



GOVERNMENT
OF KHYBER
PAKHTUNKHWA

KHYBER PAKHTUNKHWA
**INTEGRATED TOURISM
DEVELOPMENT PROJECT (KITE)**
PROJECT MANAGEMENT UNIT (DoT)

Department of Tourism, Culture, Sports, Archaeology, Museums & Youth Affairs

Terms of Reference (TORs)

Pakistan

**Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE)
Department of Tourism**

**Project No. P163562
Credit No: IDA-64620**

**Hiring Consulting Services for Revamping & Upgradation of Tourism
Management Information System (TMIS), Web & Mobile Applications of
Khyber Pakhtunkhwa Tourism Department**

Activity Reference No: PK-KP DOT-240019-CS-CQS

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Terms of Reference (TORs)

Tourism Management Information System (TMIS) (Phase-II)

1. Background

Department of Tourism through the support of Economic Revitalization of Khyber Pakhtunkhwa (ERKP) funded by Multi Donor Trust Fund (MDTF) of the World Bank, developed the first ever Tourism Management Information System (TMIS) for Khyber Pakhtunkhwa province. The TMIS included web and mobile applications for TCKP and Directorate of Tourism Services (DTS), Human Resource Management Information System (HMIS) and Financial Management Information System (FMIS) for Tourism Department.

Kptourism mobile application was developed on the idea of tourism centric social media that include the features of trip advisor, social media, google maps, YouTube, and a channel of communication between the public and the TCKP. A web version was also developed that allowed users to explore various functions such as point of interests, district wise attractions and events etc.,

However, with the devolution of TCKP and establishment of Khyber Pakhtunkhwa Culture & Tourism Authority (KP CTA) the business flow is now modified and existing MIS and webpage requires upgradation.

KITE project envisages to hire the services of a consultant (firm) to seek revamping of Tourist Management Information System and Kptourism webpage.

2. Objectives:

- i. Revamping of design for both web and mobile application of “kptourism” for enhanced graphics design, and User experience.
- ii. Provide a single platform to users to plan their trips.
- iii. Allow frequently visiting tourists for sharing events, POI etc.
- iv. A platform for local businesses to showcase their product.
- v. Allow top level management to see trends and tendencies of tourism sector.

3. Scope of Work:

a. General requirements for revamping:

The following new features are required:

- A revamping of design for both web and mobile application of “tourism” using gamification concept. This design includes both graphics design, and User experience.



- A trip planner which takes input from the tourist and suggest relevant places and attractions for visit.
 - There should be separate place for both national and international Vloggers.
 - The revamped mobile and web application must have a system for Bounties or coupons or offers to frequently tourists for sharing our events, POI etc.
 - A platform for local businesses where they can advertise their new product, services etc.
 - The mobile app should include customizable postcards that users can complete and send to their friends and family via email, or post to social networking sites.
 - Multilingual, Urdu, and Chinese in addition to URDU.
 - Various top level management dashboards such as DG, secretary tourism.
 - The DTS issue new license or renew license once the inspector visits the business location and verify certain parameters physically and then report it back to DTS office. A mobile application should be developed to verify the parameters of each business while visiting physically and report it to DTS in real time via Internet.
 - Putting all DTS data such as hotels, rental cars, restaurants and travel agency on the web with their contact details and mapping it on the Google.
 - HR MIS revamping in ACR, Task Management, File Tracking etc
 - FMIS Revamping and incorporating budget.
 - Development of Inventory MIS and integrating it with FMIS
 - Development of E-Commerce System
 - Documents Digitization System
- b. Technology stack Requirements for revamping:**
- The current webs portal is designed and developed in traditional front-end technologies. However, it is required by the consultant/firm to migrate it to front end framework such vue.js or react.js.
 - The backend technology i.e., node. Js/express.js should remain same. However, the database should be combination of both SQL and noSQL.
 - For security latest and trending authentication mechanism must be deployed to avoid penetration attacks.
 - For Reliability, two separate servers must be maintained such as testing and production servers.



- For scalability, the concept of load sharing and balancing must be deployed. The application and services should be on the separate servers.
- c. Third Party Tools:**
 - Third party tools are required for the web and mobile application of the TMIS for period of two years. These tools are SMS notification such as firebase, email notification such as sendgrid, weather API such as IBM, maps such as Google maps and any other if required so.
- d. Development of E-commerce System & Revamping/ Integration of Cultural Mapping with current MIS:**
 - i. Visual Art & Crafts**
 - Visual Arts
 - Crafts
 - ii. Cultural Industries**
 - Identification of Artifacts
 - Culture Industries Hubs
 - Cultural Food
 - KP Display Center Islamabad (E-Commerce Software)
 - Cultural Artifacts
 - Cultural vs Conv Industries
 - Crafts Now and Then
 - iii. Languages & Literature**
 - KP Languages
 - Literature
 - Literature Organizations
 - iv. New Media**
 - Press Release
 - Audio / Video Archive
 - Podcast
 - Broadcast
 - Online Art Gallery and much more



e. Technical

- Converting front end from traditional to frameworks such as vue.js, nuxt.js or react.js
- Normalizing the database to accommodate POIs, and merged districts.
- For notification using real time database such as firebase.
- Integration of Culture and archeology databases.

f. Technology stack:

The web portal, and dashboards must be designed and develop in open-source technologies to avoid recurring licenses. The technology stack must be;

- Node.js, express.js for backend
- Vue.js or react.js for front end
- MySQL or PostgreSQL as database

g. Dashboards:

There will be in total four types of dashboards such as;

- For Secretary Tourism
- For DG KPCTA
- For IT team of DoT/KPCTA
- For other attached departments of DoT and KPCTA

h. Hosting:

The system is already hosted in KP Data Centre. For upgradation of system requisite hardware is proposed below at point No. 4.

i. Security:

The portal also must support and maintain up-to-date data and system security protocols. The proposed software should fully follow the OWASP recommendations to prevent latest identified security vulnerabilities including but not limited to:

- Inject flaws
- Broken Authentication
- Sensitive data exposure
- XML External Entities
- Broken Access Control
- Security Mis-configuration
- Cross-site scripting XSS
- Insecure deserialization



- Using components with known vulnerabilities
- Insufficient logging and monitoring

j. Training and Manuals:

- Assess DoT and its other attached departments staff capacity for database administration, mobile applications maintenance and website maintenance, including regular content uploading and changing in site functioning and features and come up with training package for IT and communication staff.
- Developed technical manuals for the IT staff for further development if any.
- Developed user manuals for various use cases that will be disseminated on the web portal.
- Design and develop a detailed plan for website maintenance, such as backup, restore, monitoring website for system integrity.
- Provide technical support service and advice for the website maintenance as required.

4. Hardware Requirements¹:

- Latest IOS Tablets for IOS App Testing
- Latest Android Tablets for Android App Testing
- GPS Devices for offline coordinates for POIs & Attractions of KP
- SSD 4TB for data center

5. Data Entry

- The consulting firm should provide 3 Project Associates that should work full time for the period of 1.5 year at KPCTA.
- The Project Associates should have good typing speed and excellent knowledge of Google maps.
- The Project Associates would be tasked to enter Point of interest, tourism destination, E-Commerce entries and other content on the portal.

6. Maintenance and Support

- The consulting firm should provide technical support for the period of 1.5 years.
- The support should be made available on site if necessary.

¹ The specification and quantities of the proposed testing devices to be made by the firms ensuring computability with the upgraded/developed TMIS.



7. Methodology:

In close collaboration with key stakeholders in government offices (focal persons), DoT and its attached departments, the consultant will develop a fully functional, user-friendly web portal, mobile applications, admin portal and dashboards TMIS.

While it is responsibility of the consultant to adopt the most appropriate approach to the work, the following proposal aims at securing a minimum guidance for a relevant website / database/dashboard. It is expected that the consultant uses an inclusive, comprehensive, and participatory methodology. Information gathering and analysis should be approved by the multi-stakeholder consultation and other. The consultant is also expected to consult other databases/websites available that aim same functionalities around the world.

8. Deliverables:

- i. Revamping of web portal (kptourism.com)
- ii. Web application with above functionalities
- iii. Android mobile application with above functionalities
- iv. iOS mobile application with above functionalities.
- v. Training of Staff
- vi. Maintenance for the period of 1.5 years.

9. Terms of Payment:

S. No.	Items / Output / Deliverable	Payment (%age of Contract Value)	Condition for Release
1	Requirement Planning, Site Definition & Design Prototype (SRS)	15%	Written acceptance of the delivery by client
2	Revamped web application	15%	Training manual Live demonstration certificate of completion
3	Android and iOS application	20 %	Live demonstration, certificate of completion
4	Integration of web and mobile applications	40%	Integration of web and mobile applications and live demonstration, certificate of completion
5	Training of Staff	10%	On Approved of training report

10. Proprietary Rights:

The Client will have all proprietary rights of the structure, layout, graphics and color scheme



of the web Portal revamped and developed by the consultant. The consultant will be required to practice strict confidentiality in development fall the relevant material in any form whatsoever and will make sure that no part or whole of the document is shared with any irrelevant person/organization without the permission of the Sponsor, either in printed, electronic or soft form.

11. Evaluation Criteria:

Selection Criteria	Points
Relevant Experience: <ul style="list-style-type: none">• Demonstrate experience of developing & executing functional user-friendly web and mobile applications for public/private sector including but not limited to financial institutions, travel & hospitality, food & beverages, and other similar industries• Experience in executing software development regarding government e-facilitation projects.• Experience in executing IT integrated software development projects i.e., projects incl. supply, installation, and commissioning of ICT infrastructure along with software development.	60
Technical and Managerial capability of firm	20
Authorization and Licenses: <ul style="list-style-type: none">• Valid authorization ISO 9001:2015/CMMI-• Valid authorization with Pakistan Software Export Board (PSEB)	10
Core business and years in business along with Experience with donor-funded projects.	10
Total Points	100

12. Duration of the Assignment:

The consultant firm shall complete the tasks assigned over a duration of Twelve (12) calendar months. With an estimated key expert

13. Selection Method:

Selection will be made in accordance with the Consultant's Qualification-based Selection (CQS) method set out in the World Bank Procurement Regulations (Procurement in Investment Project Financing, Works, Non-Consulting and Consulting Services. July 2016 Revised November 2017 and August 2018). The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers", setting forth the World Bank's policy on conflict of interest.

Working Arrangements:

The consultant will report to the Project Director, PMU KITE project.



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