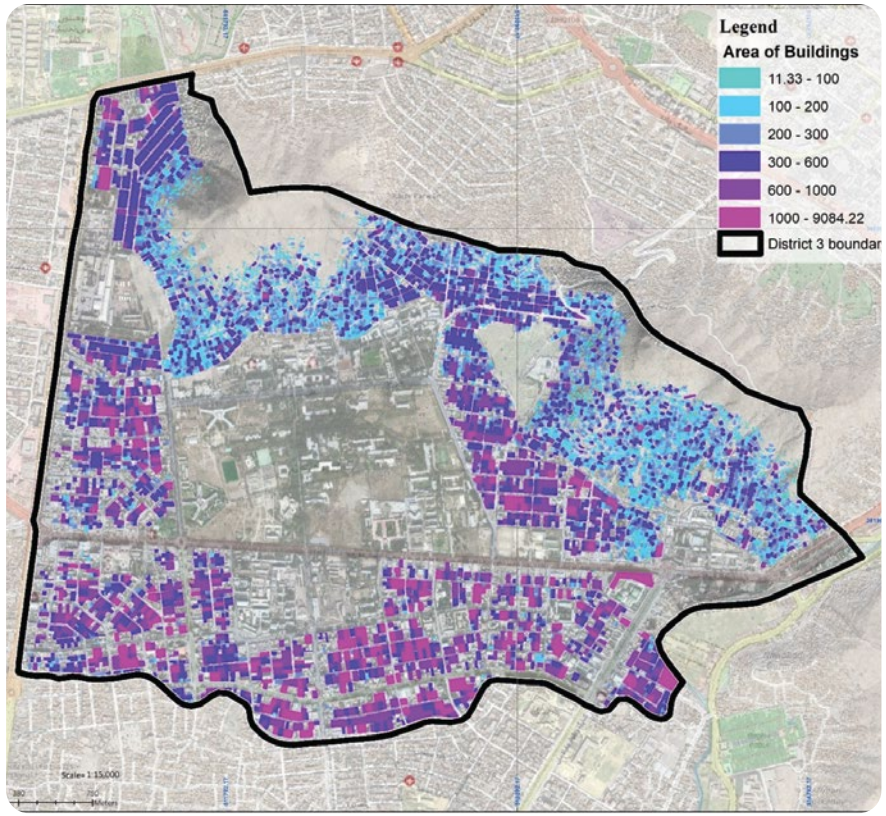
This component consisted of two parts:

- For 50 ha of city center of Osmaniye (the Bazaar District) Revision of the Master plan of Osmaniye city (scale 1/5000), Revision of the integrated detailed plan of Osmaniye city (scale 1/1000) and preparation and compilation of construction rules and regulations. Providing urban design details along with providing the architectural detail design of 5 flagship projects with administrative, commercial and cultural uses in the city center on a scale of 1/1000 and 1/500.

- Detail design for renovating architectural projects and landscape quality improvement preparation and presentation of 3D design along with the creation of detailed design animation for two urban axes within the 50-hectare area on a scale of 1/500 and 1/100. Component 3: Conducting Implementation, Financing and Urban Marketing studies on all plans and details Capturing the growth opportunity by attracting capital investments and population were the primary target. Implementation, Financing and Urban Marketing activities on all plans and details have been carried out in this component.

OSMANIYE MUNICIPALITY POST-DISASTER PLANNING WORKS IN TURKIYE

RESILIENT REGENERATION OF HILLSIDE ORGANIC SETTLEMENTS IN KABUL (PHASE 2)



KABUL, **AFGHANISTAN**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: Nov. 2023 — Ongoing

Project Client: Aga Khan Agency for Habitat

Project Description:

Objective of this study was to review the land use priorities, develop land use plan and suggest findings based on the best practices, formulate zoning regulations and zoning plan based on the land use plan and the priorities provided by the previous consultant, perform feasibility analysis for the proposed projects and develop action plan(s). This study provides guidance strategically aligned with AKDN's Habitat Plan (HP). The HP provides a framework for pan-regional rural and urban planning approach to the built environment created to address AKAH's practices and needs. The project will include the alignment and use of the HP framework and expansion of the process and information thereof — wherein each step of the planning framework will align with the outputs provided by the consultant. The sharing of findings from this report will further inform AKAH, the AKDN, and other relevant key stakeholders, including partners and donor agencies.

RESILIENT REGENERATION OF HILLSIDE ORGANIC SETTLEMENTS IN KABUL (PHASE 2)

KABUL, **AFGHANISTAN**

Outputs

Habitat Assessment:

a. Review Social and Economic Priorities
b. Review Physical and Land-Use Priorities

Modify/Develop Layout plan

a. Modify/Develop the general layout plan.
b. Develop a plan showing existing building footprints and plot layouts.
c. Develop plans for social infrastructure (civic spaces, hierarchy of parks, plazas)
d. Develop plans for physical infrastructure (Mobility, water and wastewater, power, solid waste) with sufficient details to lead construction level drawings. In addition, there should be provisions for integrated green infrastructure where the whole would contribute to resilience and climate conscious use of resources.
e. Indicate the opportunity sites and develop framework details of the vision for the opportunity sites with potential to regenerate the area.

Zoning Plan

Development of Implementation Methodology/Action Plan

Capacity Building of AKAH technical team and other stakeholders on how the planning practice and proposed implementation methodology/action plan

CONSULTANCY FOR THE MICROZONATION OF STUDIES — SALAMIYAH CITY, SYRIA

SALAMIYAH, **SYRIA**

Name of Legal Entity Completing the Work: Protek-Yapi Engineering Co.

Country: Syria

Date of start and completion: December 2023 - Ongoing

Project Client: Aga Khan Agency for Habitat

Project Description:

The purpose of consultancy for Microzonation Studies is to provide expert guidance and advice for organizations, communities, and governments on the risk of earthquakes and other geotechnical hazards such as liquefaction and landslide potential, subsidence, amplification, etc.

Provided Services:

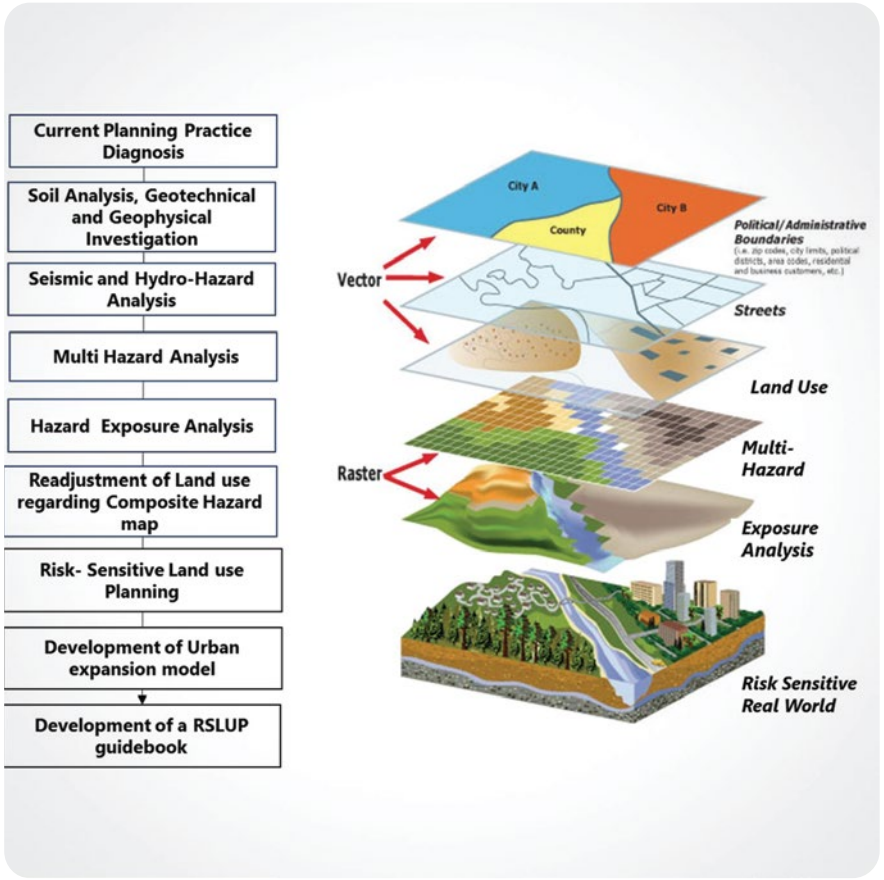
1. Situational Analysis and Diagnosis of the Current Planning

- Reviewing, and preparing a report for the way forward approach to document the current planning system, its legislative foundation, process, approach, practice, evolution, implementation, enforcement, and outputs, document the approach and content of the current town plans and specific plans, assessing gaps in the planning process and identifying potential shortcomings and conflicts in plan development and implementation, collection and updating of resource maps.
- Preparing a comprehensive report on the outcomes of the geotechnical and geological studies reflecting the results and the way forward options. Limitations, list of results, and confidence percentage of results will be defined for each option.

2. The comprehensive study on a city-wide investigation for microzonation purposes including:

- Reviewing existing reports and records that include available related studies.
- Developing probabilistic and deterministic seismic hazard (PSHA / DSHA) maps.
- Based on PSHA/DSHA and topographical maps, geotechnical, geophysical, and hydrogeological investigations inputs and data, site characterization will be carried out, which will result in 2D and 3D subsurface profiling, bedrock maps, subsurface soil deposit models, 3D borehole models, In-situ lab test results, VS/VS30 maps and (N1)60, their relations and understanding their uncertainties.
- Developing seismic microzonation that provides detailed maps of site classification, spatial variation of bedrock as well as surface amplification, liquefaction, and landslide.

CONSULTANCY FOR THE MICROZONATION OF STUDIES — SALAMIYAH CITY, SYRIA



3. Risk sensitive land use planning (RSLUP) and resiliency program

- **Multi-hazard and risk map analysis including:**

- Vulnerability Analysis of critical facilities.
- Vulnerability Analysis of road network.
- Vulnerability Analysis of the current zoning map.
- Exposure analysis in terms of multi-hazard.

- **Exposure analysis to the hazards and multi-hazards including:**

- Natural hazards and safety studies.
- Seismic hazard analysis.
- Liquefaction and amplification hazard analysis.
- Flood and subsidence hazard analysis.
- Integrated exposure map.

- **Mainstreaming DRR into the planning system including:**

- Integrated analysis and identification of gaps in the planning system.
- Legislation foundation of DRR and its relation to the planning system.
- Institutional and financial arrangement.
- Planning and DRR integration.
- Training and knowledge.
- Participation.
- Monitoring.

- **Development of RSLUP strategy and action plans including:**

- Developing the vision and strategies of RSLUP in Salamiyah City.
- Developing the RSLUP action plans in Salamiyah City.

CONSULTANCY FOR THE MICROZONATION OF STUDIES — SALAMIYAH CITY, SYRIA

• Development of Urban expansion model including:

- Determination of indicators and land suitability criteria in Salamiyeh.
- Applying restrictions such as hazard zones, topography, environmentally sensitive areas, etc.
- Scoring indicators and criteria based on experts' opinions.
- Standardization and integration of spatial layers.
- Proposing different alternatives for the city expansion and choosing the best locations.

• Development of an RSLUP guidebook including:

- Introduction and situational analysis.
- Identification of entry points and mainstreaming disaster risk reduction into land use planning of the Salamiyah urban area as well as defining the strategic framework for RSLUP.
- Training and Capacity Building for risk-sensitive planning for four main parts.

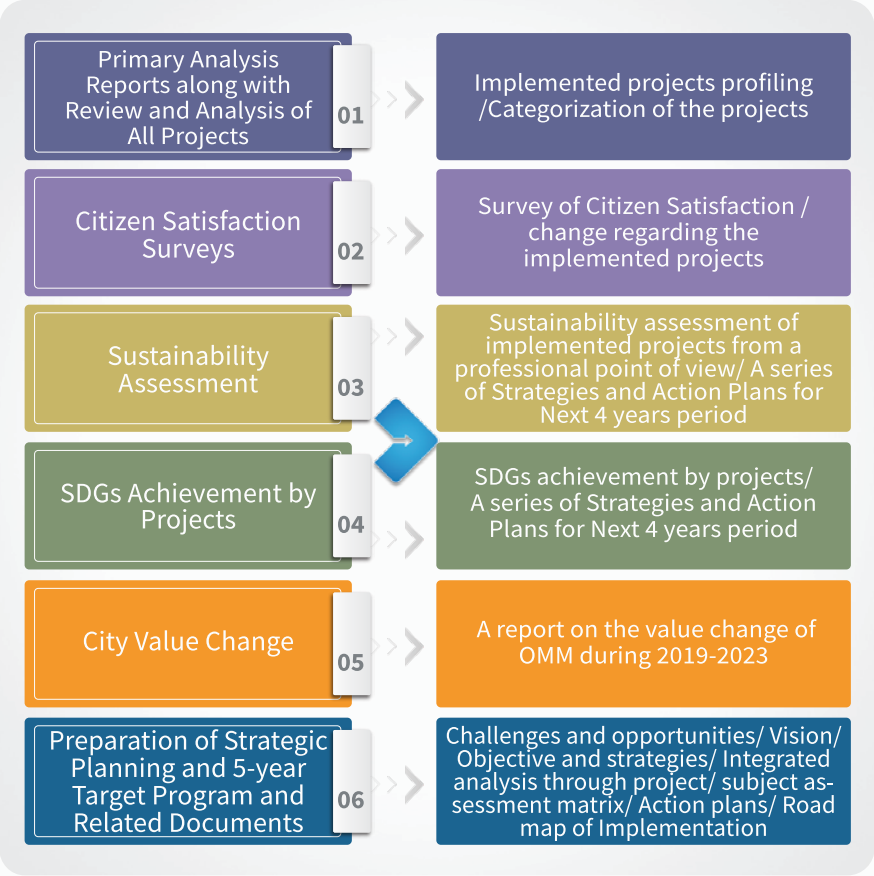
4. GIS processing of analyzed factor maps and data

- Introducing the classification of spatial data in different datasets.
- Production of raster data related to various hazards and production of zoning maps related to multi-hazard.
- Preparation of the geodatabase model based on the latest information received from the different datasets.
- Defining a data dictionary of spatial data, including vector and raster data.

5. At the end of the project, Capacity Building Development will be implemented by:

- 2 Workshops for the AKAH Team to provide technical guidance in the development of Microzonation and RSLUP.
- 1 Workshop for Government Entities to provide a basic understanding of RSLUP and Development perceptions.
- 2 Virtual Seminars on field activities and Geotechnical and Geological studies.

IMPACT ASSESSMENT REPORT FOR THE ORDU METROPOLITAN MUNICIPALITY'S ACTIVITIES BETWEEN 2019-2023



ORDU , **TURKEY**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Sub Consultant: VESTA ECC

Country: Turkey

Project Consultancy Duration: February 2023-January 2024

Project Client: Ordu Metropolitan Municipality

Project Description:

This study project goal was to assess the impact of main urban projects that were carried out between 2019 and 2023 in the Ordu Metropolitan area. Impact Assessment (IA) is a formal, evidence-based procedure that evaluates the potential economic, social, and environmental effects of the projects.

Moreover, one of the objectives of this assessment was to provide a better understanding of the municipality's performance throughout 2019-2023. The assessment was associated with the United Nations' Sustainable Development Goals (SDGs).

In this assessment, aspects such as citizen satisfaction, changes in the achievement of sustainable development, and changes in the value of the city were considered.

The findings of this study provided valuable insights for future efforts aimed at ensuring that Ordu Metropolitan Municipality (OMM) is progressing towards sustainability and prosperity. At Protek Yapi ECC, we considered various factors, including changes in the city's value, changes in citizen satisfaction, and the achievement of sustainable development goals, for the purpose of conducting impact assessments. The Ordu Strategic Plan places considerable emphasis on the vision of the OMM as a region that prioritizes safety, reliability, and virtuousness. Furthermore, its objective is to position the region as a highly appealing location for economic production and investment. Based on such vision, we established a set of criteria and indicators and provide the results of the impact assessment to support the realization of Ordu Metropolitan Municipality's vision and to ensure a prosperous future.

The study consisted of two main components: 1. Impact Assessment 2. Credit Worthiness

DETAILED DESIGN PREPARATION FOR RECONSTRUCTION/ REHABILITATION FOR PUBLIC SCHOOLS LOCATED IN IMERETI

IMERETI, **Georgia**

Name of Legal Entity Completing the Work :

The Joint Venture of Protek-Yapi Engineering Co. and VESTA ECC.

Country: Georgia

Date of start and completion: August 2021-Ongoing.

Author Supervision phase (final phase of the project has remained).

Project Clients: Municipal Development Fund of Georgia, World Bank

Project Description:

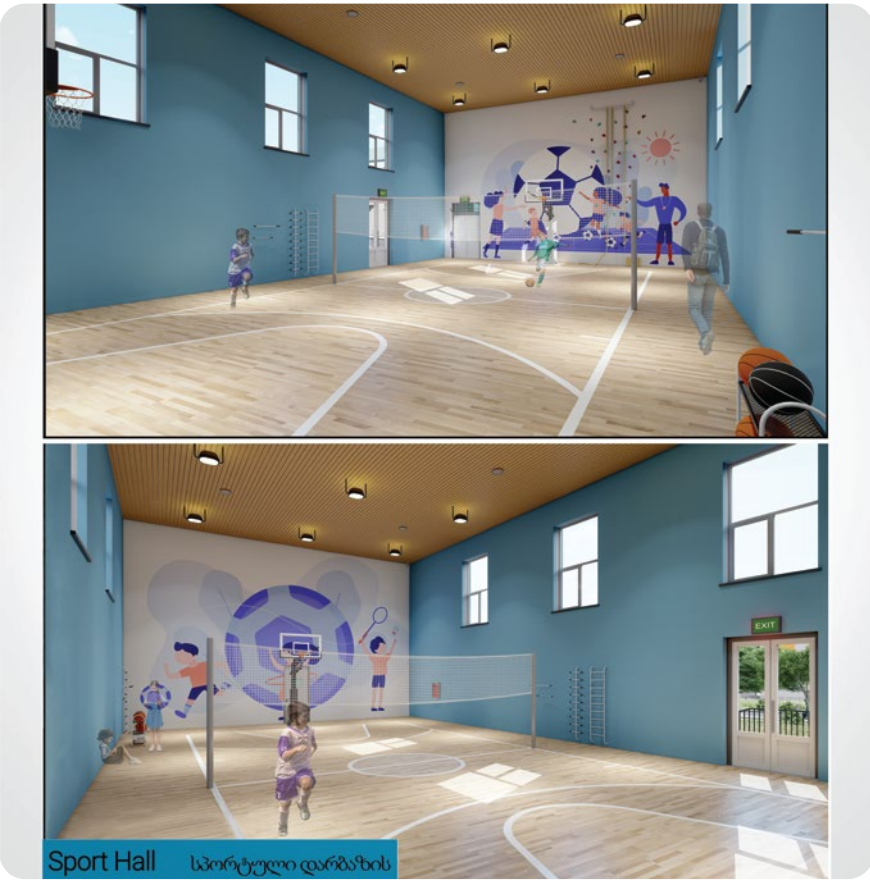
The objective of the assignment was to develop the detailed design, cost estimation, and tender documentation for rehabilitation and increasing of energy efficiency measures for public schools (and associated facilities/buildings that could be a part of the school complex) in Imeretl (5 schools), to produce a complete set of bidding documents.

Provided Services:

1. Surveys and investigation activities including:

- Cadastral information extracted from the public registry
- Geological survey and geotechnical analysis;
- Building survey, including structural/seismic assessment;
- Measurement drawings;
- Walk—through energy audit;
- Topographical survey;

DETAILED DESIGN PREPARATION FOR RECONSTRUCTION/ REHABILITATION FOR PUBLIC SCHOOLS LOCATED IN IMERETI



IMERETI, **Georgia**

2. Preparation of preliminary design including:

- Electrical part;
- Plumbing system;
- Technological part;
- Heating-ventilation and HWS part;

3. Preparation of detailed design including:

- Technical reports;
- Work schedule and bidding documents preparation etc.
- Bill of quantities — BoQs (priced and unpriced), indicating resource and sum up versions,
- Technical specifications, taking particular account of the seismic characteristics of the project;
- Detailed designs (interior, electrical, plumbing, technological, heating-ventilation, organization of construction, etc.) and technical specifications including all necessary data collection, surveys, and analysis to cover all aspects of detailed design;

4. Project approval;

Project implementation and the author (designer) supervision during the execution of the civil works.

USAID-BHA RAPID AND SUSTAINABLE SHELTER SOLUTIONS

GHAZIANTEP & ELBISTAN, **TURKEY**

Name of Legal Entity Completing the Work :

Miyamoto International Inc. and Protek-Yapi Engineering Co.
Protek-Yapi is sub-consultant in this contract (sub-consultant of Miyamoto International Inc)

Country: Turkey

Date of start and completion: February 2023 — February 2024

Project Clients: USAID's Bureau of Humanitarian Assistance (BHA)-Gaziantep and Kahramanmaraş Municipalities

Project Description:

The USAID/BHA 2023 Turkey Earthquake Response Activity seeks to provide rapid and sustainable emergency shelter solutions that accelerate the safe return home of Internally Displaced Persons (IDPs) and the early recovery of affected communities.
With a focus on the Gaziantep and Elbistan cities, the interventions proposed under this project support families in the Gaziantep and Kahramanmaraş provinces to assess the safety and habitability of their homes (or small businesses if located in the same buildings), and implement emergency repairs. Educational campaigns, trainings, the provision of technical assistance, and the dissemination of resources equip households and communities with the knowledge needed to facilitate the rapid return of displaced households, foster autonomous community growth in disaster preparedness, and strengthen confidence in the safety of homes to withstand future shocks.
A variety of means have been explored to best achieve the project goals, which are integrated in the below proposed interventions:

Activity 1:
The Activity specifically aimed at reducing un-necessary community fear and uncertainty through the provision of clear fact-based, independent and neutral technical advice and guidance on the habitability and safety of buildings and housing units. Engineering teams identified undamaged Level structures.
Where needed, the team made additional reparability assessments on structures.

During assessment, engineers have been supported families to assess the safety and habitability of their homes. A key message flyer in which related engineering definitions have been explained in a very simple and understandable way was prepared and distributed among families.
Because of this activity, more than **20,000 households** in Gaziantep and Elbistan have been equipped with improved knowledge on structural safety issues as it pertains to their homes. This benefits upwards of **70,000 individuals** and seek to reduce the number of IDPs.

USAID-BHA RAPID AND SUSTAINABLE SHELTER SOLUTIONS

Activity 2:

In this activity, the assessments provided households with the necessary information and guidance to rapidly, cost-effectively and safety repair of light damaged houses and apartment buildings for habitability.

For this intervention, a repairability and cost quantification assessment methodology has been developed and made available in an App-based format. Approximately **2500 light-damaged structures** have been assessed and the repair needs, cost estimates, and Bill of Quantities (BOQs) for each inspected building has been produced, providing the targeted households with the necessary information to rapidly, and safely implement cost-effective repairs. This intervention benefits at least **10,000 households**, or upwards of **45,000 individuals.**

The repair strategies for each building type have been packaged into guidelines and communication materials for broader dissemination and use. The guidelines and corresponding communication materials have been designed for a technical and non-technical audience, and include visual aids, key messages, and data expressed in easily understandable terms. The material served as a communication tool to provide guidance on how best to repair non-structural damage safely, as well as inform households on common types of damages, their repairability, average cost of repair, and other data or details as deemed important.

USAID-BHA RAPID AND SUSTAINABLE SHELTER SOLUTIONS

Community Engagement and Trust Building: Town-hall meetings, awareness campaigns, and direct interactions have been conducted to engage with the affected communities, build trust, and restore confidence in the safety of their homes to facilitate the achievement of overall project goals. This step included townhall meetings and community events conducted in each of the thirty-eight districts of Gaziantep and also in Elbistan. A rapid study on community self-recovery capacity have been conducted in order to make sure the Activity and associated interventions are locally and politically relevant and leverage on existing knowledge and skillsets. Based on this study, a multifaced plan designed and implemented including:

- Baseline surveys in tent camps and container settlements.
- Face to Face communication.
- Mukhtar meetings.
- Townhall meetings.
- social media campaign.

Because of this activity, more than **20,000 households** in Gaziantep and Elbistan have been equipped with improved knowledge on structural safety issues as it pertains to their homes.
This benefits upwards of **70,000 individuals** and seek to reduce the number of IDPs. Also, approximately more than **7,000 people** attended in-person events, such as the townhall meetings. In addition, through social media campaigns, the Activity has been reached more than **100,000 people** across Turkey.

CATHOLIC RELIEF SERVICES (CRS)- RAPID AND SUSTAINABLE EMERGENCY SHELTER SOLUTIONS

GHAZIANTEP, **TURKEY**

Name of Legal Entity Completing the Work :

Miyamoto International Inc. and Protek-Yapi Engineering Co.
Protek-Yapi is sub-consultant in this contract (sub-consultant of Miyamoto International Inc)

Country: Turkey

Date of start and completion: February 2023-November 2023

Project Clients: Catholic Relief Services (CRS) - Gaziantep Municipality

Project Description:

This project has been implemented in parallel with USAID-BHA Rapid and Sustainable Emergency Shelter Solutions project to support communities globally in disaster preparedness and response.
The proposed interventions for this project corresponded with the following purposes.

Purpose 1: Informing and Empowering communities through pedagogical awareness and communications campaign.
Purpose 2: Facilitating the return home of Internally Displaced Persons (IDPs) to safe/un-damaged structures.
Purpose 3: Facilitating the safe return home of IDPs to repairable structures.
Purpose 4: Increasing access to Activity resources and tools.

Because of this project, more than **5,000 households** in Gaziantep, who can occupy undamaged buildings, have been access to critical structural safety information. Also, approximately **1,500 light-damaged structures** have be assessed and the repair needs, cost estimates, and Bill of Quantities (BOQs) for each inspected building have been produced, providing the targeted households **(7,500 households)** with the necessary information to rapidly, and safely implement cost-effective repairs. Miyamoto-Protek designed and implemented a broader community pedagogical communication campaign (physical brochures, posters, and digital publications) targeting displaced households of habitable structures.

TURKEY EARTHQUAKE SHELTER RECOVERY PROGRAM FUNDED BY NADACIA HABITAT FOR HUMANITY INTERNATIONAL (NADACIA HFHI)

GHAZIANTEP & ELBISTAN, **TURKEY**

Name of Legal Entity Completing the Work :

Miyamoto International Inc. and Protek-Yapi Engineering Co.
Protek-Yapi is sub-consultant in this contract (sub-consultant of Miyamoto International Inc)

Country: Turkey

Date of start and completion: August 2023-March 2024

Project Clients: Habitat for Humanity (HFH)-
Gaziantep and Kahramanmaraş Municipalities

Project Description:

The following interventions have been implemented during this project for the Elbistan Municipality, a municipal organization situated in Kahramanmaraş province in the eastern Anatolia of Republic of Turkey and also Gaziantep Municipality.

Intervention 1. Designing and implementing an effective communication campaign aimed at promoting the reoccupation of undamaged structures.

Intervention 2. Developing and implementing performance, repairability and cost quantification assessments for lightly and/or moderately damaged and rapidly repairable structures.

Intervention 3. Disseminating building repair guidelines and best practices

Intervention 4. Rapid repair construction of buildings in select districts.

Intervention 5. Implementing a communication campaign to further assist in disseminating information on the cost-effective, and safe repair methodologies.

Intervention 6. Development of construction tender documents for competitive bidding.

Intervention 7. Development of rehabilitation construction schedule and training of contractors.

TURKEY EARTHQUAKE SHELTER RECOVERY PROGRAM FUNDED BY NADACIA HABITAT FOR HUMANITY INTERNATIONAL (NADACIA HFHI)

GHAZIANTEP & ELBISTAN, **TURKEY**

During this project:

- Undamaged structures were identified and their households (11,000 households) have been equipped with improved knowledge on structural safety issues as it pertains to their homes.
- Approximately 2500 light-damaged structures have been equipped with the necessary information and guidance to rapidly, cost-effectively and safety repair of light damaged houses. The repair needs, cost estimates, and Bill of Quantities (BOQs) for each inspected building have been provided.
- The repair strategies for each building type have been packaged into guidelines and communication materials for broader dissemination and use.
- Miyamoto-Protek team provided necessary support to repair 25 units in the field.

For Community Engagement and Trust Building, a multifaced plan designed and implemented including:

- Brochure distribution and general informative sections: Totally 5000+ brochures were distributed and more than 10000 people were informed.
- Town-hall event at red-crescent office.
- Municipality department leads and managers lessons-learnt.
- Municipality staff brochure distribution and informing.
- Town-hall for "mukhtars and community leaders".
- Live-streaming via YouTube/Instagram channels during town-halls.
- Social media campaign: Six posts have been designed for social media campaign. The total Unique Reach at the end of the Social Media Campaign is 2,621,378.

TRANSPORTATION MASTER PLAN OF OSMANIYE

OSMANIYE, **TURKEY**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Sub-Consultant: VestA ECC.

Country: Turkey

Date of start and completion: June 2022-Jan. 2024

Project Client: Osmaniye Municipality

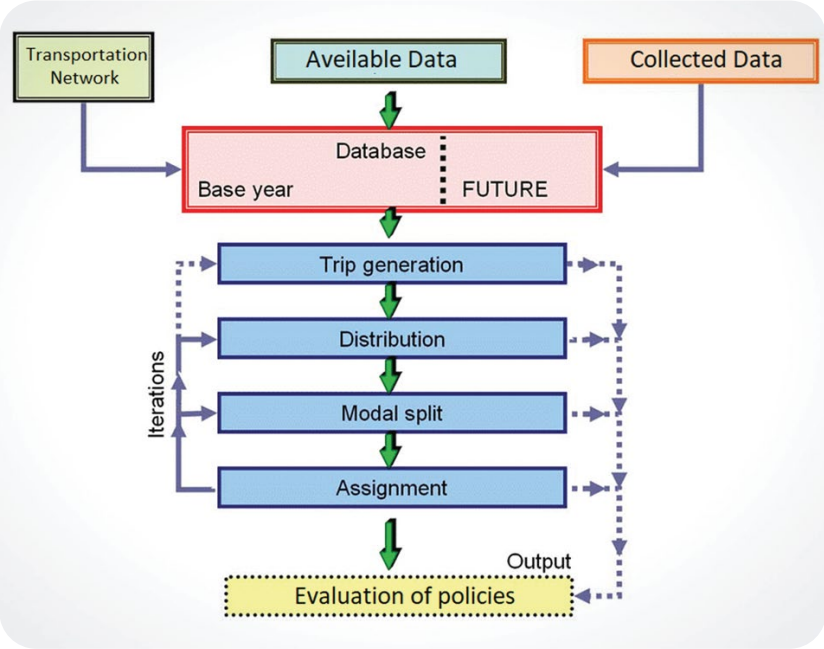
Project Description:

Osmaniye, which is one of the most important cities of the Mediterranean Region in terms of its historical, cultural features and geographical location, causes significant problems in urban transportation due to factors such as rapidly increasing population, labor, vehicle ownership, new settlement areas opened to construction and increasing traffic congestion in summer months with a focus on tourism, as well as the expansion of borders. The necessity of an urban transportation plan in which the principles of sustainability and environmental sensitivity are taken into consideration and the issue of social justice is taken into consideration is emerging to eliminate the problems in urban transportation.

The Transportation Master Plan (TMP) is one of the most significant studies in the era of transportation planning in every populated city. For the Osmaniye TMP project the 4-steps travel demand model as a ubiquitous framework was adopted. The project consisted of the following phases:

Phase 0: Evaluating the performance of the current transportation network and examine the available data

TRANSPORTATION MASTER PLAN OF OSMANIYE



	Alt 1: Do Nothing	Alt 2: Expand the Road network	Alt 3: Active Transportation and Transit	Alt 4: Multi-Modal Approach
Transportation Service	○	◑	◑	●
Natural Environment	◑	◑	◕	◕
Policy Environment	○	◑	◕	●
Economic Environment	○	◕	◕	●
Cost	●	◔	◑	◔
Recommendations	Not Preferred	Not Preferred	Not Preferred	Recommended

Least Preferred → Most Preferred

Phase 1: Large-scale data collection. Collected data consist of:

- The household survey (the sample covers over 5 percent of the population)
- Passenger surveys (pedestrians and drivers)
- Junction and screen line traffic counts
- Measuring the transportation network features (geometric design of transportation network elements and specification of public transportation)
- Land use, population, and employment attributes of Osmaniye city

Phase 2: Preparation of data description report which gives useful information about travel behaviour patterns and socio-economic attributes of people

Phase 3: Calibrating the 4-steps travel demand model which consists of the following sub-models (the model is calibrated by expert transportation planners using Visum macro-simulation software)

- Trip generation
- Trip distribution
- Modal split
- Traffic assignment

Phase 4: Forecasting future travel demand of Osmaniye

Phase 5: Generating transportation policies to make a suitable balance between future travel demand and supply in Osmaniye

Phase 6: Evaluating policies and propose selected policies Finally, a multi-modal approach which provides the greatest benefit to the overall transportation system has recommended as the preferred transportation solution for Osmaniye.

INFRASTRUCTURE PROJECT PORTFOLIO MANAGEMENT OF OSMANIYE

OSMANIYE , **TURKEY**

Name of Legal Entity Completing the Work :
Protek-Yapi Engineering Co.

Country: Turkey

Date of start and completion: June 2022-Jan. 2024

Project Client: Osmaniye Municipality

Project Description:

Establishing a sustainable municipal infrastructure for Osmaniye can only be achieved by gathering all Infrastructure Projects in a single center, managing and optimizing these projects in a way to minimize the discomfort of citizens from a single center, and sharing the current situation and planning with the citizens in a transparent manner. In this context, two main objectives shaped the basis of this project.

i) Providing technical support for faster delivery and effective management of municipal infrastructure.

ii) Increasing the technical capacity of the municipality and to manage the effective planning, delivery, operations and maintenance of municipal infrastructure for sustainable service delivery.

Service Provided:

TECHNICAL SUPPORT SERVICES

- Ensuring the creation and implementation of the relevant strategic targets in line with the mission and vision of Osmaniye Municipality, and to monitor the budget and performance realizations in this direction.

PROJECT MANAGEMENT SERVICES

- Preparing work plans, to monitor, supervise and coordinate the works in order to ensure that the activities of all infrastructure projects planned to be carried out by the municipality are effective, efficient and in accordance with the purpose.
- Planning and coordinating transportation, traffic and public transport services during infrastructure constructions.

INFRASTRUCTURE PROJECT PORTFOLIO MANAGEMENT OF OSMANIYE

- Coordinating the implementation of road geometric arrangement and level crossing projects, pedestrian and bicycle transportation projects, all kinds of different level bridge intersection projects including art structures, lower-upper pedestrian crossings, children's traffic education park projects, public transportation transfer centers and transportation and traffic management control center projects within the scope of transportation and traffic planning studies within the boundaries of the municipality.
- Ensuring that route profiles are prepared and land modeling is carried out to form a basis for the work of infrastructure projects on the main traffic arteries.
- Coordinating with the relevant institutions and organizations on the infrastructure excavations to be carried out on the main traffic arteries, roads, intersections, asphalt, green areas and similar works and all kinds of works on the highway, to provide the necessary traffic permits, to determine alternative routes and routes.
- Preparing regulations on public transport, transportation and traffic regulations when necessary, during the project process and to contribute to the implementation of these regulations.
- Taking the annual draft investment and asphalt programs of the infrastructure Public Institutions and Organizations that invest throughout Osmaniye from the relevant institutions, to combine them and to prepare the draft annual program for Osmaniye in general.

MONITORING EVALUATION

- Developing a Monitoring Plan that includes specific parameters for site visits, asset verification and data collection for each of the project sites and locations that are made/planned and planned within the scope of the municipality.
- Preparing the Construction Phase Environmental and Social Management and Monitoring Plan.

SECURITY AND AWARENESS

- Ensuring traffic order and safety on the main arteries that Osmaniye Municipality is responsible for construction and maintenance.
- Providing technical support to the Municipality regarding the construction of traffic light signs and sign signs at intersections and places deemed necessary as a result of counting and surveys during the project applications.
- Carrying out studies to correct the defects in the roads and intersections that are responsible for construction and maintenance.
- Examining all kinds of manufacturing and installation works of traffic sign signs required to ensure traffic safety on the highways for which Osmaniye Municipality is responsible for construction and maintenance.
- Providing Financial, Risk and Contract management support to the Municipality with the aim of enabling professional service providers to effectively manage their contracts and performance, requiring technical support.

INFRASTRUCTURE PROJECT PORTFOLIO MANAGEMENT OF OSMANIYE

OSMANIYE , **TURKEY**

- Determination of financial and operational actions, methods, creation of model and business plan, asset valuation, resource research, efficiency analysis and proposing alternative solutions for financial problems with government support and grants
- Planning, designing and implementing a general risk management process for the municipality

- One of the most important tasks among City Management is to create a two-way communication with citizens to provide precise and updated information about news, events, constructions and any other related matter that in any way may affect daily lives or commute of individuals while enabling the residents to provide their concerns and feedbacks at a touch of a finger. MyCity is an integrated system provided on web and mobile platforms that runs on the groundings of the internet. Some of the features of MyCity are;

- Enabling residents to provide feedbacks or track the status of a previously created concern about the city.
- Providing remote services to minimize transportation of residents
- Tourism
- Virtual meetings with authorities
- Navigation while applying latest temporary updates related to events or constructions on the map (Defining non-entrance zones)

CONSULTANCY SERVICE FOR CONDUCTING AN URBAN RESILIENCE AND MUNICIPALITY'S LAND & PROPERTY VALUE ANALYSIS OF OSMANIYE PROVINCE IN TURKIYE

OSMANIYE, **TURKEY**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

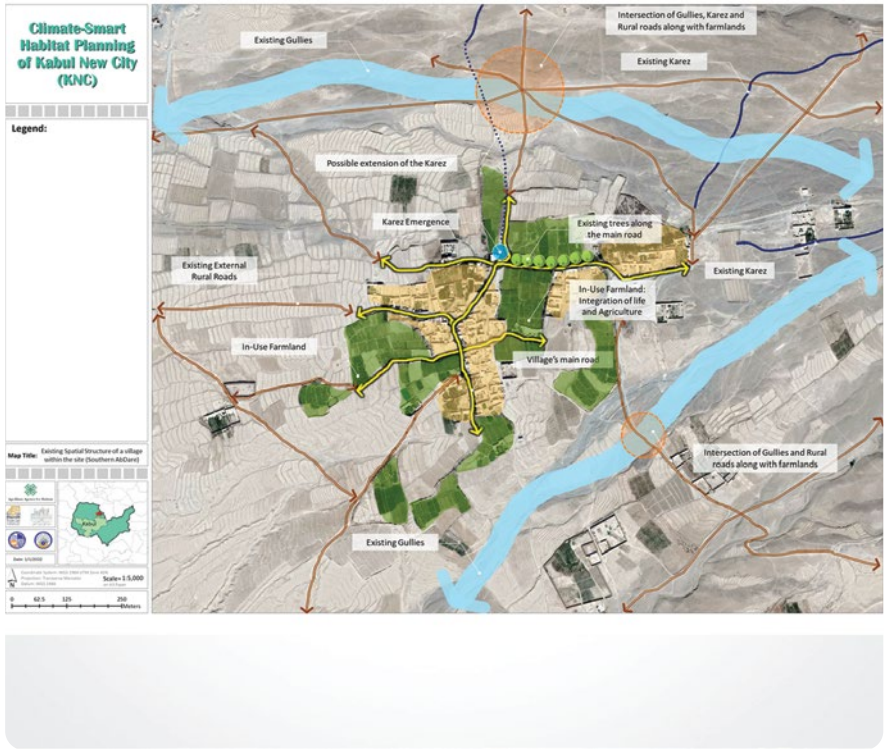
Date of start and completion: 2022-2023

Project Client: Osmaniye Municipality

Project Description:

The main goal of “Urban Resilience Action Plan” consultancy service is to conduct analysis of urban resilience profiles, the preparation of emergency action plans, and Municipality's land and property value analysis. Osmaniye, one of the most important cities in the Mediterranean Region due to its history, cultural features and geographical location, is experiencing significant problems in urban fragility due to external factors that threaten it. In order to eliminate the problems in urban fragility, the necessity of an urban resilience study in which sustainability and environmental sensitivity principles are taken into consideration and the issue of social justice is taken into consideration emerges. The major focus of this project was the analysis of Urban Resilience Profiles and the creation of Emergency Action Plans in two scales:
First level; regional level which have been done in district levels of Osmaniye Province which include: Bahçe, Düziçi, Hasanbeyli, Kadirli, Osmaniye, Sumbas and Toprakkale.
Second level; all neighborhoods of Osmaniye City which include 37 neighborhoods.
This study followed up to support local governments and relevant stakeholders to transform urban areas into safer and better places to live in, improving their capacity to absorb and rebound quickly from all potential shocks or stresses, leading them towards sustainability, and finally estimate the market value of land, buildings, and real estate, to maximize Municipality's profit from a sale or rental agreement.
In order to evaluate Osmaniye Province regional resilience, a novel indicator-based approach was proposed to measure resilience at the regional scale using only publicly available statistical data. The selection of indicators was based on PEOPLES framework’s dimensions and components. To translate these indicators from a qualitative measure into a quantitative measure, their interdependency and importance have been evaluated through a Delphi Method and combined to obtain weighting factors.
Urban resilience has been broken down into four components: HEALTH & WELLBEING, SOCIAL & ECONOMIC, INFRASTRUCTURE & ECOSYSTEMS, LEADERSHIP & STRATEGY.

CLIMATE-SMART HABITAT PLANNING FOR NEW KABUL CITY



KABUL , **AFGHANISTAN**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: July 2021-July 2023

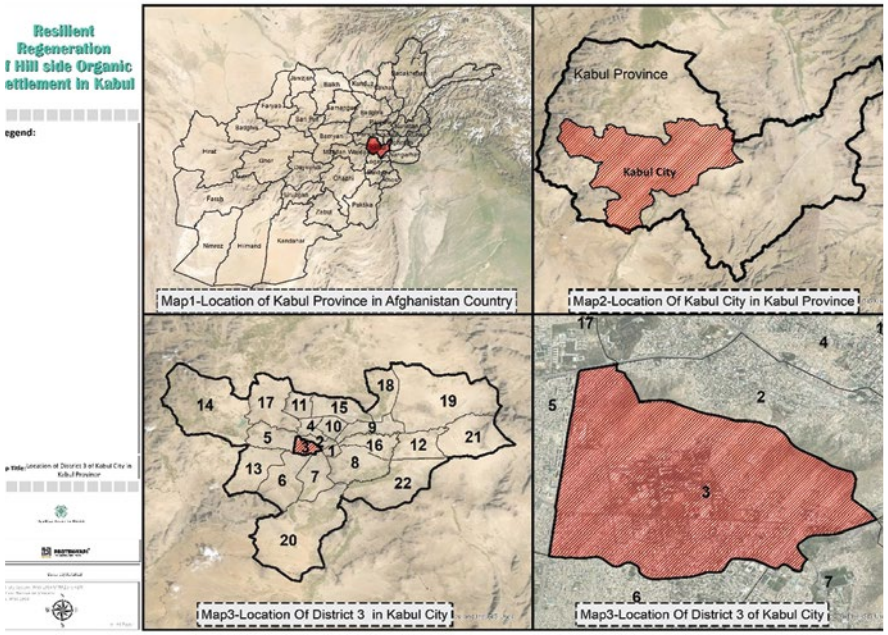
Project Client: Aga Khan Agency for Habitat

Project Description:

AKHA intended to prepare a plan in close coordination with Ministry of Urban Development and Land in which to form a site in New Kabul city focused on climate-smart and resilient Habitat Planning, incorporating the lessons learned from previous projects in order to support the strategic initiatives of the Islamic Republic of Afghanistan.
In the face of disasters and climate change, green and resilient development is critical for economic growth and social justice in Afghanistan, especially for vulnerable groups, women heads of households, and voiceless groups. The objective of this study was:

- To review the land use and detail plans of the NKC area suggest findings based on the best practices (European and American standard) and findings of the habitat assessment (inclusive of natural hazards assessment (geo hazard, hydro) & fire based on modellings and remote hazard assessment).
- Provide alternative detail design for at least 3 major areas/corridors of NKC.
- Conduct the environmental and social impact assessment of the NKC and proposed mitigation measures for the implementation phase.
- Finally suggest the implementation strategy of the NKC

RESILIENT REGENERATION OF HILLSIDE ORGANIC SETTLEMENT OF DISTRICT 3 IN KABUL (PHASE I)



Resilient Regeneration of Hill side Organic settlement in Kabul

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: August 2022 — December 2023

Project Client: Aga Khan Agency for Habitat

Project Description:

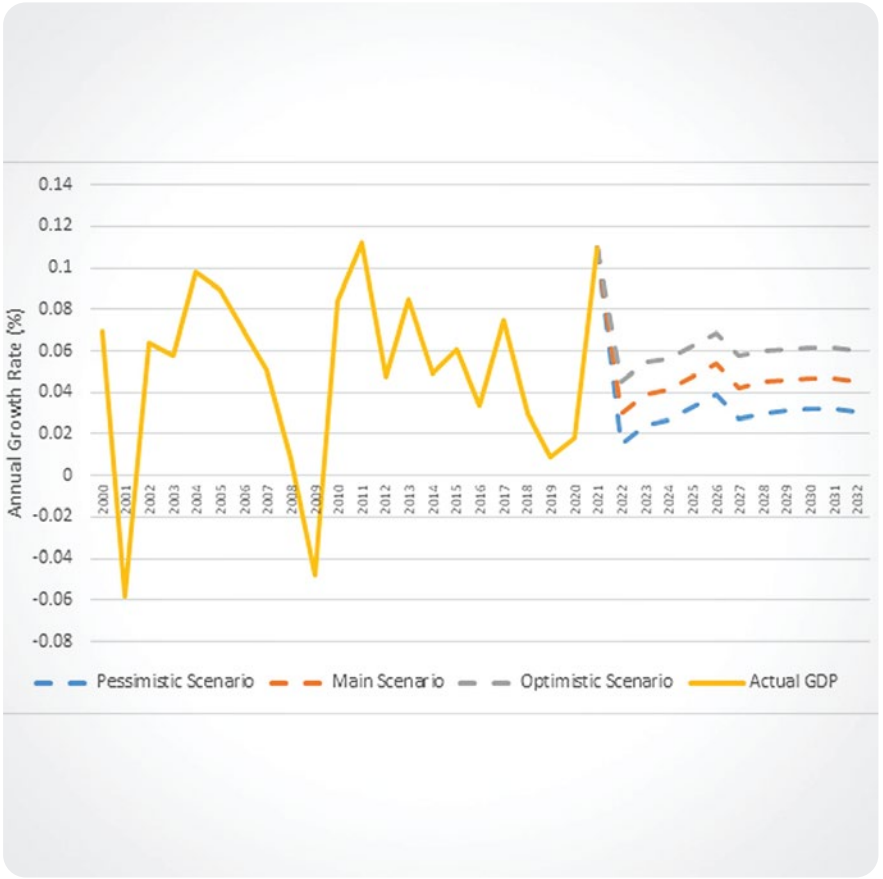
In recent years, AKAH has developed several projects in Afghanistan, including Habitat Planning, Green Building Guidelines, and Climate Change Mitigation and Adaptation related program and initiatives. The aim of these projects was to provide Afghans in urban and rural areas with sustainable, affordable, and resilient housing as well as a high-quality living environment. Given that Afghanistan is vulnerable to several natural disasters, including earthquakes, floods, and the impacts of climate change, the lessons learned from these experiences should be applied to more cities and villages.
Preparing resilient master plan and zoning development plan are the most important tools for reducing risk, increasing resilience, and promoting sustainable development.
The informal settlements on a sloping terrain in Kabul's District 3 are vulnerable to a variety of threats, but the capacity of the people is insufficient to adapt to the hazards. Both the physical and socioeconomic conditions in this area are insufficient to withstand the threats, leaving them relatively exposed. Due to the historic character of this district, resilience-based regeneration is a suitable strategy for its upgrade. This endeavor under the aegis of the habitat planning framework has the potential to serve as a model for similar districts in Kabul and other locations.

Provided Services:

The project was defined by the Aga Khan Agency for Habitat (AKAH) in the year 2022 and consisted of three primary deliverables. The main goal was to conduct a habitat assessment. The project was successfully completed by Protek-Yapi Company, utilizing the available data from OpernStreetMap (OSM), previous reports, Field surveys and other relevant sources.
The main objective of the initial deliverable was to assess the socio-economic analysis of the area. This involved gathering historical and current data, as well as evaluating projected social and economic trends, needs, and opportunities. The evaluation encompassed a review of demographic changes, economic growth, and potential prospects. Additionally, it examined the community's access to essential infrastructure and amenities, such as healthcare, water, sanitation, and education. The second major output of it involved conducting a physical and land use assessment. During this stage, an analysis of natural hazards such as earthquakes and floods was performed, resulting in the creation of hazard level maps. Additionally, various factors including historical analysis, road hierarchy analysis, and land use zoning analysis were examined.The ultimate outcome of this study was an exposure analysis and land suitability analysis, which provided insights into the vulnerability of buildings, critical facilities, and road networks to multiple hazards.

KABUL, **AFGHANISTAN**

SPECIAL TECHNICAL SPECIFICATION FOR THE PROCUREMENT OF CREDIT ASSESSMENT REPORTS FOR THE PROVISION OF LOANS PROVIDED BY ESKIŞEHIR AND ŞANLIURFA METROPOLITAN MUNICIPALITIES



TURKEY

Name of Legal Entity Completing the Work :

Protek-Yapi Engineering Co.

Country: Turkey

Year: 2022

Project Client: ILBANK- Eskişehir metropolitan municipality- Şanlıurfa metropolitan municipality

Project Description:

The subject of the project was to evaluate the financial strength and credit of the municipality and the risk of loan allocation to the municipality. In general, the report consists of 3 parts:

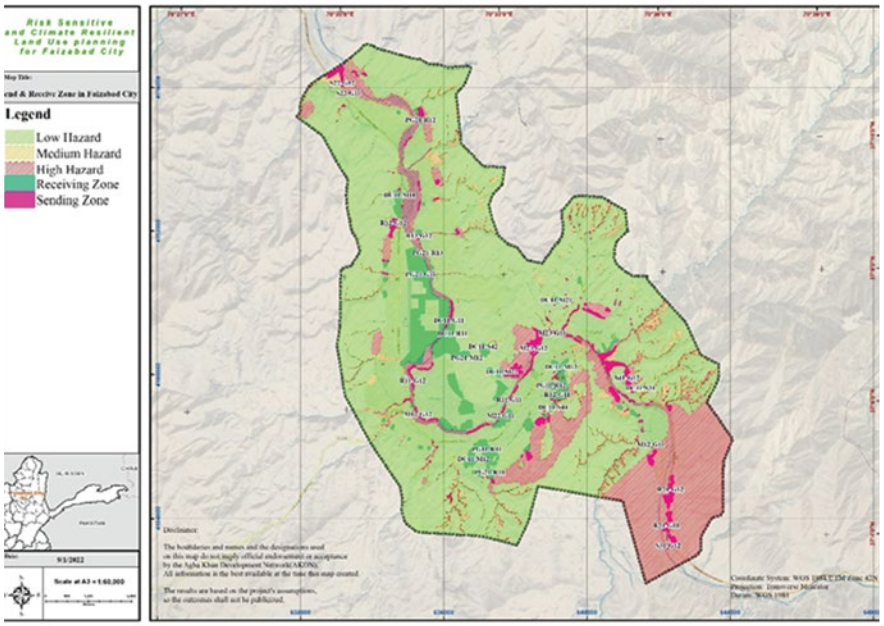
1- Knowing the socio-economic and legal features of the city.

2- evaluating the financial documents of the municipality (balance sheet and profit and loss statement) and calculating financial ratios such as debt and liquidity ratios, etc.

3- Forecasting economic, social and financial variables of the city. Finally, based on the collection of these studies, an assessment of the risk of lending to the municipality has been provided.

In the first section fiscal status of the municipality was analyzed based on the official documents published by the municipality and approved by the Turkish Court of Accounts (TCA). These analyses include comparing approved budget figures with actual values realized as well as financial ratios indicating debts, income and revenues. Hence, in section 2, variables including population and number of households, GDP, sectoral GDP and employment and inflation rate are analyzed and forecast. These forecasts were provided in three scenarios namely pessimistic, main, and optimistic.
Finally, the revenues, expenditures, balance and financial ratios of the metropolitan municipality were forecast. These forecasts were the basis of the credibility analysis of referred metropolitan municipalities.

RISK SENSITIVE AND CLIMATE RESILIENT LAND USE PLANNING FOR FAIZABAD CITY



Send and Receive zone in term of different hazard

FAIZABAD , **AFGHANISTAN**

Name of Legal Entity Completing the Work :
Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: July 2021-July2022

Project Client: Aga Khan Agency for Habitat

Project Description:

Given that Afghanistan is vulnerable to several natural disasters, including earthquakes, floods, and the impacts of climate change, the lessons learned from these experiences should be applied to more cities and villages. Preparing resilient master plan and zoning development plan are the most important tools for reducing risk, increasing resilience, and promoting sustainable development. With these techniques, city planners can act more rationally to mitigate the effects of natural disasters. Zoning plans are usually prepared with a risk-sensitive approach, but in this plan, in addition, climate resilience is one of the key features. The objective of this study was:

- Development of the multi-hazard map of city based on detailed hazard (geo, hydro, human) assessment using state of art modelling and scientific proved approaches for the city (Macro level and Micro level at city district level)
- Multi-hazard vulnerability and risk assessment (as per the hazard) based on modelling and state of the art methodology for the city (Macro level and Micro level at city district level)
- Risk sensitive land use plan based on Geo hazard (seismic, rapture, rockfall, landslide, etc), Hydro meteorological hazard (flood, drought, rockfall, landslide, urban heat, etc) and human made hazards (fire, biological, etc.) as well as climate change phenomena.
- Development of zoning plan and regulations.
- Develop the resilience master plan of the city.

RETROFITTING OF OSMANIYE MUNICIPALITY BUILDING

OSMANIYE, **TURKEY**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Turkey

Project Consultancy Duration: February 2023 - June 2023

Project Clients: Osmaniye Municipality

Project Description:

This building was constructed in 2016 and is composed of 4 blocks. There are five stories above the ground level and one basement. The construction area of the building is about 22,000 sqm.
The building was surveyed extensively by experts from Protek-Yapi Engineering Consultancy immediately after the 2023 Turkey-Syria earthquake. After conducting a comprehensive visual assessment, the following actions were done within three months after the earthquake as the use of this building was essential to organize the situation and activities of the city after the earthquake:

- One of the shear walls lightly damaged during the earthquake, was retrofitted by FRP.
- The concrete slab surrounding the above-mentioned shear wall, was retrofitted by FRP.
- For the nonstructural walls in several locations throughout the building with some minor cracks (0.5 to 5 mm) the resin epoxy was injected.
- For the wider cracks the mortar epoxy was used.
- The partitions, which were almost damaged, were demolished and rebuilt with additional supporting steel wall posts and the same material.
- False ceiling supports (which are mostly broken and/or damaged) were repaired using lateral bracing.
- The cover of the stair concrete slabs damaged after the earthquake, has been repaired using mortar grout.
- The stairs were retrofitted with steel columns and supporting beams. Also, these retrofitting columns were covered with architectural aluminum cladding.
- The front walls for the elevators were supported with steel plates and the surrounding shear walls were retrofitted by FRP.

ANALYTICS IN SUPPORT OF A STRATEGY FOR SEISMIC RISK REDUCTION OF PUBLIC BUILDINGS

MYANMAR

Project Consultancy Contract Value: 340,000 USD

Name of Legal Entity Completing the Work:

The Joint Venture of Protek-Yapi Engineering Co. and VESTA ECC.

Country: Myanmar

Date of start and completion: Jan. 2021- Contract was terminated because of coup.

Project Client: World Bank

Project Description:

Myanmar as one of the largest countries in Southeast Asia is one of the world's most disaster-prone countries exposed to multiple hazards, including floods, cyclones, earthquake and landslides. Despite the existence of the risks due to potential hazards, the critical infrastructure and buildings in Myanmar are quite vulnerable and lack of public awareness has led to low demand for buildings with proper features.
The main objective of the project was to conduct a seismic vulnerability assessment and supplementary investigations to engage the World Bank (WB) to support the Yangon City Development Committee (YCDC) in developing a seismic resilience strategy for public buildings in Yangon. In this regard, the project aimed to develop a risk reduction strategy to introduce effective intervention strategies and other options with the object of reducing the seismic vulnerability of public buildings and improve their safety and functionality.

Provided Services:

The main tasks of the project were as below:

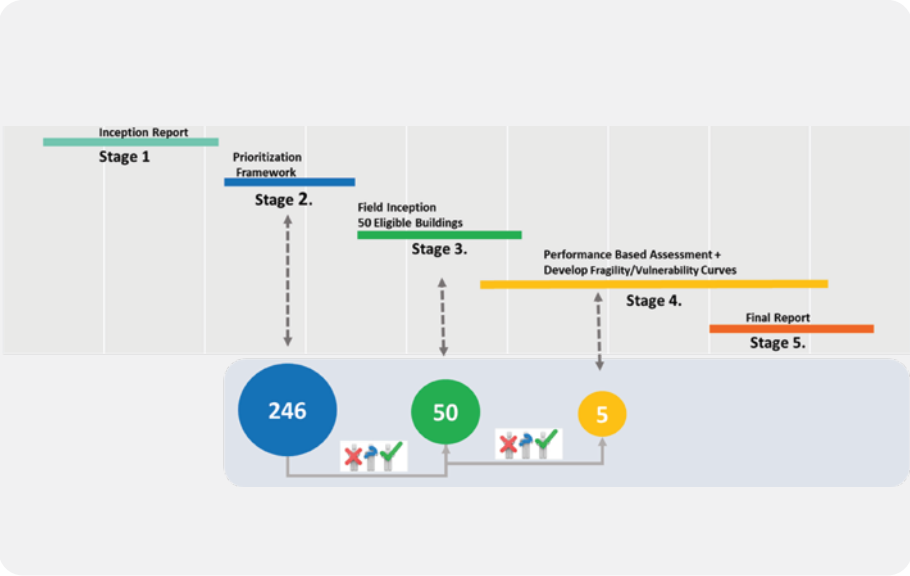
Task 1. Preparing the Inception report (literature review & desktop analysis)

Task 1 was focused on the available crucial information related to the objectives of the project. This information includes the existing data on the buildings of the city, census data, UN-HABITAT studies, existing datasets and other information on the physical characteristics of the public buildings, hazard datasets and maps, design documents, reports of recent inspections/building assessments, list of "Candidate" buildings, reference standards, codes and regulations, etc. Gaps in the data were identified in this step, and a needs assessment analysis was conducted.

Deliverable:

In this report, in addition to the detailed approaches and methodologies for the implementation of the tasks, the outcomes of the comprehensive literature review on the natural hazards, disaster risk reduction policies and recommendations, urban resiliency strategies, profiles of the building data of Yangon city, list of "candidate buildings",

ANALYTICS IN SUPPORT OF A STRATEGY FOR SEISMIC RISK REDUCTION OF PUBLIC BUILDINGS



reference standards and codes, and most common building typologies have been provided. Finally, the project management plan in terms of project communication and organization, project schedule, change management, and documentation and meeting have been presented.

Task 2. Preparing the Inception report (literature review & desktop analysis)

In task 2, a methodology for a decision-making framework to recommend a list of potentially 'eligible' public buildings to be inspected in stage 3 is proposed.

Deliverable:

The proposed methodology and framework included a range of different criteria such as: geographic location of the area with respect to the active fault zones, potential risk of a major earthquake, population density and other demographic data, flood risks, building vulnerability, economic benefits, public service functionalities, role in the emergency management and response, and other factors as appropriate to select and priorities public facilities for further assessment. The prioritization has been developed based on providing a ranking and relative importance of each criterion. This methodology has been prepared not only for the prioritization of a set of buildings proposed under the project (i.e. 186 from YCDC and 60 from UN-Habitat) but also is a replicable approach to the prioritization of building assessments by YCDC in the future.

Task 3. Field inspections of a representative sample of 50 public buildings

Task 3 includes all activities related to the field inspections of 50 public buildings. In this regard, visual inspection, pre-survey data gathering, training for survey teams and government counterparts or nominated participants, quality assurance, and database development should be conducted.

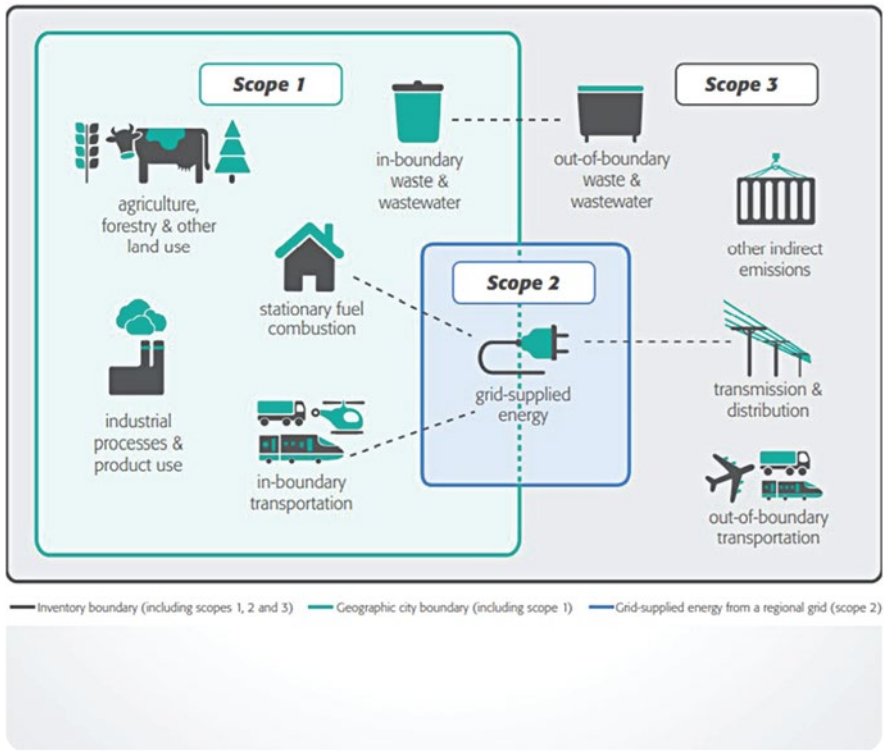
Task 4. Analytical work on the representative buildings

Task 1 was focused on the available crucial information related to the objectives of the project. This information includes the existing data on the buildings of the city, census data, UN-HABITAT studies, existing datasets and other information on the physical characteristics of the public buildings, hazard datasets and maps, design documents, reports of recent inspections/building assessments, list of "Candidate" buildings, reference standards, codes and regulations, etc. Gaps in the data were identified in this step, and a needs assessment analysis was conducted.

Task 5. Prioritization framework to inform sequencing of improvement of eligible public buildings

Finally, in task 5, options for Seismic Risk Reduction Strategies will be recommended to be implemented by YCDC. Moreover, intervention options will be recommended to be used in the sequencing of batches of buildings for improvement.

DEVELOPMENT OF CLIMATE ADAPTATION AND MITIGATION IMPLEMENTATION PROGRAMS FOR AKAH



AFGHANISTAN

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: July 2020- Dec. 2021

Project Client: Aga Khan Agency for Habitat

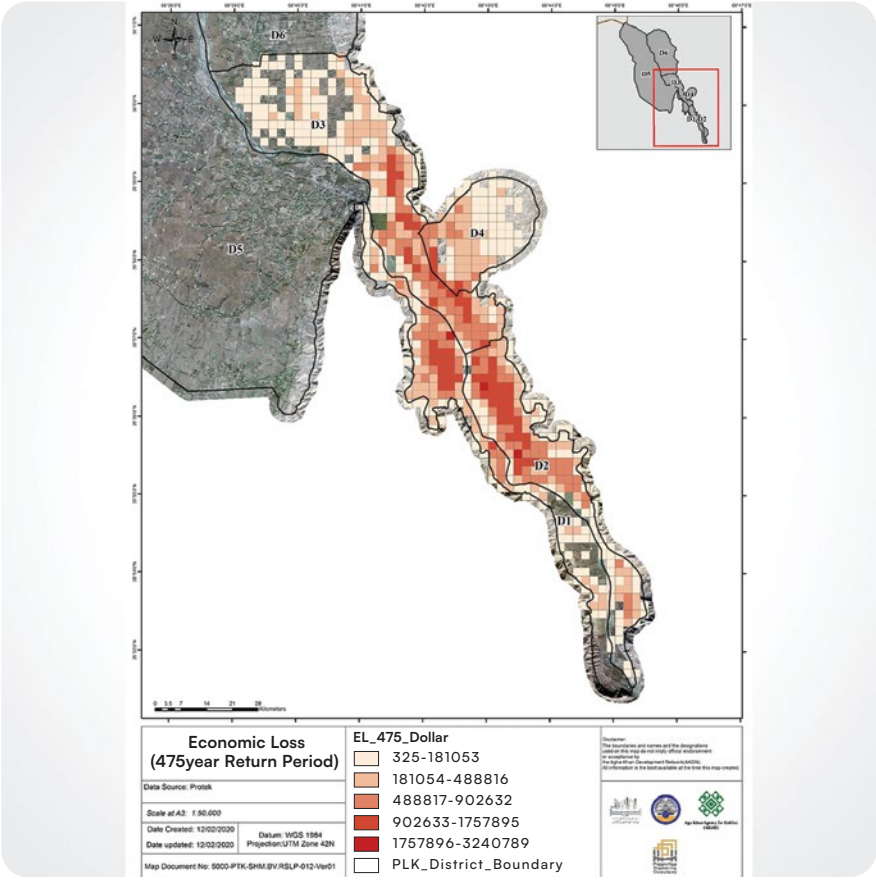
The output of this consultancy was to:

- Assess the capacity of the private sector to work Enable the AKAH GHG Policy enactment and mainstream carbon efficient operations and climate change resilience into major programs of AKAH including construction, habitat planning and development program (WASH, Integrated Solid Waste Management, etc.) which meet the context of Afghanistan
- Develop process and guidelines for green development and Climate Change Mitigation and Adaptation in AKAH's Habitat Planning, Safe & Resilient Construction and Development programs
- Development of implementation program (projects, activities, initiatives fit for the context of Afghanistan, have engagement of community and institutions) for AKAH-A
- Create Carbon Efficient, Green Guideline and Implementation Manual based on international institutions best practices to provide clear actions, tools, templates, processes in planning, design, construction, operation & maintenance, offsetting of new and incremental retrofitting and upgrade of existing building; and other AKAH development programs.

Services Provided:

- Develop a step-by-step guideline for climate resilient
- Develop a step-by-step guideline for green building
- Feasibility study and propose investment plan
- Develop implementation manual
- Software recommendation
- Develop green office instruction
- Make up concept note for attracting international donor

SEISMIC HAZARD AND BUILDING VULNERABILITY & RISK ASSESSMENT AND RISK SENSITIVE LAND USE PLANNING OF PUL-E-KHUMRI CITY, AFGHANISTAN



PUL-E-KHUMRI, **AFGHANISTAN**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Sub Consultant: VESTA ECC

Country: Afghanistan

Date of start and completion: June 2020- Nov. 2020

Project Clients: Aga Khan Agency for Habitat

Project Description:

This project focused on the seismic hazard, earthquake vulnerability and risk assessment, and risk sensitive land use planning of Pul-e-Khumri City, Afghanistan. Pul-e-Khumri is the capital and largest city of Baghlan Province and the second-largest city in northeastern Afghanistan. Pul-e-Khumri plays a critical role in national and regional interactions and, as a mother city, nourishes the settlements around it.
The output of this project helped to increase capacity of Afghanistan's urban community facing earthquake disasters and made it safe, resilient and sustainable. The direct beneficiaries of the project are approximately 24,586 households (building dwellings) with around 221000 populations in inhabiting an area of 4,373Ha and indirect benefit to more than 6 million people in the entire cities surrounding.

Provided Services:

The general objectives of this study were to use the state-of-the-art methodology and tools for:
1- Development of the seismic hazard map of Pul-e-Khumri City
2- Building stock vulnerability and risk assessment of Pul-e-Khumri City
3- Developing the resilience master plan of Pul-e-Khumri City
4- Risk sensitive land use plan based on seismic hazard, HVRA studies and remote sensing analysis of geological and hydro metrological studies (i.e. rock fall, landslide, flood, etc.,) of Pul-e-Khumri City

The outcomes of the project were designate to be obtained in two major components of:
A. Seismic Hazard, Building Vulnerability and Risk Assessment of Pul-e-Khumri City,
B. Risk Sensitive Land Use Planning (RSLUP) and Resiliency Program of Pul-e-Khumri City,

SEISMIC HAZARD AND BUILDING VULNERABILITY & RISK ASSESSMENT AND RISK SENSITIVE LAND USE PLANNING OF PUL-E-KHUMRI CITY, AFGHANISTAN

Provided Services:

- Seismic hazard assessment
- Flood, landslide, fire and rock fall hazard assessments
- Vulnerability assessment of building stock
- Economic and Human loss analysis
- Development of knowledge base
- Risk sensitive land use planning (RSLUP)
- Development of macro level planning
- Development of zoning plans
- Development of resiliency master plan
- Development of by law
- Provision of Action plans, Implementation Program
- Holding capacity-building sessions (train of trainers)

The main outcomes of the project are:

1- Seismic hazard assessment considering different hazard levels and possible scenarios along with development seismic hazard map for different return periods.

2- Vulnerability analysis of the buildings for different Seismic hazard levels and earthquake scenarios.

3- Economic loss analysis based on the building for different seismic hazard levels and earthquake scenarios.

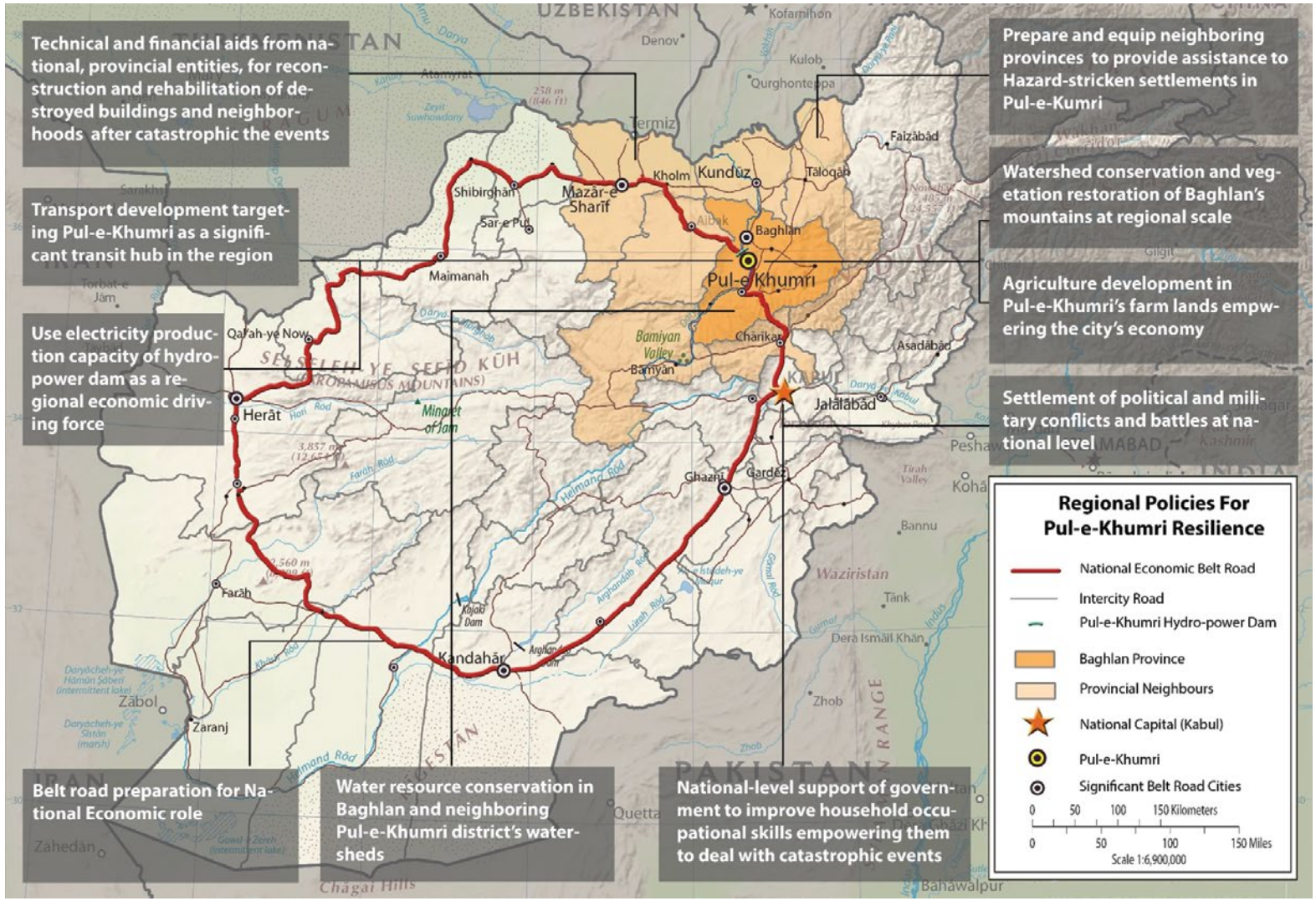
4- Human loss analysis based on the building for different seismic hazard levels and earthquake scenarios.

5- Risk sensitive land use planning (RSLUP) consist of macro level planning and zoning plans of Pul-e-Khumri City.

6- Development of resiliency master plan of Pul-e-Khumri City

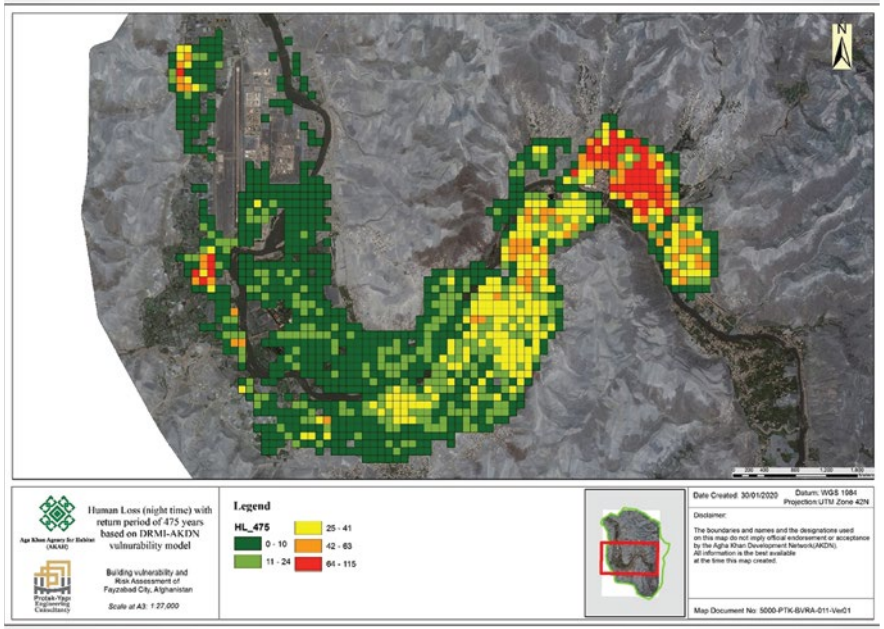
7- Development of Road Map, Action Plan and Implementation program

SEISMIC HAZARD AND BUILDING VULNERABILITY & RISK ASSESSMENT AND RISK SENSITIVE LAND USE PLANNING OF PUL-E-KHUMRI CITY, AFGHANISTAN



PUL-E-KHUMRI, **AFGHANISTAN**

BUILDING VULNERABILITY AND RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN



Human Loss (night time) with return period of 475 years based on DRMI - AKDN vulnerability model

FAIZABAD, **AFGHANISTAN**

Name of Legal Entity Completing the Work: Protek-Yapi Engineering Co.

Country: Afghanistan

Date of start and completion: Aug. 2019-Dec. 2019

Project Client: Aga Khan Agency for Habitat

Project Description:

AKAH signed a contract with Protek Engineering Consulting Company for delivering building vulnerability and risk assessment of the Faizabad City based on appropriate sampling of the number of building stock in city in different sub-districts of the city. The higher objective of this study was to develop the “building vulnerability and risk assessment of Faizabad city using state of the art methodology and tools for risk sensitive land use plan and contingency planning”.
The Specific Objective of the Project was Building Vulnerability Assessment of Faizabad Province with the objective of obtaining the expected physical damages/human and economic losses of the study areas due to the selected and verified SHM studies provided by AKAH Afghanistan. The project was also expected to enhance the institutional capacity building both for INGOs and Government of Afghanistan and provincial government authorities.

Main Objectives:

The main objectives of this project can be summarized as below:

1- Verification and reviewing of existing SHM and other hazard studies
2- Vulnerability analysis of the buildings for all possible seismic hazard levels
3- Risk assessment and providing risk maps for the study area of the scope in Faizabad City
4- Human and economic loss assessment for Faizabad City considering all possible seismic hazard levels
5- Mainstreaming Disaster Risk Reduction (DRR) in urban resiliency for Faizabad city along with recommendations for resilient Faizabad City

BUILDING VULNERABILITY AND RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN

Conducted Activities

In order to achieve the aforementioned goals, following list of activities were planed and conducted.

Reviewing, Verification and Endorsement of Micro-zonation Studies

- Review of micro-zonation studies
- Verification of SHM studies using OpenQuake platform

Reviewing of Inventory Data and production of 3D model of the Faizabad City

- Granting the needed Satellite images
- Developing the Digital Elevation Models (DEM) and Digital Surface Models (DSM)

Data Collection and Composition

- Verification of collected data and implementation of the data into Database
- Miission to Faizabad for data verification and stakeholders' engagement
- Providing training for engineers from AKAH to collect the data on the ground
- Data collection by local engineers
- Determining the Homogeneous Zones
- Reviewing the code or common building practice

Seismic Vulnerability and Risk Assessment

- Analysis of existing buildings' data
- Identifying common building taxonomy and typology
- Building vulnerability analysis including collection or adaption of fragility / vulnerability functions and preparing the OpenQuake platform for the physical building vulnerability and building loss analysis
- Developing the GIS-based built environment database including semi-automated and manual building extraction and visual building stock identification
- Conducting human and economic loss assessment
- Conducting building risk assessment and providing risk/loss maps for the expected buildings losses

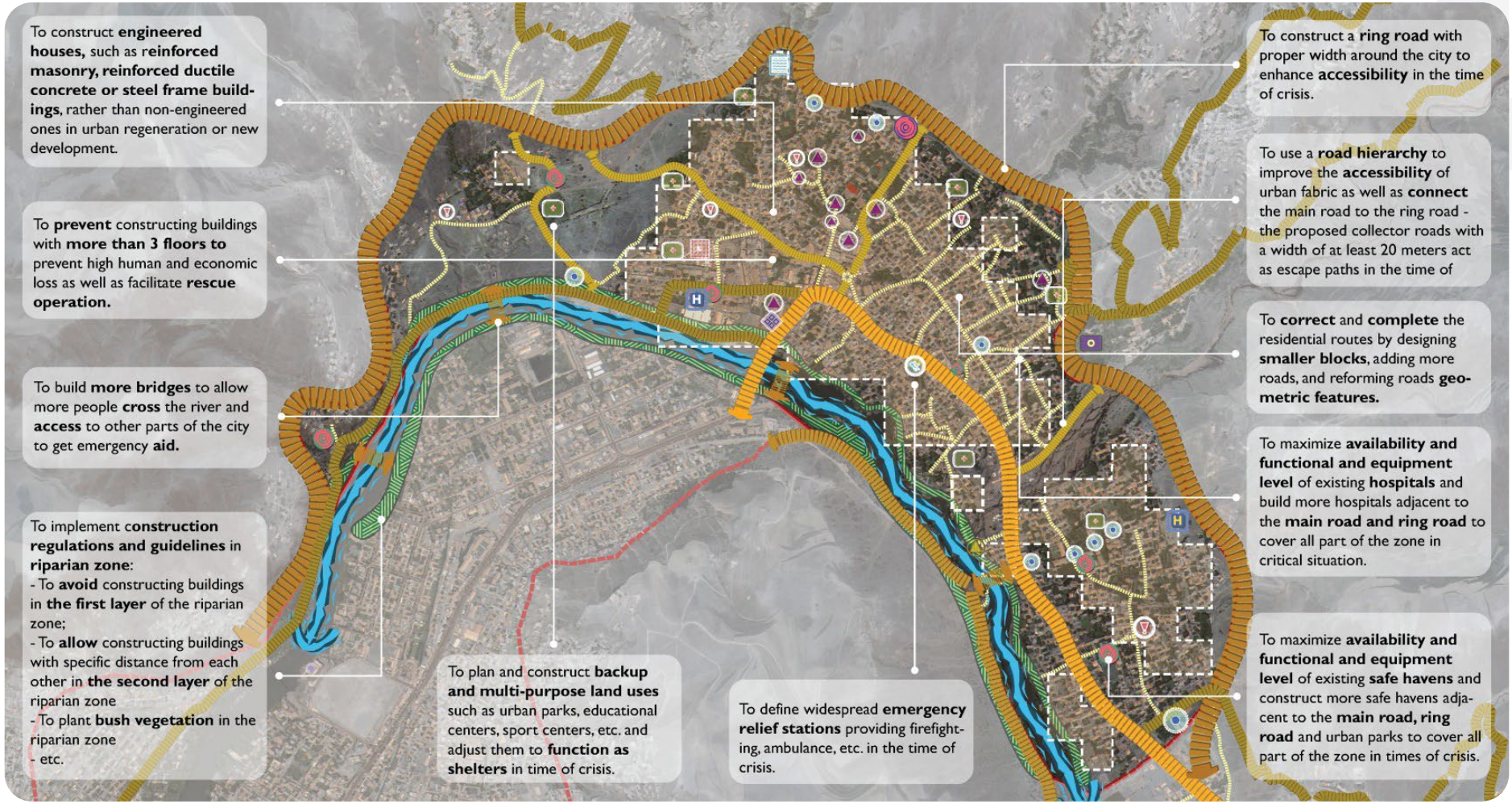
Urban Resiliency of Faizabad City

- Contingency planning
- Risk-sensitive land use planning

Deliverables and Summary of Outputs

1. **Inception Report**
2. **SHM Validation Report**
3. **Data Collection Report**
4. **Human and Economic Loss Assessment and Urban Resiliency Report**
5. **Building Risk Analysis and Damage Report**
6. **Building Data and Taxonomy Report**
7. **Consolidated Report**
8. **Way Forward and Recommendations Report**

BUILDING VULNERABILITY AND RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN



FAIZABAD, **AFGHANISTAN**

SEISMIC RISK ASSESSMENT AND PRIORITIZATION OF +6000 STRUCTURES

PAKISTAN, AFGHANISTAN,TAJIKISTAN, KYRGYZSTAN,INDIA

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Countries: Pakistan, Afghanistan, Tajikistan, Kyrgyzstan, India

Project Consultancy Duration: March 2015 —Oct. 2017

Project Client: Aga Khan Development Network (AKDN)

Project Description:

AKDN agencies have more than 6000 facilities and infrastructures in Afghanistan, India, Pakistan, and Tajikistan. The facilities include schools, hospitals, health centers, Jamat-khanas, offices, warehouses, residential units, etc. These infrastructures were located in high seismic-prone areas, thus there was an urgent need to assess the structural and non-structural safety of these facilities. The study was conducted based on a request to prioritize the most critical facilities that required additional structural and non-structural audits. The project has been implemented in three partially overlapping phases.

Deliverables for the project were as follows:

- **Planning & Analysis**
  - Reviewing existing literature on the multi-hazard vulnerability of selected countries
  - Strategy planning and budgeting
  - Facilitating peer reviews of course design and material
- **Research**
  - Information collection, document review, and customized course design and education/learning kits
- **Development**
  - Developed process and methodology
- **Documentation**
  - Inception Report
  - Proposed Methodology
  - Finalizing the methodology post peer review
  - Guidelines and manual
  - Awareness kits for decision-makers
  - Training material
- **Document review & revision**
  - Formal reviews and revisions of produced documents
- **Administration and project management**
  - Managing and administering project performance, logistics, accountabilities, and reporting

STRUCTURAL VULNERABILITY ASSESSMENT & DESIGN OF 256 PUBLIC STRUCTURES

PAKISTAN, AFGHANISTAN, TAJIKISTAN

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Countries: Afghanistan, Pakistan, Tajikistan

Project Consultancy Duration: 2015-2016

Project Client: Aga Khan Development Network (AKDN)

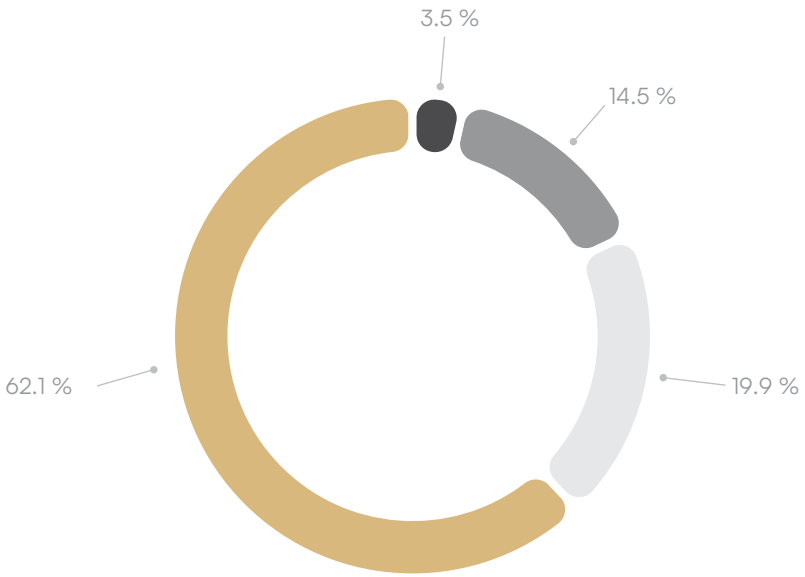
Project Description:

The goal of the project was to strengthen the relevant disaster management capabilities for the faculties of the Aga Khan Development Network (AKDN) in Central and South Asia. The need for risk reduction activities in the region was as follows:

- Seismic hazard assessment
- Disaster Risk Reduction
- Emergency Response Capacity Building

The scope of services consisted of feasibility studies and technical assistance for retrofitting and rehabilitation of selected 256 most critical AKDN Structures in Afghanistan, Pakistan, and Tajikistan and developing designs for retrofitting structures found feasible

STRUCTURAL VULNERABILITY ASSESSMENT & DESIGN OF 256 PUBLIC STRUCTURES



- Religious & E ducational Centers, 159 structur es, 30,747.95 m2
- School Buildings, 9 structur es, 2,826.33 m2
- Healthcar e Buildings, 37 structur es, 190000 m2
- Administr ative & Office Buildings, 51 structur es, 51,166.20 m2

within the scope of the contract. The main components of the audit were as follows:

- Surveying and geotechnical analysis
- Data Collection
- Cost-benefit analysis of recommended actions
- Final development and modeling of the retrofitting designs
- Assessment and verification of the actual status of the structure
- Preliminary analysis for retrofitting and rehabilitation of the structure
- Recommending mitigation of non-structural components, etc.
- Feasibility and appropriateness for retrofit measures, considering conventional and innovative techniques, and developing long-term sector plans

Provided Services for each building were as follows:

- Assessment and Summary Report
- Preliminary Design Report
- Report for Decision Makers
- Final Design Report
- Complete MEP and Non-Structural Designs
- BOQs and Cost Estimates, Bidding Documents, Technical Specifications and Details

At the end of the project, a capacity-building program was done.

- Complete Structural Retrofitting Designs and Complete Architectural Renovation Designs for selected options.

SPECIAL SERVICES AGREEMENT FOR DEVELOPMENT OF CONSTRUCTION LEVEL DRAWINGS OF DASHT-E-DEHKHAW HOUSING PROJECT

DASHT-E-DEHKHAW, **AFGHANISTAN**

Name of Legal Entity Completing the Work :

The Joint Venture of Protek Yapi Engineering Co. and VESTA ECC

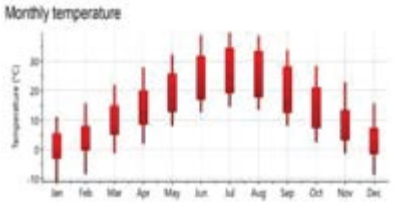
Country: Afghanistan

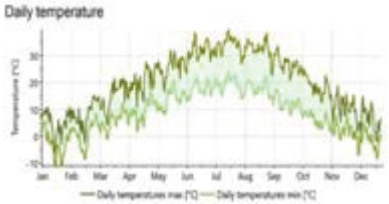
Project Consultancy Duration: 7 months

Project Client: AKAH-A (Age Khan Agency for Habitat)

Project Description:

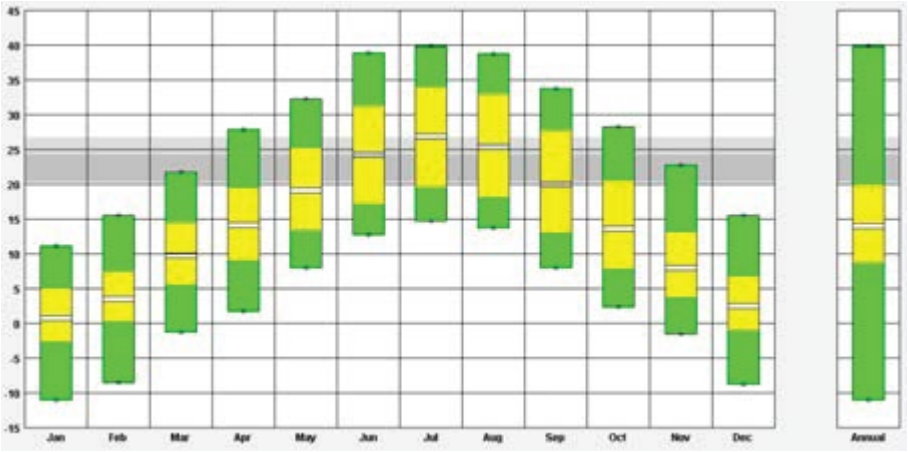
As the relocation planning (design development) for Dehkhaw village had been fulfilled, a “Detailed Area Design for the Dasht-e-Dehkhaw (DADD)” and “Architecture Documents for Construction Level (ADCL)” was prepared by Protek Yapi ECC so that AKAH be able to start the construction of the village and preparing safe and affordable housing and living environment for those people who were affected by a derbies flood on 2017 and lost their houses.



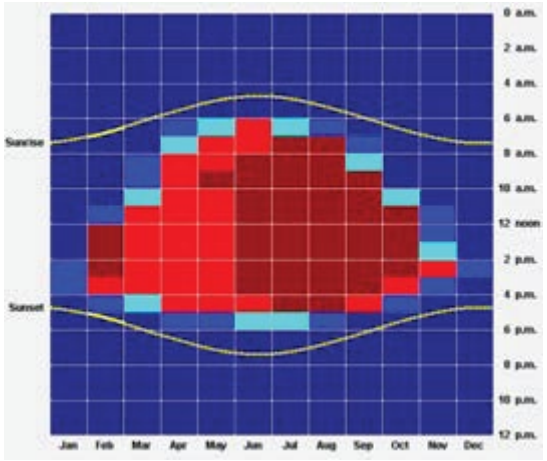


SPECIAL SERVICES AGREEMENT FOR DEVELOPMENT OF CONSTRUCTION LEVEL DRAWINGS OF DASHT-E-DEHKHAW HOUSING PROJECT

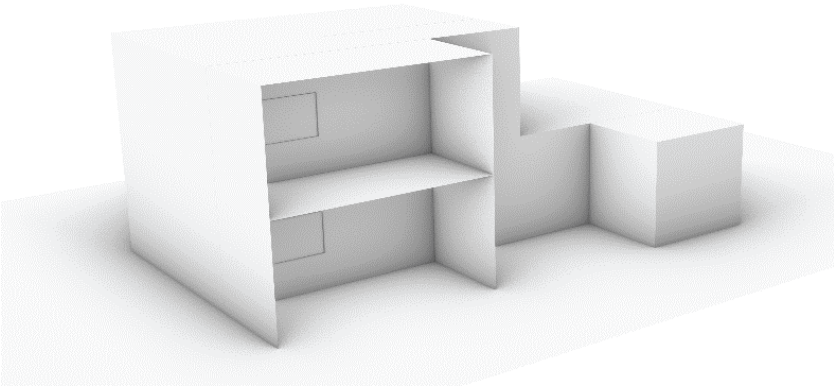
TEMPERATURE RANGE OF DASHT-E-DEHKHAW SITE LOCATION (°C)



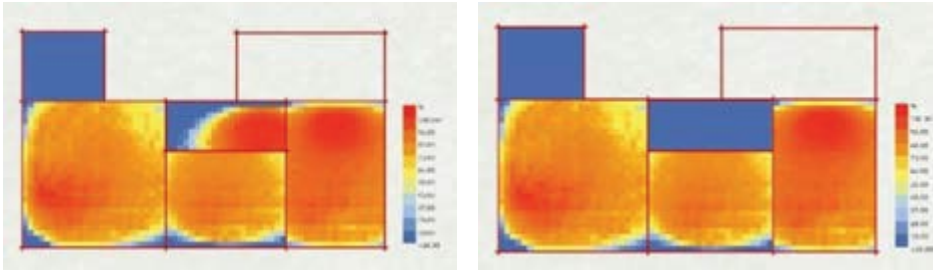
DIRECT SOLAR RADIATION



3D MODELL



SAMPLE FLOOR UDI 100-2000 LUX



SPECIAL SERVICES AGREEMENT FOR DEVELOPMENT OF CONSTRUCTION LEVEL DRAWINGS OF DASHT-E-DEHKHAW HOUSING PROJECT

Outputs

The outputs of the assignment were:

• Detailed Area Design for Dasht-e-Dehkhaw at scale 1:500 to 1:100 in which,

- Exact amount of soil excavation and embankments was determined with dimension (width and height) based on topography survey available for site
- Road's slope and the in-detail surface water drainage system were designed
- Height level of the entrances of the house allied to the roads based on site topography and plan was determined
- Infrastructure network in-detail design and construction level drawings were prepared including water, sewage system, energy/power, etc. (details of networks, excavation depth, pipes, connectors, access location, equipment, substation location, etc.)
- Rural furniture was designed in details (pattern, materials, size, color, location, etc.)
- Public spaces were designed including Entrances, Landmarks (design, material, location, color, etc.) Shading, Floor cover (Pattern, Color, materials), Determination of Performance and Spatial Territories, landscape design.
- Mitigation measures were designed to reduce the natural hazards based on the remote sensing modeling
- Lighting and wiring details were provided including (systems, materials, color, location, etc.)
- Accurate and in-detail BOQ were prepared based on list of approved material for all required details
- Tender documents were generated including (RFP, Specifications, List of Approved Material, Contract document as per FIDIC standards, etc.)

• Detailed documents for construction level architecture (1:100 to 1:10) in which, detailed design for construction level drawing and in-detail BoQ and specifications (tender documents) of infrastructure including water supply system, sewage system, (entire scheme from household to pipeline to filtration, etc.), energy system, etc. were prepared as follows:

- A detailed review of national and international bylaws and standards was conducted
- Geotechnical and topographic studies for its implementation for the housing scope of work were done
- A whole building life cycle assessment was conducted to reduce embodied carbon
- An energy modeling was utilized to estimate a building's energy use.
- Structural systems for energy efficiency were optimized.
- Building services in rural areas for minimum maintenance and fewer energy consumptions was optimized
- The design was based on using low energy materials, fixtures, and equipment, water and electricity saving devices, and reduce waste through source reduction and recycling
- Structural, electrical, mechanical and plumbing design of houses were prepared for construction level
- Health facilities, including water system, rainwater collection system, waste collection, and disposal system were designed
- Tender documents were generated including (RFP, Specifications, List of Approved Material, Contract document as per FIDIC standards, etc.)

INTEGRATED HABITAT ASSESSMENT AND PLANNING FOR RURAL HOUSING DESIGN FOR DASHT-E-DEHKHAW VILLAGE IN DARWAZ, AFGHANISTAN

DASHT-E-DEHKHAW, **AFGHANISTAN**

Name of Legal Entity Completing the Work : Protek-Yapi Engineering Co.

Country: Afghanistan

Project Consultancy Duration: 4 months (2019)

Project Clients: Aga Khan Agency for Habitat

Project Description:

The objective of this project was to develop habitat planning and affordable rural housing models to set for the mountainous area of the newly identified land plot based on Habitat Assessment.
The first part of the project aimed to prepare an appropriate site plan relocation for the Dehkhaw village. Hazardous site conditions, as determined by Aga Khan Agency for Habitat (AKAH) risk studies were determined that the best choice was to relocate the village. This project developed alternatives for site planning of Dasht-e-Dehkhaw according to the Habitat Planning (HP) framework prepared by AKAH and the “Green Planning” approach. It is worth mentioning that the green planning approach includes several components such as risk, environment, climate, culture, and economy. In this process, in-depth studies on “socio-economic priorities” and “physical and land use priorities’ were carried out to promote the HP framework by reviewing past studies.
Finally, feasibility analysis and implementation considerations were provided including scheduling, cost-benefit analysis, and monitoring framework.

Provided Services:

Habitat Planning Based on Habitat Assessment for Dasht-e-Dehkhaw (2.8 Hectare)
Developing Affordable Rural Housing Model (Plain and Mountainous Region)
Developing Implementation Methodology and Tools for Habitat Assessment and Planning of AKAH Framework.

INTEGRATED HABITAT ASSESSMENT AND PLANNING FOR RURAL HOUSING DESIGN FOR DASHT-E-DEHKHAW VILLAGE IN DARWAZ, AFGHANISTAN

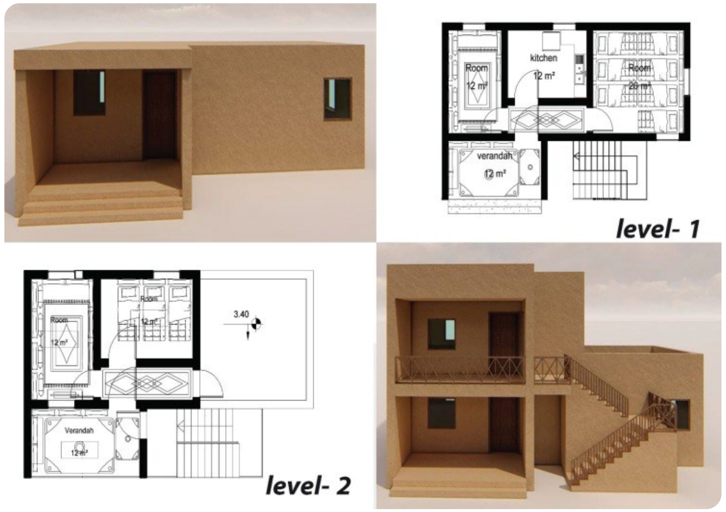
MITIGATION FOR FLOOD

3D MODELLING

LAND USE MAP

Legend					
Item code	Items Description / Specification (Detail)	Quantity required	unit cost Afs.	color	Total Estimat
1	Stone pavement				7813500
2	Drainage				846400
3	Outdoor solar street light				266000
4	bench				48000
5	Trash bin				115500
6	Stone flower bed				148000
7	Productive soil for planting				676400
8	Skilled labor	120	1200		144000
9	Unskilled labor	120	500		60000
Sub Total					10067800
10	Remedical building				292230
11	Commercial buildings				591336
12	Religious building(Jamaat khan)				292230
13	Educational building				292230
14	Council building				292230
Sub Total					1760256

RURAL HOUSING MODEL



Training
Courses

Training & **Education**

At Protek-Yapi, we recognize that continuous training for employees, partners, and customers plays a critical role in ensuring the highest quality of service and project execution. Our training programs are designed to enhance expertise, improve efficiency, and drive overall project success.

Our Approach to Training

- Ongoing Training: We conduct structured training sessions before, during, and after project implementation to ensure that all key stakeholders are well-equipped with the necessary knowledge and skills.

- Targeted Participants: Our training programs focus on engineers, masons, community facilitators, and other key personnel, ensuring that those in the critical path of project success are adequately prepared.

- Knowledge Sharing & Best Practices: Training sessions provide a platform for participants to share experiences, case studies, and best practices from their respective regions, fostering a collaborative learning environment.

Capacity Building as a Core Component

Protek-Yapi integrates capacity-building initiatives into its projects, ensuring sustainable impact and long-term success. The table below outlines key projects where capacity building played a crucial role, with three cases explained in detail in the following pages

No.	Project
1	Local Long-Term Agreements for Engineering Services in North-West Syria
2	Development of an Institutional Plan and Organizational Chart for Gaziantep Metropolitan Municipality in Türkiye
3	Development of a Strategic Plan 2025-2029 for Gaziantep Metropolitan Municipality in TURKIYE
4	Osmaniye Municipality Post-Disaster Planning Works in Turkey
5	Resilient Regeneration of Hillside Organic Settlements in Kabul (Phase II), Afghanistan

Training & **Education**

No.	Project
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CONDUCTED TRAININGS AND CAPACITY BUILDING FOR RAJUK
VULNERABILITY ASSESSMENT AND PRIORITIZED INVESTMENT
2019

DHAKA **BANGLADESH**

Training Description

As part of contract "Vulnerability Assessment and Prioritized Investment Plan for Critical Assets in Dhaka", Protek-Yapi and the partners will developed and train RAJUK's related specialists on a well-illustrated and structured step-by—step approach on Rapid visual assessment process, Preliminary engineering analysis, and detailed engineering analysis to show how to utilize technical assessments, interpret results and integrate disaster risk reduction parameters and objectives into urban resiliency. A total of 8 capacity development trainings have been conducted on following topics:

1. Training on Rapid Vulnerability Assessment
2. Training on Hazard and Risk Assessment
3. Training on earthquake resistant rural construction
4. Training on Detailed Engineering Analysis
5. Training on urban flood management and disaster risk mitigation
6. Training on structural and non-structural hazard mitigation in urban lifelines and sensitive critical infrastructure building and high rises
7. Training on Vulnerability Assessment and Long term investment program development for critical infrastructure.
8. Training on applying resiliency in vernacular architecture

CONDUCTED TRAININGS AND CAPACITY BUILDING FOR RAJUK
RISK-SENSETIVE LAND USE PLANNING
2019

DHAKA **BANGLADESH**

Training Description

As part of contract "Development of Risk Sensitive Land Use Planning practice", Protek-Yapi delivered their educational services regarding risk-sensitive Planning on the following subjects:

1. To Development of How-to guides with step-by-step approach and ample illustrations and examples
2. Develop strategic policies and proposals related to resilient and livable towns
3. To Prepare Action-oriented guidelines and tools focusing on priority areas
4. Conduct workshops and sharing knowledge activities with relevant stakeholders

The engagement shall include various validation tools such as surveys, workshops, face-to-face interviews of key informants, SWOC (Strength-Weaknesses-Opportunities-Challenges) exercises, targeted scientific seminars.

CONDUCTED TRAININGS AND CAPACITY BUILDING FOR PROGRAM FOR AKAH HABITAT PLANNING FOR RURAL HOUSING

2020

KABUL **AFGHANISTAN**

Training Description

As part of contract “Habitat Planning for Rural Housing” Protek-Yapi developed the training program aiming to train the urban planner and engineers active in field of rural planning and design on the following topics:

1. Training on Habitat Planning Methodology
2. Training on AKAH HP Framework for mountainous area
3. Training on rural housing design
4. Training on implementation concerns in relocation plans
5. Training on participatory methods in rural design

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