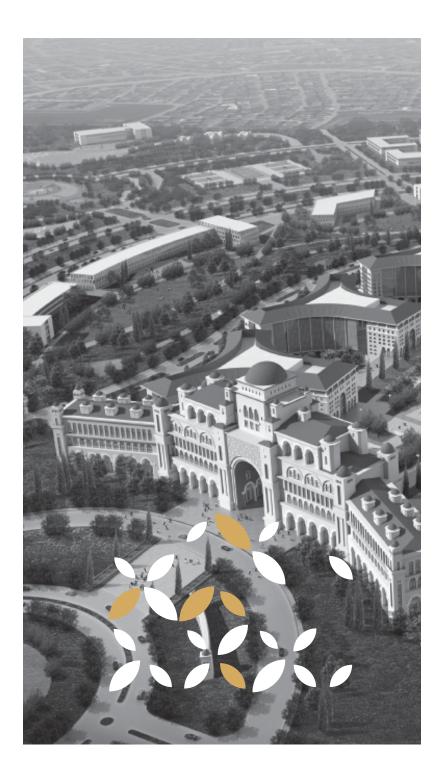






Profile **Content**

- About Protek
- Our Organization
- Clients & Partners
- 8 Area Of Expertise
- Outstanding Projects
- Completed Projects
- Ongoing Projects
- Training Courses
- Contact Us



About Protek-Yapi

Protek-Yapi Engineering Consultancy Corporation (Protek-Yapi), established in 2008, is an engineering firm dedicated to bettering people's lives. Our mission is to use engineering solutions to solve the world's most pressing challenges in the pursuit of a better life. Protek-Yapi is a pioneering global engineering and management consultancy firm, based in Turkey, providing consultancy, end to end business and engineering solutions to global corporations in the public and private sectors. Protek-Yapi provides tailored solutions for challenges the world facing today especially in the area of Structural Design and Rehabilitation, Hazard Risk and Vulnerability Assessment, Resilient Cities, Sustainable and Smart Cities, Climate Change Adaptation and Mitigation, Awareness Rising and Capacity Development, Financial Services and Supervision.





Worldwide Footprint



6 International Offices (Turkey, Iran, Afghanistan, Pakistan, Tajikistan, Bangladesh ...)

400+ Personnel

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

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

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

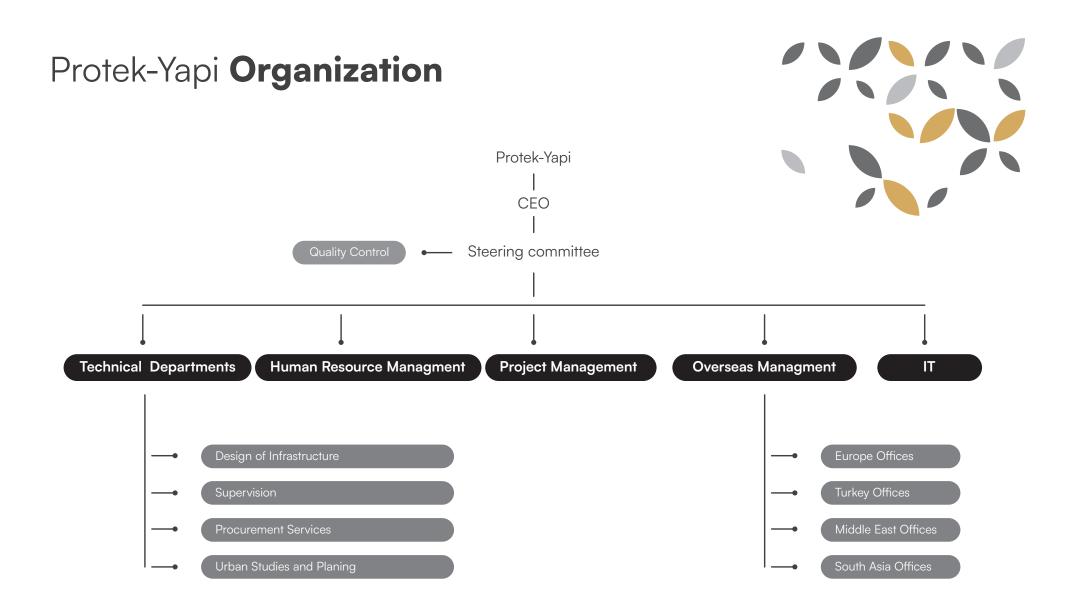
5.7+ M sqm of Buildings Rapid Visual Assessment

3+ M sqm of Preliminary & Detailed Engineering Assessment

10+ Guidelines/ Manuals/ Toolkits

20+ Feasibility Study and Infrastructures Financing Projects





Our **Clients**

Across The Nations

- Municipality of Istanbul
- Ministry of Environment, Urbanisation & Climate Change, Turkey
- Ministry of Health, Turkey
- Ministry of Education, Turkey

International Organizations

- World Bank
- Focus Humanitarian Assistance (FOCUS)
- Disaster Risk Management Initiative (DRMI)
- Aga Khan Development Network (AKDN)
- Aga Khan Health Services (AKHS)
- Aga Khan Agency for Habitat (AKAH)
- Aga Khan Educational Services (AKES)
- UNDP
- UN-HABITAT
- YCDC





WORLD BANK









AGHA KHAN



















Our **Partners**



International

- EMRE AROLAT ARCHITECTURE
- NKY Architects and Engineers
- TIMA Engineering
- PBK Architects
- VESTA ECC
- Temelsu International Engineering Services
- MEGA Engineering Consulting













Area of **Expertise**

Structural Design & Rehabilitation

One of our expertise is engineering services especially in structural design, retrofitting, rehabilitation, and supervision activities. Our main approach in structural assessment is conducting step by step analysis from Rapid Visual Assessment (RVA) to Preliminary Engineering Assessment (PEA), and then to Detailed Engineering Assessment (DEA). In recent years, we move forward the structural rehabilitation efforts to the "green retrofitting" in order to cover the energy efficiency principles.

Resilient Cities

Due to the effects of climate change and the inappropriate form of settlements expansion, a considerable share of the people resides in the hazard-prone area with minimum capacities to cope with them. We offer our resilience services in terms of development of risk sensitive land use planning, mitigation action design and implementation, development of resilient master plans and etc. We have recently developed an innovative tool to assess the resilience index of the cities by which, proposing the solution would be more efficient.

Climate Change Adaptation & mitigation

In line with Paris Agreement, Sustainable Development Goals, and COP 26, we offer our climate change adaptation and mitigation services in which, the nature-based solution, capacity development, low carbon development, energy efficient design, greenhouse gases reduction in transportation, buildings, industry, agriculture, and energy generation are our main activities. Besides, developing guidelines and manuals for realizing that is our expertise.

Awareness Rising & Capacity Development

We believe that training for employees and customers have a significant impact on the quality of service/project. We hold continuous training before, during and after the implementation of the project. Trainings are held to educate the employees, partners, customers; basically anyone who is in the critical path of the project success.

Hazard, Risk, & Vulnerability Assessment

By using the most recent methods, applications, and tools, one of our areas of expertise is to assess the hazard, risk and vulnerability. To this aim, we conduct different methods such as using field works and conducting borehole tests (CPT, SPT, SCPT) for seismic hazards, using the opportunities for avalanche, rockfall, landslide, subsidence, and etc. Besides that, we conduct hazard and risk assessment for flood and climatic events as well as multi hazard assessment and micro-zonation

Sustainable & Smart Cities

Sustainability is not a preference anymore, but a necessity. We offer our various services in terms of development of master plans, strategic plans, policy documents, detailed area plans as well as sectoral plans such as sustainable urban mobility plan (SUMP), transit-oriented development (TOD), regeneration and urban transformation plan (UTP) all of which are based on the sustainability and smart city principles.

Financial & Municipal Services

We believe that without ensuring the viability of the development intervention, sustainability won't be realized. In this regard, we have developed our financial department in the past 10 years to carry out different services such as cost-estimation, feasibility study, private sector capacity assessment, development of investment plans, and municipality financial service. We offer our financial services to the clients in all assignments even it is not mentioned in the ToR.

Supervision

Supervisory services are provided in compliance with provisions of contract. Our regular presence at the construction site is a guarantee of control over the executed works. Our engineers are monitor dynamic plans and report the investor on the conditions and indicate any eventual problems. They are actively involved in addressing any current problems of technical nature at the site.

During the construction, if required (due to omission and/or incorrectness of the detailed design and relevant project documentation), we will adjust of design solutions, adjustment or amendment of design and preparation and approval of working documents, constructions volumes and other relevant changes to the contract.



Portfolio Management for Infrastructure Projects

implementing the infrastructure projects such as drinking water, waste water, road network, and treatment system within the existing cities require a systematic management that can optimize using resources in one side, and make the citizens aware of the process in another side without any obstacle for routine life of the city. We provide this sophidticsted system for the municipalities with carefully observing the HSE and social and environmental consideration. Implementing the water and wastewater network for more than 12000 hr area in Osmaniye municipality in Turkiye is one of our successful experiences in this regard.

Related **Services**

Resilience

- Hazard Assessment (Geological, Hydrological, Meteorological)
- Vulnerability and Risk Assessment
- Exposure Analysis
- Structural Design/ Rehabilitation/ Retrofitting/ Green Retrofitting
- Risk Sensitive Land Use Planning
- Resilience Master Plan
- Critical Facilities Analysis

Financial Services

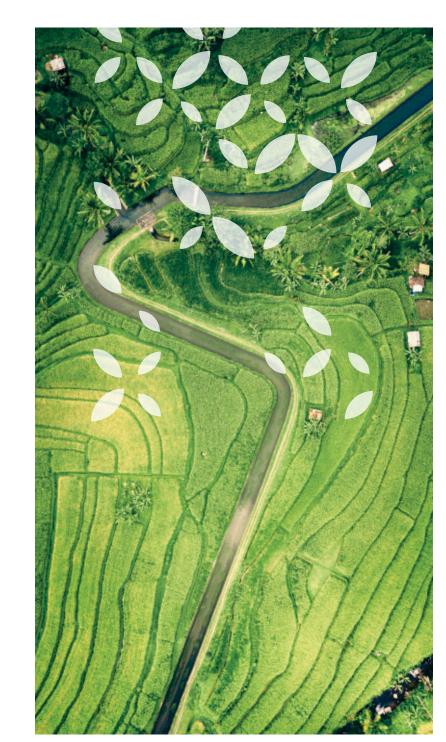
- Infrastructure Feasibility Study
- Municipality Services
- Financial Analysis
- Private Sector Capacity Assessment
- Real Estate Market Analysis
- Cost- Estimation
- Procurement
- Cost-Benefit Analysis
- Investment Plan

Sustainable City

- Low Carbon Development
- Green Planning
- Sustainable Infrastructure
- Sustainable Mobility
- Smart Cities
- TOD
- Place Making
- Urban Regeneration
- Participatory Planning
- Community-led Design

Climate Change

- Climate Change Adaptation
- Climate Change Mitigation
- Green Building
- Energy Efficient Design
- Water Efficiency
- GHG Emission Reduction
- Climate Actions
- Nature-Based Solutions
- Environmental Assessments
- Safeguard





No.	Project Title	Location	Year	1	2	3	4	5	6	7	8	
1	Detailed Design Preparation for Reconstruction/Rehabilitation for Public Schools Located in Imereti (Municipal Development Fund of Georgia)	Georgia	2021				•			•	•	
2	Strategy for Yangons Structural Seismic Resilience (World Bank)	Yangon, Myanmar	2020		•		•	٠	٠	•		
3	Vulnerability Assessment and Prioritized Investment Plan for Critical Assets in Dhaka — Bangladesh (World Bank, RAJUK)	Dhaka, Bangladesh	2018-2022				•		•	•		 Sustainable and Smart Cities Resilient Cities Climate Change Adaptation and Mitigation
4	Multi-Hazard Structural and Non-Structural Evaluation of Selected Hospitals and Health Facilities (BEHTAB) - Iran (UN-HABITAT)	Iran	2019		•		•		•			 4 Structural Design and Rehabilitation 5 Hazard, Risk, and Vulnerability Assessment 6 Awareness Raising & Capacity Development
5	Structural Vulnerability Assessment and Design of Faizabad Hospital, Badakhshan, Afghanistan (Phase I, Ii, Iii)	Afghanistan	2017				•					7 Financial & Municipal Services8 Supervision
6	International Istanbul Health City — Turkey (Ministry of Health, Turkey)	Turkey	2016	•	•		٠	•		٠		
7	Consultancy Services for Structural Assessment and Feasibility Studies of Aga Khan Lycee — Khorog, Tajikistan (Aga Khan Education Service)	Tajikistan	2018				•		•		٠	
8	Structural Assessment and Retrofitting Design of Six AKDN/AKHS Health Facilities	Afghanistan	2017				٠	•		٠		

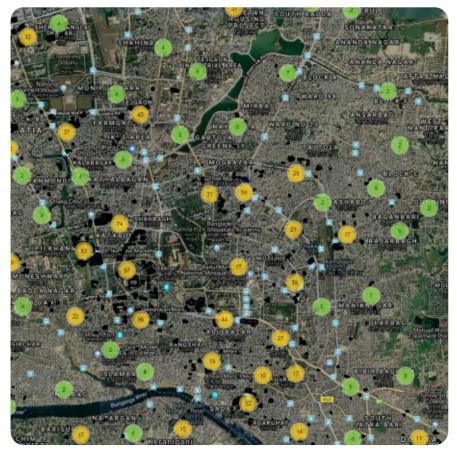
No.	Project Title	Location	Year	1	2	3	4	5	6	7	8	
9	Vulnerability, Seismic Risk Assessment, Prioritization	Afghanistan,	2017				•		•			
	and development of Long-Term Investment Plan of 6000 DRMI Structures in 5 countries Aga Khan Development Network/ Disaster Risk Management Initiative	Turkemenstan, Tajikistan, Kazagystan										
10	Provision of Professional Services to Develop Design and Carry out Supervision of ECO building project in Ninawa	Iraq	2022			٠	٠				•	
11	Structure Multiple and Lity Accessory and Design of	Pakistan.	2015	•								 Sustainable and Smart Cities Resilient Cities
11	Structural Vulnerability Assessment and Design of 328 Public Structures	Tajikistan,	2015	•	•							3 Climate Change Adaptation and Mitigation
		Afghanistan										4 Structural Design and Rehabilitation
12	Infrastructure Project Portfolio Management Of Osmaniye	Turkey	2022	•		•			•		•	5 Hazard, Risk, and Vulnerability Assessment
												6 Awareness Raising & Capacity Development
13	Development of Risk Sensitive Land Use Planning	Dhaka,	2018-2020		•					•	•	7 Financial & Municipal Services
10	practice (RSLUP), DHAKA — Bangladesh (World Bank, RAJUK)	Bangladesh	2010 2020	Ū	•	•		•	•	•	•	8 Supervision
14	Development of Multi-Hazard Risk Assessment of Faizabad City — Aga Khan Agency for Habitat	Afghanistan	2019		٠	•		•	٠			
15	Resilient Regeneration of Hill side Organic settlement in Kabul	Afghanistan	2022	٠	٠	٠		٠	٠			
16	Transportation Master Plan Of Osmaniye	Turkey	2022	٠								
17	Creditworthiness Analysis for Şanlıurfa and Eskişehir Metropolitan Municipality	Turkey	2022							•		

No.	Project Title	Location	Year	1	2	3	4	5	6	78	
18	Osmaniye Urban Resilience Master Plan	Turkey	2022	•	٠	•		•			
19	Osmaniye Urban Sustainable Mobility Plan	Turkey	2022	•		•					
20	Osmaniye Land and Property Asset Value Assessment	Turkey	2022							•	
21	Risk Sensitive and Climate Resilient Land Use planning for Faizabad City (Aga Khan Agency for Habitat)	Afghanistan	2021		•	•		•	•		1 Sustainable and Smart Cities
22	Climate-Smart Habitat Planning for New Kabul City (Aga Khan Agency for Habitat)	Afghanistan	2021			•		•	•	•	 Resilient Cities Climate Change Adaptation and Mitigation
23	Technical Review of Development Potential in Two Urban Transformation Areas in Turkish Metropolitan Municipalities (World Bank)	Turkey	2021	٠	•					•	 4 Structural Design and Rehabilitation 5 Hazard, Risk, and Vulnerability Assessment 6 Awareness Raising & Capacity Development 7 Financial & Municipal Services
24	Development of Green and Climate Smart Guideline and Implementation Manual for Buildings & other Development Program of AKAH-A & Development of Climate Adaptation and Mitigation Implementation Programs for AKAH — Afghanistan - (Aga Khan Agency for Habitat)	Afghanistan	2020			•			•		8 Supervision
25	Development of construction level drawing of Dasht-e-Dehkhaw housing project, Shukai district, Badakhshan — Afghanistan (Aga Khan Agency for Habitat)	Afghanistan	2019	•	•		•		•	•	
26	Seismic Hazard and Building Vulnerability & Risk Assessment and Risk Sensitive Land Use Planning of Pul e Khumri City— Afghanistan (Aga Khan Agency for Habitat)	Afghanistan	2018-2020		•			•	•		

No.	Project Title	Location	Year	1	2	3	4	5	6	•	7	8				
27	Strategic Environmental Assessment DHAKA — Bangladesh	Dhaka, Bangladesh	2018-2020	•	•	•		٠	•	•						
28	Sustainable and Climate Resilient Urban Mobility Plan DHAKA — Bangladesh (RAJUK)	Dhaka, Bangladesh	2018-2020	•	•	•			•	•						
29	Consultancy Agreement for Earthquake-Resistant Rural Construction Training of Trainers' Course for Masons — Aga Khan Agency for Habitat	Afghanistan	2018	•	•				•	•				2 F	Sustainable and Smart Cities Resilient Cities	
30	Conceptual Design Consultancy Services for Atlas Plaza Mix-Use Commercial Complex — Iran	Iran	2018	•			٠					٠		4 :	Climate Change Adaptation and Mitigat Structural Design and Rehabilitation Hazard, Risk, and Vulnerability Assessm	
31	Supporting the General Directorate of Investments Department of Public Private Partnership for Ministry of Health of Turkey Evaluation - Review and Feasibility for Implementation of Ikitelli-Istanbul, Ankara, Adana, Diyarbakir Health Cities Using PPP Approach (Ministry of Health Turkey)	Turkey	2017	•	•			•	•)	•			7 F	Awareness Raising & Capacity Develop inancial & Municipal Services Supervision	ment
32	Structural Audit and Feasibility studies of Selected AKDN Public Facilities	Afghanistan	2017				•									
33	Peer Review of Consulting Services for Design of National Seismic Risk Mitigation Program (NSRMP), District Hospital, District Rudraprayag, Uttarakhand, India and Capacity Building for Seismic Assessment and Retrofitting of Buildings Using Non-Linear Time History Analysis Procedure (ASCE41-17) - Aga Khan Development Network/ DDF	India	2020				•	•	•	•	•					



VULNERABILITY ASSESSMENT AND PRIORITIZED INVESTMENT PLAN FOR CRITICAL ASSETS SO4 2018



OHAKA BANGLADESH

Project Consultancy Contract Value : 5.790.000 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 EEC

Countries : 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 cyclone and flood. The threat of an earthquake, however, is less visible but significant given that Bangladesh lies on the seismically active zone of Indian plate. The project's general goal is to empower RAJUK, and stakeholders with knowledge to create an environment for promoting higher standards and ethics for construction and development through understanding of hazards, vulnerability and risk of Greater Dhaka with technologies that enable spatial visualization and data sharing.

Service Provided

- Development of methodology for RVA of critical facilities
- Development of GIS-Based RVA application
- Development of methodology of PEA for critical facilities
- Identification of most common deficiencies in buildings
- Prioritization of the buildings considering technical and financial aspects for further intervention actions
- Detailed engineering analysis of the selected buildings
- Development of long-term investment plan
- Holding training and capacity building sessions

ANALYTICS IN SUPPORT OF A STRATEGY FOR SEISMIC RISK REDUCTION OF PUBLIC BUILDINGS 2021



YANGON, CITY HALL MYANMAR

Project Consultancy Contract Value : <u>340,000</u> USD Project Consultancy Duration : <u>8</u> months Project Partners : Protek-Yapi ECC (Turkey) Project Clients : World Bank Countries : Myanmar Area : <u>784</u> km²

Project Description

Myanmar as one of the largest countries in Southeast Asia is one of the world's most disasterprone 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 is 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 aims 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.

Service Provided

- Developing a framework for eligible building selection.
- Performance-based assessment of most common typologies
- Developing fragility/vulnerability curves
- Developing the risk reduction strategy
- Development of prioritization framework to inform sequencing of improvement of eligible public buildings

DESIGN OF INTERNATIONAL HEALTH CITY 2012-2014



SISTANBUL TURKEY

 Project Consultancy Contract Value : <u>1.5</u> billion USD

 Project Consultancy Duration : <u>24</u> months

 Project Partners : PBK Architects (USA), Protek-Yapi ECC (Turkey)

 Project Clients : Ministry of Health, Turkey

 Countries : Turkey

 Area : <u>400</u> hectares

Project Description

Situated on approximately 400 hectares, the International Istanbul Health City (the Health City) will house a 3800 bed integrated health campus and include generous Accommodations for :

- A health focused university and medical school
- A health focused business and commerce zone
- A health related cultural facilities including museums of health, science, art, and history
- A resort hotel that caters to medical tourism and extended family stays

Scope of the Project

This circular arrangement of the campus provides clearly defined, strategically designated campus regions for the following branded areas :

- Welcome Portal
- Spiritual Plaza
- Civic Plaza
- Commerce PlazaLeisure Plaza

Cultural Plaza

- Global Education Plaza
- Wellness Resort Plaza

www.Protek-Yapi.com

MULTI-HAZARD STRUCTURAL AND NON-STRUCTURAL EVALUATION OF SELECTED HOSPITALS AND HEALTH FACILITIES (BEHTAB) **2019**

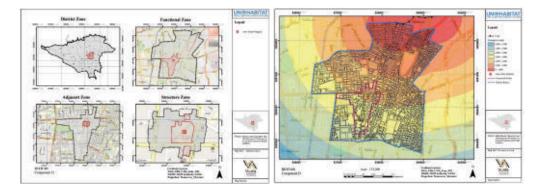


• TEHRAN **IRAN**

Project Consultancy Duration : <u>8</u> months Project Clients : UN-HABITAT, UNDP Countries : Iran Area : <u>160,000</u> square meters

Project Description

In line with the sustainable development goals (SDG) and Sendai framework (SF) BEHTAB project was funded by Japan Government to increase the resilience of the health facilities. In this regards, UN- Habitat mobilized a project for Iranian hospitals and we conducted the study for two selected hospitals in Tehran. This assignment was done based on the City Resilience Profiling Tool (CRPT) developed by UNISDR.



VULNERABILITY ASSESSMENT AND RETROFITTING DESIGN OF EDUCATIONAL FACILITIES 2016



KHOROG TAJIKISTAN

Project Consultancy Contract Value :
Confidential - can be provided upon official request
Project Consultancy Duration : <u>12</u> months
Project Clients : Aga Khan Educational Services (AKES)
Countries : Tajikistan
Area : <u>8526</u> square meters
Building Type : <u>11</u> Educational Facilities

AKES in Central Asia

In Asia, Education Services operates schools in South Asia and Central Asia. The earliest schools were opened in 1905. Today there are over 190 schools in Asia. AKES operates two model schools in the region, one in Khorog, the capital of Gorno Badakhshan in Tajikistan, and the other in Osh, in the neighbouring Kyrgyz Republic. AKES> outreach efforts also impact the district schools within Gorno-Badakhshan through teacher-training and other school improvement efforts, often in partnership with other DRMI agencies.

Scope Of The Contract

This project was developed upon a request by the Development Network (DRMI) to Protek Yapi for support in execution of feasibility studies and seismic evaluation of the Aga Khan Lycee Building Khorog which consist 11 blocks with approximately 8500 m2. The objective of this project was defined for vulnerabilities associated with this structure and to develop solutions to mitigate the seismic risks associated with the structure. The contract was awarded to Protek Yapi to undertake the project in three phases:

- Assessment of buildings
- Preliminary design of retrofitting and rehabilitation of the structures assessed and found suitable for retrofitting
- Final design

SEISMIC RISK ASSESSMENT AND PRIORITIZATION OF +6000 STRUCTURES 2014-2015



PAKISTAN, AFGHANISTAN, TAJIKISTAN, KYRGYZSTAN, INDIA

Project Consultancy Contract Value :Confidential - can be provided upon official requestProject Consultancy Duration :24 monthsProject Clients :DRMI, AKDN, AKF

Countries : Pakistan, Afghanistan, Tajikistan, Kyrgyzstan, Indi

Building Type : <u>+6800</u> buildings: Health Center, Education, Office, Religious Center, Warehouse, Residential units etc.

Project Description

AKDN agencies have more than 6000 facilities and infrastructure in DRMI countries including Afghanistan, India, Pakistan and Tajikistan. The facilities include schools, hospitals, health centers, Jamatkhanas, offices, warehouse, residential units etc. This infrastructure is located in high seismic prone areas, thus there is an urgent need to assess the structural and non-structural safety of these facilities. The study had been conducted based on a request from DRMI to prioritize the most critical facilities required additional structural and non-structural audit. The project has been implemented in three partially overlapping phases.

Service Provided

- Review of existing literature in multi hazard vulnerability of selected countries
- Strategy planning and budgeting
- Facilitate peer reviews of course design and material
- Customized course design and education/learning kits
- Developed process and methodology
- Finalize the methodology post peer review
- Guidelines and manual
- Awareness kits for decision maker
- Training material
- 1-2 formal reviews and revisions of produced documents
- Managing and administering project performance, logistic, accountabilities and reporting

STRUCTURAL VULNERABILITY ASSESSMENT AND DESIGN OF <u>328</u> PUBLIC STRUCTURES **2015-2016**



PAKISTAN, AFGHANISTAN, TAJIKISTAN

- Data Collection
- Surveying and geotechnical analysis
- Assessment and verification of actual status of the structure
- Preliminary analysis for retrofitting and rehabilitation of the structure

 Project Consultancy Contract Value :

 Confidential - can be provided upon official request

 Project Consultancy Duration :
 12 months

 Project Partners :
 Protek-Yapi ECC (Turkey), timA (Turkey)

 Project Clients :
 DRMI, AKDN

 Countries :
 Afghanistan, Pakistan, Tajikistan

 Area :
 51.815 square meters

 Building Type :
 Health Center, Educational, Office, Religious Center.

Project Description

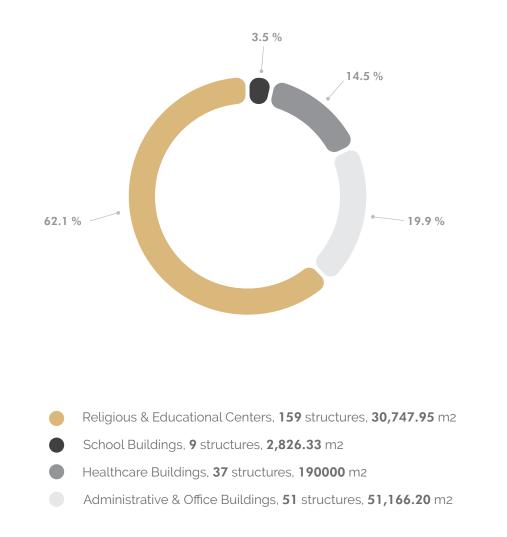
The goal of the project was to strengthen the relevant disaster management capabilities of the faculties of the Aga Khan Development Network (AKDN) in Central and South Asia in order to risk reduction activities in the region.

- Assess seismic risk
- Reduce disaster risk
- Promote safety consciousness
- Build emergency response capacity

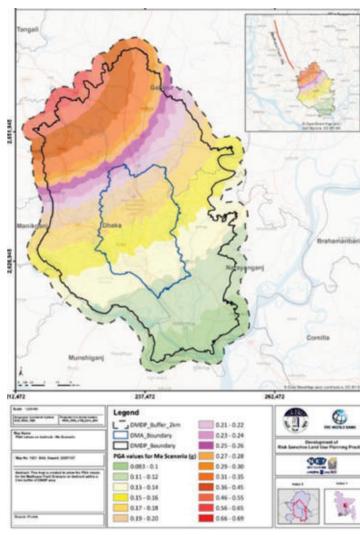
The Consultant's scope of services consists of feasibility studies and technical assistance for retrofitting and rehabilitation of selected 276 most critical AKDN Structures in Afghanistan, Pakistan and Tajikistan and develop designs for retrofitting of structures found feasible within the scope of the contract. The main components of the audit are:

- Feasibility and appropriateness for retrofit measures, considering conventional and innovative techniques, and develop long-term sector plans
- Final Development and model the retrofitting Design
- Cost-benefit analysis of recommended actions
- Recommend mitigation of non-structural components, etc.

STRUCTURAL VULNERABILITY ASSESSMENT AND DESIGN OF <u>328</u> PUBLIC STRUCTURES **2015-2016**



DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), SO5 2018



OHAKA BANGLADESH

Project Consultancy Contract Value : 6.100.000 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 EEC

Countries : 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 cyclone and flood risk management and preparedness. the Government of Bangladesh (GoB), civil society, and international development partners have demonstrated that investment in the systems and structures of flood risk management and cyclone preparedness saves lives, reduces economic loss, and protects development gains. The Government of Bangladesh (GoB) requested a support program on earthquake risk mitigation. The Global Facility for Disaster Reduction and Recovery (GFDRR) of the World Bank has provided funds to undertake Technical Assistance projects.

Service Provided

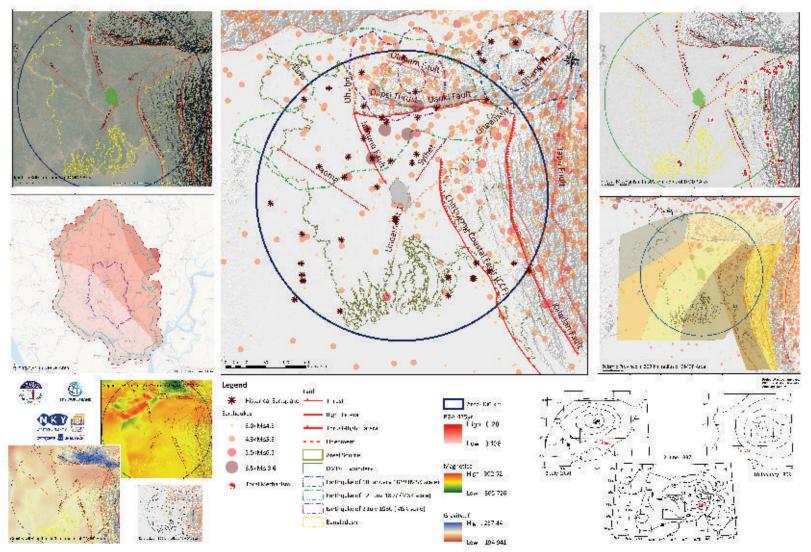
- Situation Analysis and Diagnosis
- Geotechnical and Hydrological assessment
- Hazard, Vulnerability, and Risk assessment
- Micro-zonation and Exposure analysis
- Risk Sensitive Land Use Plan Strategy
- Urban Expansion Model
- Action plans, Implementation Program, Financial Model

DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), SO5 2018

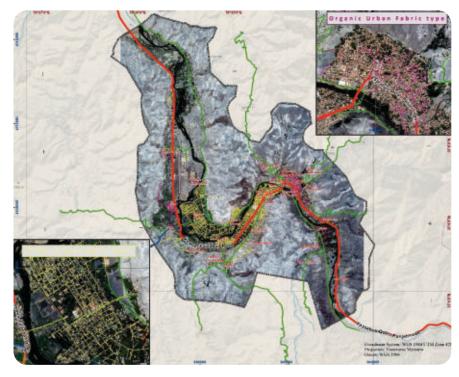
Phazed Implementation Plan for Mainstreaming DRR into Planning System (RSUP) leadership & **Capacity Building** Continuous effort Maturity of the plan Initial Set up Innovation Phaze 4 Phaze 5 Phaze I Phaze 2 Phaze 3 1.5 - 5 Years 0 - 1.5 Years 7 - 10 Years 10 Years + Use RSLUP achievements · Begin awareness raising based on · Eliminate government funding for Eliminate international funding Continuation of awareness raising elsewhere in Bangladesh (National identified disasters and rely on municipal revenues projects and increase local programs (Collaboration with and Local Scales) Negotiate with stakeholders to government funding and private investment schools, universities, NGOs and · Implementation of programs and identify needs and gather · Exploiting the economic benefits · Strengthen software and hardware proposals using different financial more) investment of projects infrastructure · Approval and implementation of resources (Smentioned financial · Drafting laws and regulations (for Complete software and hardware · Creating grounds for creativity and the proposed institutional sources) codifying or amendment) deficiencies to stabilize the innovation The first feedback on the framework (4 pillars and the · Prepare an initial draft of the legal proposed institutional · Use the experiences of previous effectiveness of RSLUP and proposed mechanism) duties and prerequisites for arrangement years to improve conditions and · Increasing the attraction of correction suggestions implementing the proposed Program consolidation stage programs The first feedback on the domestic and foreign investment institutional framework · Continue human resource · Maximum attendance and effectiveness of the Preparation of priority projects · Prompt action on high-risk areas development and recruit new participatory planning comprehensive RSLUP software (low-income housing, slums, etc.) fe.g., relocation, construction of Full realization of management employees (based on previous · Reform of land management and correction suggestions security structures, etc.) phase evaluations) legitimacy in DMR system · Exploit programs for the urban · Needs assessment and feasibility · Full readiness of institutions and Accelerate development in DMR · Preparation of a comprehensive poor study of providing comprehensive people in DMR components · Continuation of poverty reduction · The first environmental land database integrated RSLUP software (mitigation, preparedness, programs in Dhaka · Finalize the comprehensive assessment of the implementation Begin Capacity Building courses · Begin final evaluation of the response and recovery) of RSLUP integrated RLSUP software · Needs assessment and recruit of project and preparation of · Complete risk mitigation and Approval and implementation of Assessing the impact of RSLUP required manpower reduction projects requirements for future plans DAP amendments (based on implementation on agricultural Preparation of detailed financial Synchronize development with Evaluation of human resource **RSLUP** recommendations) lands (risk reduction, protection, plan for different parts of the market forces and demands performance, performance of · Strengthen training programs for revenue generation, etc.) project (for approval by the Minimize all types of institutions in times of crisis, vulnerable groups · Review priorities competent authorities) vulnerabilities effectiveness of RSLUP proposals in · Complete the rehabilitation of · Priority measures and projects for · Approve new building codes based Complete retrofitting of existing recent years, etc. public buildings high-risk areas on URP proposals buildings Strengthen software and hardware · Complete the necessary infrastructure for DRR infrastructure

DEVELOPMENT OF RISK SENSITIVE LAND USE PLANNING PRACTICE (RSLUP), SO5 2018

SEISMOTECTONIS MAP OF DMDP



RISK SENSITIVE AND CLIMATE RESILIENT LAND USE PLANNING FOR FAIZABAD CITY 2021



FAIZABAD AFGHANISTAN

Name of Legal Entity Completing the Work :

The Joint Venture of Protek Yapi Engineering Co., VESTA EEC

Countries : Afghanistan

Date of start and completion : July 2021 - Ongoing (35%)

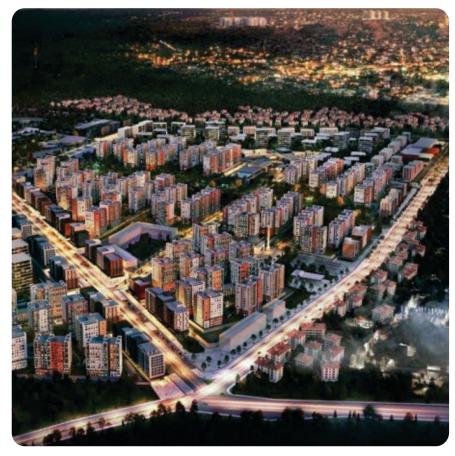
Project Clients : Aga Khan Agency for Habitat

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 is:

- 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.

TECHNICAL REVIEW OF DEVELOPMENT POTENTIAL FOR TWO URBAN TRANSFORMATION AREAS IN SELECTED METROPOLITAN MUNICIPALITIES **2021**



V TURKEY

Name of Legal Entity Completing the Work : The Joint Venture of Protek Yapi Engineering Co., Sub Consultant: VESTA EEC

 Project Implementation Budget :
 116,000
 USD

 Countries :
 Turkey

 Date of start and completion :
 Oct 2021- Ongoing (15%)

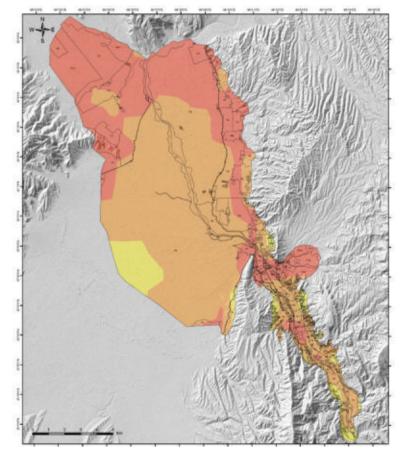
Project Clients: World Bank

Project Description

Over the last decade, Turkey initiated several regulatory and institutional reforms to mitigate and reduce the impacts of seismic risk. The scale of financial and technical support required to enhance the seismic resilience of housing in Turkey is massive. Despite the development of a legal framework supporting disaster risk managementdriven urban transformation, Turkey faces several ongoing policy and finance challenges. To support the preparation of the Urban Resilience Project the proposed City Resilience Program (CRP) funded TA program would support the preparation of:

- Specific area-based reviews of development potential and assess financial models for resilient infrastructure investments in 2 target municipalities
- A study on private sector capacity to invest in UR and Urban transformation projects and development of instruments to facilitate this sectors involvement in such projects
- Training on financial models for municipalities to utilize for urban transformation projects using the content from a guidebook that has been prepared under separate GFDRR funding.
- The objective of this consultancy is the development of TWO Technical Reviews of Development Potential in selected metropolitan for the municipalities

SEISMIC HAZARD AND BUILDING VULNERABILITY & RISK ASSESSMENT AND RISK SENSITIVE LAND USE PLANNING OF PUL-E-KHUMRI CITY, AFGHANISTAN **2020**



PUL-E-KHUMRI **AFGHANISTAN**

Project Consultancy Contract Value :

Confidential - can be provided upon official request **Project Consultancy Duration :** <u>9</u> months

Project Clients: Aga Khan Agency for Habitat

Countries : Afghanistan

Area : <u>4,373</u> Ha

Project Description

Afghanistan is one of the most disaster-prone countries in the world, and earthquake is one of the most significant natural hazards impacting its civil infrastructure and human activity. This project focuses on the seismic hazard, earthquake vulnerability and risk assessment, and risk sensitive land use planning of Pul-e-Khumri City, the capital and largest city of Baghlan Province and the second-largest city in northeastern Afghanistan.

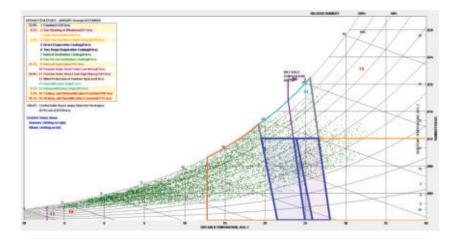
The general objectives of this study are to use the state-of-the-art methodology and tools for: 1-Development of the seismic hazard map of Pul-e-Khumri City

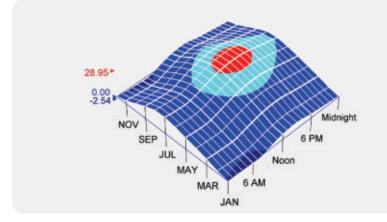
- 2-Building stock vulnerability and risk assessment of Pul-e-Khumri City
- 3-Risk sensitive land use plan based on seismic hazard, HVRA studies and remote sensing analysis of geological and hydro metrological studies (i.e. rock fall, landslide, flood, etc.,) of Pul-e-Khumri City
- 4-Develop the resilience master plan of Pul-e-Khumri City

Service Provided

- 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)

DEVELOPMENT OF CLIMATE ADAPTATION AND MITIGATION IMPLEMENTATION PROGRAMS FOR AKAH — AFGHANISTAN **2020**





AFGHANISTAN

Project Consultancy Contract Value :

Confidential - can be provided upon official request

Project Consultancy Duration : <u>8</u> months

Project Clients : AKDN

Countries : Afghanistan

Project Description

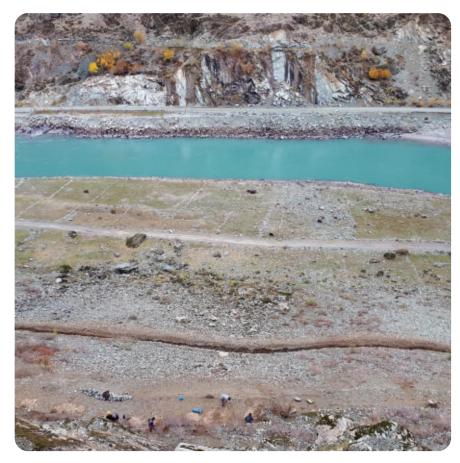
The output of this consultancy was to:

- 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

Service 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

DEVELOPMENT OF CONSTRUCTION LEVEL DRAWING OF DASHT-E-DEKHAW HOUSING PROJECT, SHUKAI DISTRIC **2020**

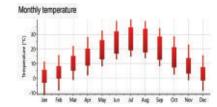


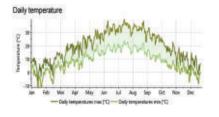
Sadakhshan AFGHANISTAN

Project Consultancy Contract Value : Confidential - can be provided upon official request
Project Consultancy Duration : <u>7</u> months
Project Clients : AKAH-A (Aga Khan Agency for Habitat)
Countries : Afghanistan

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.



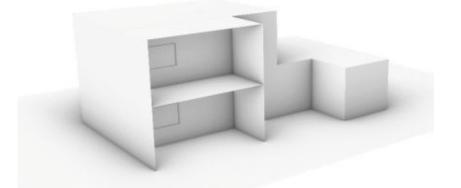


DEVELOPMENT OF CONSTRUCTION LEVEL DRAWING OF DASHT-E-DEKHAW HOUSING PROJECT, SHUKAI DISTRIC **2020**



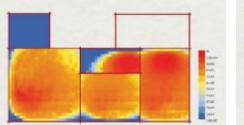
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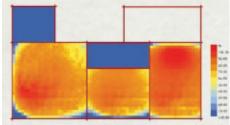
3D MODELL



SAMPLE FLOOR UDI 100-2000 LUX

DIRECT SOLAR RADIATION





DEVELOPMENT OF CONSTRUCTION LEVEL DRAWING OF DASHT-E-DEKHAW HOUSING PROJECT, SHUKAI DISTRIC **2020**

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.)

SPECIAL SERVICES FOR INTEGRATED HABITAT ASSESSMENT AND PLANNING FOR RURAL HOUSING 2019



Sadakhshan AFGHANISTAN

 Project Consultancy Contract Value :

 Confidential - can be provided upon official request

 Project Consultancy Duration : <u>4</u> months

 Project Clients : Aga Khan Agency for Habitat

 Countries : Afghanistan

 Area : <u>2.4</u> hectares

Project Description

Afghanistan is among the most disaster-prone countries in the world. It is evident that not only the prolonged conflict but also the recurrent disasters have put the fragile county in a vicious circle of underdevelopment. To address the increasing threat posed by natural disasters and climate change, the Aga Khan Agency for Habitat (AKAH) works to ensure that poor people live in physical settings that are as safe as possible from the effects of natural disasters. This Project is Habitat planning and rural housing design for DehKhaw village in Darwaz Badakhshan, effected by debris flow and flood in 2017 and currently living in severe condition. The objective of this study is to develop the Habitat planning/village planning and affordable rural housing modals to suite for the mountainous area of the newly identified land plot based on Habitat Assessment.

Scope of Services

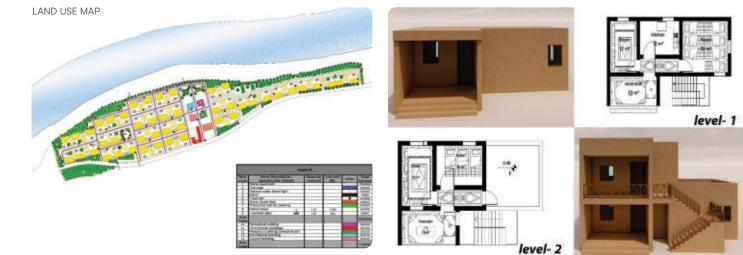
- Habitat Planning Based on Habitat Assessment for Dasht-e-Deh Khaw (2.8 Hectare)
- Develop Affordable Rural Housing Model (Plain and Mountainous Region)
- Development of Implementation Methodology, Tools for Habitat Assessment and Planning of AKAH Framework.

SPECIAL SERVICES FOR INTEGRATED HABITAT ASSESSMENT AND PLANNING FOR RURAL HOUSING

MITIGATION FOR FLOOD

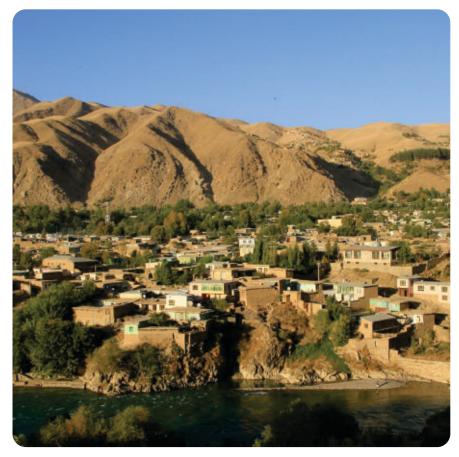
3D MODELLING





RURAL HOUSING MODEL

SPECIAL SERVICES FOR RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN 2019



• FAIZABAD **AFGHANISTAN**

- Providing risk/loss maps for the expected buildings losses.
- Developing the GIS-based database concerning Socio-Economic Data of Faizabad
- Developing economic loss analysis model

 Project Consultancy Contract Value :

 Confidential - can be provided upon official request

 Project Consultancy Duration : 5 months

 Project Clients : Aga Khan Agency for Habitat

 Countries : Afghanistan

 Area : 1.500.000 square meters

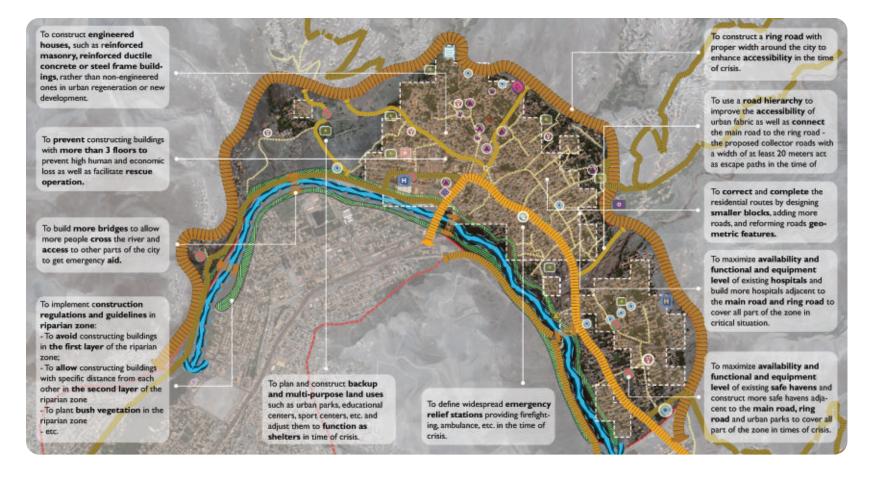
Project Description

To address the increasing threat posed by natural disasters, the Aga Khan Agency for Habitat (AKAH) works to ensure that poor people live in physical settings that are as safe as possible from the effects of natural disasters; that residents who do live in highrisk areas are able to cope with disasters in terms of preparedness and response; and that these settings provide access to social and financial services that lead to greater opportunity and a better quality of life. In this regard, Protek Yapi as consulting company was contracted with AKAH 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 objective of this study is to develop the "building vulnerability and risk assessment of Faizabad city using state of the art methodology and tools for risk sensitive land us plan and contingency planning.

Scope of Services

- Collecting building data and defining the building taxonomy in Faizabad.
- Collecting information on the building quality
- Providing vulnerability relationships for the building stock according to existing global knowledge and expert judgment.
- Preparing the OpenQuake platform for the physical building vulnerability and building loss analysis.
- Vulnerability analysis of buildings for all possible Seismic hazard levels and earthquake scenarios.

SPECIAL SERVICES FOR RISK ASSESSMENT OF FAIZABAD CITY, AFGHANISTAN 2019



Urban Resiliency and Risk Sensitive Planning

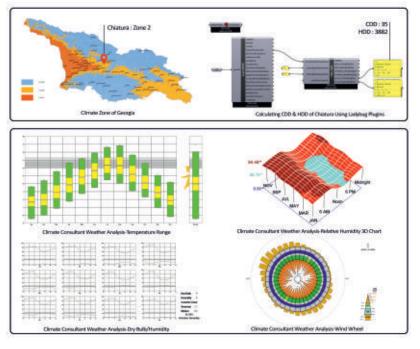
the following actions have been carried out to achive the urban resiliency and Risk-sensetive Land Use Strategies of the project:

- Considering several models of seismic hazard, along with other hazards such as flood and rock fall, and socio economic features to identify human and economic loss using Open Quake platform
- Developing a conceptual framework of urban resilience considering climate change, risk-sensitive land use, contingency plans
- Developing urban policies and resilience policy plans for disaster reduction.



Ongoing **Projects**

DETAILED DESIGN PREPARATION FOR RECONSTRUCTION/ REHABILITATION FOR PUBLIC SCHOOLS **2021**





IMERETI GEORGIA

Name of Legal Entity Completing the Work :				
The Joint Venture of Protek Yapi Engineering Co.,				
Sub Consultant: VESTA EEC				
Project Implementation Budget :	<u>148,000</u> USD			

Countries : Georgia

Date of start and completion : Aug 2021- Ongoing (40%)

Project Clients : Municipal Development Fund of Georgia

Project Description

The objective of the assignment is 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 Imereti (5 schools), with the aim of producing a complete set of bidding documents.

- Surveys and investigation activities including:
 - Cadastral information
 - Topographical survey
 - Geological survey and geotechnical analysis
 - Building survey
 - Measurement drawings
 - Walk —through energy audit
- Preparation of the preliminary design which consists from the below listed parts
- Architectural, Interior, Energy efficiency, Structural seismic, Electrical, Plumbing, Technological, Heating-ventilation, External networks connection, Weak current systems

PROVISION OF PROFESSIONAL SERVICES TO DEVELOP DESIGN AND CARRY OUT SUPERVISION OF ECO BUILDING PROJECT IN NINAWA **2022**



PNINAWA **IRAQ**

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

Countries : Iraq

Date of start and completion : January 2022 - Ongoing

Project Clients: United Nations Development Programme (UNDP)

Project Description

The main objective of this project is to carry out of a design service in order to develop the required technical specifications, design drawings, cost estimation, tender documentation and supervisions for the implementation of ECO building by means of soil stabilization technique using lime for a Research Center in Mosul University and a community hall in Lalish-Sinunu-Ninawa.

- Undertake all required detail soil analysis of site and investigation to determine the right composite design in respect of winter/Summer, humidity, solar radiation, prevailing wind, rainfalls analysis, noise pollution and air pollution
- Analysis of building shape, orientation including climate classification, solar radiation, wind speed and annual temperature detail
- Determine the passive low energy strategies to make the building more climate responsive and environment friendly.
- Determine the required compressive strength for the structure
- Determine the use of natural, recyclable, environmentally friendly materials to be used in the building with the adaptation of building envelop concept to protect the building form weather variations and the use of insulation material to reduce energy loss from building
- Design brick and kiln work with the new soil/lime technique.
- Design and recommend the solar energy system with required capacity with all related electrical wiring including internal ducting and piping seldom visible supporting the building operation
- Wind towers for natural ventilation and use of natural ventilation to reduce energy consumption
- Rainwater catchment system (cisterns) and reuse of rainwater recycling for reuse in toilets
- Biogas digester with design and capacity

INFRASTRUCTURE PROJECT PORTFOLIO MANAGEMENT OF OSMANIYE 2022



OSMANIYE TURKEY

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

Countries : Turkey

Date of start and completion : June 2022 - Ongoing

Project Clients : 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 shape the basis of this project.

i) Provide technical support for faster delivery and effective management of municipal infrastructure;

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

- Technical Support Services
- Project Management Services
- Monitoring Evaluation
- Security, Awareness And PR

RESILIENT REGENERATION OF HILL SIDE ORGANIC SETTLEMENT IN KABUL 2022



V KABUL **AFGHANISTAN**

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

Countries : Afghanistan

Date of start and completion : August 2022 - Ongoing

Project Clients: Aga Khan Agency for Habitat Afghanistan (AKAH-A) / AKAH

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. 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. This study provided guidance strategically aligned with AKDN's Habitat Plan (HP). The HP provides a framework for pan-regional rural planning approach to the built environment created to address AKAH's practices and needs. The sharing of findings from this report will further inform AKAH, the AKDN, and other relevant key stakeholders, including partners and donor agencies.

- Deliverable 1: Habitat Assessment: (a) Review Social and Economic Priorities
- Deliverable 2: Habitat Assessment: (b) Review Physical and Land-Use Priorities

TRANSPORTATION MASTER PLAN OF OSMANIYE 2022



OSMANIYE TURKEY

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

Countries : Turkey

Date of start and completion : June 2022 - Ongoing

Project Clients : 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 load in summer months with a focus on tourism, as well as the expansion of borders. The necessity of an urban transportation study 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 Study covers the whole of the planning decisions and principles developed for the solution of the transportation problems experienced today and expected to occur in the future with long-term approaches by giving priority to the transportation systems and resolving the transportation infrastructure and management within the framework of the strategy and development proposals within the scope of the Environmental Plan decisions, the reorganization of transportation Master Plans consists of technically long and comprehensive processes including detailed surveys, field researches such as census, transportation demand forecasting models and alternative planning studies.

Service Provided

Existing Data Collection and Analysis New Data Collection and Analysis Transportation Master Plan

CLIMATE-SMART HABITAT PLANNING FOR NEW KABUL CITY 2021



V KABUL **AFGHANISTAN**

Name of Legal Entity Completing the Work :

The Joint Venture of Protek Yapi Engineering Co., VESTA EEC

Countries : Afghanistan

Date of start and completion : July 2021 - Ongoing (35%)

Project Clients: 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 climatesmart 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.



Training & Education

Protek Yapi's goals on holding training sessions

- Protek Yapi believes that training for employees and customers have a significant impact on the quality of service/project.
- Protek Yapi holds continuous training before, during and after the implementation of the project. Trainings are held to educate the employees, partners, customers; basically anyone who is in the critical path of the project success.

Some of the stakeholders to which the courses were hold, included:

- DRMI
- FOCUS
- RAJUK
- AKDN

The overall aim of the training was to build the capacity of key persons selected, such as engineers, masons and community facilitators, to facilitate and support effective and sound earthquake resistant construction. The training also provided a useful opportunity for participants to share relevant experiences and case studies from their own regions.

No.	Title	Profile	Level	Language
1	Earthquake Resistance Rural Construction	Masons, Junior civil engineer	Advanced	English
2	Disaster Risk Management	Expert/ Manager	General/ Intermediate/ Advanced	English
3	Pre Disaster Vulnerability Assessment	Expert/ Manager	General/ Intermediate/ Advanced	English
4	Structural and Non-Structural Hazard Mitigation	Expert/ Manager	Intermediate/ Advanced	English
5	Landslide training courses	Expert/ Manager	General/ Intermediate/ Advanced	English
6	Subsidence training Course	Expert/ Manager	General/ Intermediate/ Advanced	English
7	Flood Course	Expert/ Manager	General/ Intermediate/ Advanced	English
8	Seismology Training Course	Expert/ Manager	General/ Intermediate/ Advanced	English
9	Project Management	Expert/ Manager	General/ Intermediate/ Advanced	English
10	Geophysical/Geotechnical Laboratory Tests	Experts	Advanced	English



CONDUCTED TRAININGS AND CAPACITY BUILDING FOR RAJUK VULNERABILITY ASSESSMENT AND PRIORITIZED INVESTMENT 2019



OHAKA BANGLADESH

Training Description

As part of contract "Vulnerability Assessment and Prioritized Investment Plan for Critical Assets in Dhaka", Protek-Yapi and the partners will develop 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 will be 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



OHAKA BANGLADESH

Training Description

As part of contract "Development of Risk Sensitive Land Use Planning practice", Protek-Yapi delivered/will deliver 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





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

V KABUL **AFGHANISTAN**

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