



About **Vesta**

VestA Abadgeran Bimarz Engineering Consultancy Ltd is a pioneering international company active in the field of engineering and architectural development of complex projects. VestA has been able to grow significantly in engineering and implementation of projects in various fields, relying on its specialized knowledge of engineers and consultants, and transfer of new experiences and technologies from all around the world. Creativity, innovation, speed of operation and accuracy in the research projects are the key characteristics of our services. The efforts of engineers and managers of this company have always been satisfactory to the employers in optimizing their studies and providing innovative and problem-solving executive methods in accordance with the requirements of the designs. New and dynamic management, commitment to human values and meritocracy and the indigenization of world-day technologies are among the achievements of VestA.

VestA has started its international activities since 2009, officially registered in Iran to enhance their expertise by involving Talented Iranian engineers to carry out international projects in larger scales. VestA has been proud of cooperation with international organizations and internationally recognized NGOs among which some can be named as UN-HABITAT, World Bank, and Aga Khan Agencies in Afghanistan, Pakistan, India, Tajikistan, Kyrgyzstan, Bangladesh, India, Iran, and Turkey



Main **Clients**















































Area of **Expertise**

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.

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.

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

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 costestimation, 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.

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.

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.

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.

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.





Outstanding **Projects**



Consultancy Services for Multi-Hazard Structural and Non-Structural Evaluation of Selected Hospitals & Health Facilities in Islamic Republic of Iran - Improving the Resilience of Hospitals (BEHTAB)

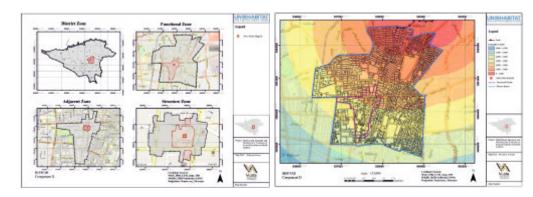
Location: Tehran, Iran

Project Consultancy Duration: 8 months

Project Clients: UN-HABITAT, UNDP

Started Date: 2019

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 Prioritized Investment Plan for Critical Assets in Dhaka

Location: Dhaka, Bangladesh

Project Consultancy Duration: 24 months

Project Clients: World Bank, RAJUK

Started Date: 2019

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.

Services 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



5,000,000 m2

Rapid Visual Survey

1,000,000 m²

Preliminary Engineering Assessment

400,000 m2

Detailed Engineering Assessment





Detailed Design Preparation For Reconstruction & Rehabilitation For Public Schools

Location: Imereti, Georgia

Project Consultancy Duration: 9 months

Project Clients: World Bank, Municipal Development Fund of Georgia

Started Date: 2021

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.

Services Provided:

• 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





Analytics in support of YCDC to develop strategy for seismic risk reduction for public buildings Yangon

Location: Yangon, Myanmar

Project Consultancy Duration: 6 months

Project Clients: World Bank, YCDC

Started Date: 2021

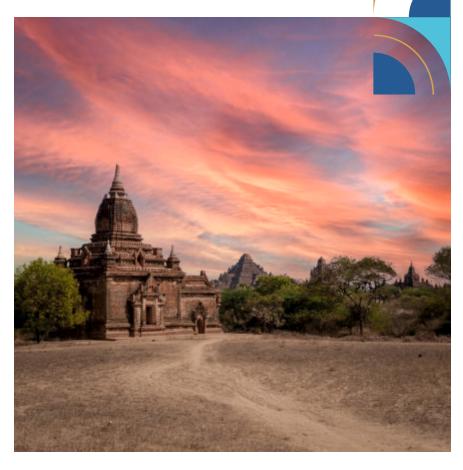
Myanmar as one of the largest countries in Southeast Asia is one of the world's most disaster-prone countries exposed to multiple hazards, including floods, cyclones, earthquake and landslides. Despite the existence of the risks due to potential hazards, the critical infrastructure and buildings in Myanmar are quite vulnerable and lack of public awareness has led to low demand for buildings with proper features.

The main objective of the project 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.

Services 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

784 km2 5.4 Million Population Action Area





Building Vulnerability and Risk Assessment of Faizabad City

Location: Faizabad, Afghanistan

Project Consultancy Duration: 6 months

Project Clients: Aga Khan Agency for Habitat (AKAH)

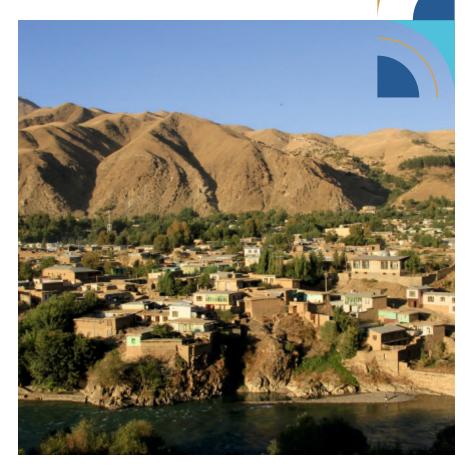
Started Date: 2019

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 high-risk 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.

Services Provided:

- 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 the buildings for all possible Seismic hazards level and earthquake scenarios.
- Providing risk/loss maps for the expected buildings losses.
- Developing the GIS-based database concerning Socio-Economic Data of Faizabad
- Develop economic loss analysis model

1700 Ha 22,500 Households Action Area





Consultancy Services for Technical Supervision of Retrofitting Works for Aga Khan

Location: Khoroq, Tajikistan

Project Consultancy Duration: 6 months

Project Clients: Aga Khan Education Service (AKES)

Started Date: 2017

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 Khoroq, 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.

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
- 2. Preliminary design of retrofitting and rehabilitation of the structures assessed and found suitable for retrofitting
- 3. Final design

8526 m2 **Educational Facilities** Action Area





Concept Design Consultancy Services for Atlas Plaza Mixed-Use Complex

Location: Tehran, Iran

Project Consultancy Duration: 6 months

Project Clients: Setareh Atlas Pars Co.

Started Date: 2017

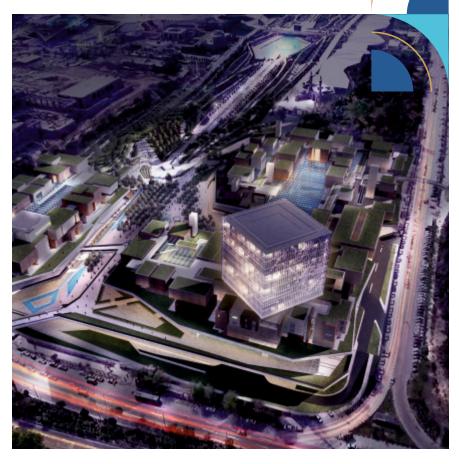
The SETARE ATLAS PARS project is a complex commercial facility (area of 74,800 m², gross area of 450,000 m²) including Hotel, Office and Shopping mall near Hagani metro station.

Block A: (North West Zone) – is in pre-concept design phase (not constructed).

Block B: (East Zone) - Construction in Zone B has already finished. Zone B consists of two buildings, B1 and B2. The dimensions approximately measure 165 m X 121 m. B1 reaches a height of 53.2m from the basement B6. B2 reaches a height of 48.5 m from the basement B6. Both buildings Have 9 stories. Typical story height in basement levels are 3.80 m and in upper levels are 6.80 m. Grid spacing in X direction is mostly about 13.5m and in Y direction is mostly about 11.5m

Block C: (South West Zone) - The dimensions approximately measure 105 m X 134 m. This block is also constructed except for two upper levels. There are four structural cores in this building, but two core walls at the left of the building reach L4. The top of the roof reaches a height of 51.3m from the basement B5 floor. Block C consists of 4 stories and a basement with 5 floors with total area of about 113000 m². B1 level is constructed in two elevations (-6.00, -3.70). Typical story height in basement levels are 3.80m and in upper levels are 6.80m. Grid spacing in X direction is mostly about 8.5 to 13.5m and in Y direction is mostly about 10.5 to 11.5m. At the roof level there is a truss with 25.5m span length.

450,000 m2 Action Area **Building Type**





Consultancy Contract for Technical Services for Structural Vulnerability Assessment and Seismic Retrofitting Design for Four AKDN Facilities

Location: Tehran, Iran

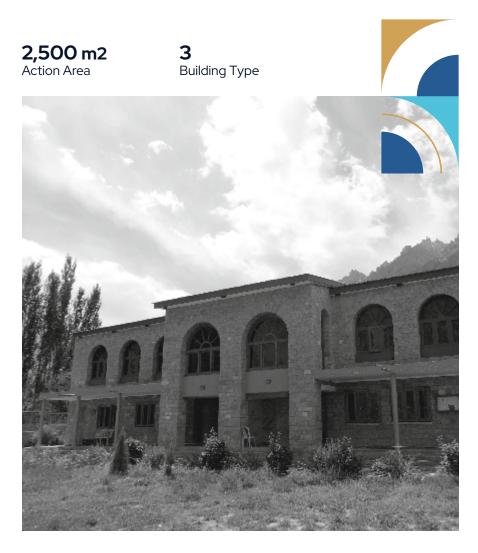
Project Consultancy Duration: 1.5 months

Project Clients: Focus Humanitarian Assistance

Started Date: 2016

Focus Humanitarian Assistance (FOCUS) is an international group of agencies established in Europe, North America and South Asia to complement the provision of emergency relief, principally in the developing world. It helps people in need reduce their dependence on humanitarian aid and facilitates their transition to sustainable self-reliant, long-term development. FOCUS is affiliated with the Aga Khan Development Network, a group of institutions working to improve opportunities and living conditions, for people of all faiths and origins, in specific regions of the developing world.

Following many previous successful intiatives to assist people struck by natural and manmade disasters in South and Central Asia, FOCUS awarded Protek Yapi a contract to conduct a structural assessment and retrofitting design of six AKDN/AKHS facilities including clinics and hospitals in Kabul, Baghlan, and Badakhshan Province. The study entails conducting detailed seismic vulnerability assessment of level 2/3 survey including non-structural element and non-structural retrofitting.





Consultancy Services for the Structural Audit and Feasibility studies of Selected Aga Khan Development Network (AKDN) Facilities - 328 selected facilities

Location: Pakistan, Tajikistan, Afghanistan

Project Consultancy Duration: 6 months

Project Clients: AKF (Aga Khan Foundation), DRMI

Started Date: 2015

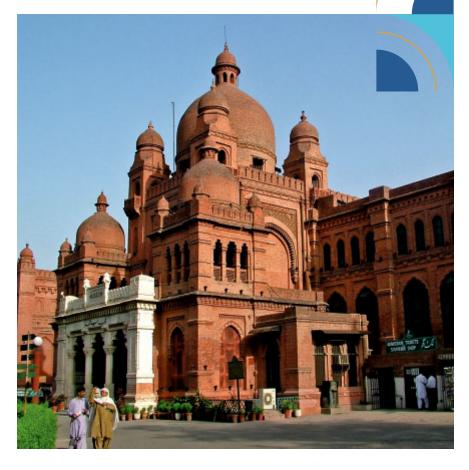
The goal of the project was to strengthen the relevant disaster management capabilities of the faculties of the Aga Khan Development Network (AKDN) in Central and South Asia in order to risk reduction activities in the region.

- Assess seismic risk
- Reduce disaster risk
- 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.
- Data Collection
- Surveying and geotechnical analysis
- Assessment and verification of actual status of the structure
- Preliminary analysis for retrofitting and rehabilitation of the structure

159 Religious Education Center Health Buildings



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