

Title	Data Analysis Senior Specialist
Vacancy Number	MoPW/SRTAP/PSC/1400-54
Ministry	Ministry of Public Works
Organization	Program for Service life enhancement and construction cost reduction of roads (PSC)
Project	Sustainable Reform & Technical Assistance Project
Duty Station	Kabul
Duration	1 year
No of Jobs	1
Nationality	Afghan
Sex	Male/Female
Salary Range	NTA Salary Scale (Grade B1 - B3)
Announcing Date	22 May 2021
Closing Date	03 June 2021
Job Type	Engineering & Technology
Shift	Full Time
Job Status	Sourcing
Experience	8+ years of relevant experience

**Background:**

The Ministry of Public Works (MoPW) is responsible for the planning, design, procurement, implementation, monitoring, and maintenance of the various transportation infrastructure projects such as roads, bridges, and its relevant drainage and retaining/protection structures in the government of the Islamic Republic of Afghanistan.

On a mission to reduce project costs and extend the service life of road infrastructures in Afghanistan, the MoPW aims to embark on an initiative to *develop a web-based application/tool for bitumen grade selection* that would be accessible by the user through a web browser with an active network connection. The application will allow pavement engineers to select the most suitable, cost-effective, and less restrictive penetration grade of bitumen for a particular site based on the MoPW standards. The grade selection will primarily depend upon the levels of traffic loading and speed on the site, actual high and low pavement/air temperatures, and regional climatic conditions. The use of such an application will ensure the delivery of quality, cost-effective, reliable, safe, and durable asphalt road projects in Afghanistan. The developed web app will be primarily owned/administered by the MoPW and made available for online users.

The functioning manner of the web app will be such that the user would simply enter the essential

input parameters: coordinates of the location, low and high annual air temperatures, traffic loading in ESAL, and design traffic speed. Automatic adjustments of penetration grade (grade changing) for traffic and temperature variations would take place and the calculated penetration grade will be displayed.

The ministry intends to form a team of highly experienced experts with diverse affiliations and extensive partnerships with industry and government organizations that will closely collaborate to accomplish the above goal effectively and within the specified timeframe.

### **Scope of Work/Job Summary:**

The MoPW intends to engage a professional *Data Analysis Senior Specialist* for the application/tool developing team with proven web/digital data analytical experience focused on managing data, in particular the climatic/traffic data, for various engineering purposes.

The incumbent will work under the direct supervision, guidance, and direction of the International SME and leadership of the Team Leader/ Project Manager and will be responsible to source, collect, analyze, process, and interpret the climatic/traffic data on which the application/tool for bitumen grade selection will be based. The position holder will make sure that the electronically and manually collected traffic, climate, and other required data types obtained from various sources is authentic and accurate. The candidate will provide capacity developing interventions to the MoPW staff to enable them with data processing, analyzing, and management skills.

The selected candidate will remain active through all phases of the application/tool development and work alongside the team and in close coordination with senior management in the MoPW. The role must directly report to the Project Manager/Team Leader.

### **Duties & Responsibilities:**

The duties and responsibilities of the *Data Analyst* will include but not be limited to:

- Work in close collaboration with team members to achieve the shared objective of designing a sophisticated application/tool for the selection of bitumen penetration grade;
- Code and process traffic/climate data to predict future scenarios;
- Collect, manage, and feed high-quality transdisciplinary datasets in an efficient and coordinated manner to enable the team to develop the application/tool;
- Able to use the latest analytical techniques to summarize large quantities of traffic/climate datasets and display results of analyses for the concerned tool development;
- Ensure to review the acquired/fed data for accuracy, quality, and completeness;
- Identify relationships and trends in the processed data;
- Assist members of the team to acquire, develop, and incorporate meteorologic and temperature contour maps into the application/tool;
- Perform data cleansing;
- Define and propose appropriate traffic/climate-related input parameters to be considered for the calculation and selection of suitable bitumen grade;
- Communicate with the Afghanistan Meteorological Department (AMD), weather stations, traffic department, and various other established entities to collect the required data;
- Prepare analytical reports using various computer programs/software;
- Inspect the process of application/tool development and ensure the quality;
- Ensure that the developed application/tool is user-friendly and easy to use;
- Ensure that the final product functions precisely displaying outputs without any technical/engineering fault;

- Participate in technical meetings with stakeholders and team members on regular basis;
- Provide workshops on data collection, analysis, and interpretation for the capacity building purpose of regional and provincial engineers;
- Demonstrate a good understanding of pavement materials with thorough knowledge of the relevant MoPW and International standards;
- Analyze and resolve technical issues and propose optimum solutions promptly; and
- Undertake other tasks related to the design/development of the application/tool either required or assigned by the senior management.

### **Skills & Competencies:**

- Hands-on experience with Statistical and enterprise database software: EarthSoft EQUIS, MS SQL Server, Oracle, and MS Access;
- Experienced using MS Excel to manipulate, organize, and prepare datasets to be imported into a database and for final reporting and perform statistical analysis;
- Experienced in the planning, design, and implementation of mobile applications for field data collection is advantageous;
- Experienced in statistical theory/methods and well-versed in data & systems management;
- Demonstrate experience of working in collaborative coding environments with multiple team members;
- Experience with Server management;
- Have a basic understanding of pavement materials, and their performance correlation with traffic and climate variations;
- Experienced in data collection, analyzing, interpretation, and modeling;
- Fluency in spoken and written English language and excellent communication skills;
- Able to coordinate with co-workers and meet deadlines;
- Experienced in troubleshooting electronic or communications equipment;
- Able to manage conflicting priorities; and
- Demonstrate leadership in handling and working with multidisciplinary teams.

### **Job Requirements:**

- An undergraduate degree holder in Civil/Software engineering, IT or a Master's degree in any field closely related to the duties of the position (preferred) with specialization in climatic/traffic data management;
- Having at least **8 years** of related experience within reputable organizations mainly focused on employing data analysis techniques and tools to source, process, and present data for various engineering purposes;
- Acquaintance with various data management/analysis and statistical analysis software/programs is desirable;
- A Candidate with a proven employment record in a similar role within the regional/international organizations is highly preferred;
- Proven organizational and problem-solving skills;
- Excellent verbal and written presentation skills;
- Able to travel to remote areas all over Afghanistan and work as part of a team.

### **Required Documents:**

- CV with a cover letter for the relevant position;
- Copy of verified Degree by the Ministry of Higher Education;

- Copy of verified Afghan ID Card (Tazkera) or Passport;
- Copy of verified last Posting Contract; and
- Copy of other relevant documents that support the application.

### **Submission Guideline:**

Interested candidates are requested to forward their applications, detailed CV and other required documents to [jobs.mopw@yahoo.com](mailto:jobs.mopw@yahoo.com) indicate the vacancy number (**MoPW/SRTAP/PSC/1400-54**) and the post title (**Data Analysis Senior Specialist**) in the subject line when applying by email to the Human Resource Unit – Sustainable Reform and Technical Assistance Project of Ministry of Public Works (MoPW) at Kabul, Afghanistan.

**Address:** SRTAP Office, Railway Building, Kabul-Jalalabad Rd., opposite KMTC, MoPW, Kabul, Afghanistan.

Note: Only short-listed candidates will be contacted.