

### **REPUBLIC OF KENYA**

### STATE DEPARTMENT FOR MINING

# MINISTRY OF MINING, BLUE ECONOMY AND MARITIME AFFAIRS

Expression of interest (EOI) for Consultancy services for development of royalty management system – Tender No. MMBE&MA/SDM/009/2023-2024

Closing/ Opening Date: 14<sup>th</sup> September 2023

# **Definitions of Terms**

Term	Definition
API	Application Programming Interface
СВК	Central Bank of Kenya
FAQ	Frequently Asked Question
GDP	Gross Domestic Product
GUI	Graphical User Interface
ILMS	Integrated Lease Management System
IT	Information Technology
KES	Kenya Shilling
KRA	Kenya Revenue Authorities
MAU	Mineral Audit Unit
MCI	Mining Contribution Index
ОТМСР	Online Transactional Mining Cadastre Portal
PIN	Personal Identification Number
RDBMS	Relational Database Management System
RMS	Royalty Management System
SLA	Service Level Agreement
USD	United States Dollar

# Contents

1	Int	oduction	.4
	1.1	RMS Project Background and Objectives	.4
	1.2	Status of the Kenya Mining Sector	.1
	1.2	Current Royalty Administration Process	.1
	1.2	2 Current Royalty Management Process	.1
	1.3	The Proposed Royalty Management System	.2
	1.3	Royalty management system: Functional capabilities	.2
	1.3	2 Payment Gateway	.4
2	Teo	nnical/ Non-functional specifications and compliance	.5
	2.1	Requirements for consultant's eligibility	.5
	2.2	Minimum Expertise Required	.6
3	Pro	ect Implementation	.6
	3.1	Milestones and Deliverables	.6
	3.2	Installation & Commissioning (Handover) Plan	.7
	3.3	Payment schedule	.7
4	Ap	endices	.8
	4.1	System Specifications - Detailed Functional and Technical Requirements	.9
	4.1	Detailed Functional and Technical Requirements	.9
	4.1	2 Data capture/fields requirements1	.9

#### 1 Introduction

#### 1.1 RMS Project Background and Objectives

The State Department for Mining in the Ministry of Mining Blue Economy and Maritime Affairs came into existence through the Executive Order No. 1 of 2023. Its mandate and vision are to unlock the country's full mineral potential and thus increase the overall contribution of the minerals to Kenya's GDP from the current one percent to a target of 10% by the year 2030. In Kenya, mineral royalties are charged on the gross sales value of the minerals based on the royalty rates set. A royalty is a compensation paid to the government by the mineral right holders for the right to exploit mineral resources.

The new mining legislative framework which was overhauled in 2016 provided for tools such as the online mining cadastre system to enhance transparent and accountable minerals governance. The State Department for Mining has been working on developing a digital platform for managing mineral royalty in accordance with the new law. Although much progress has been made on the digital mapping of mineral resources and rights holders through the aerial survey program and cadastre system, little progress can be seen on the automation and digitization of the operational processes for mineral revenues collection, particularly royalty

Operations in the mining sector are continually getting more complex fueled by the growth of the country's minerals portfolio and reserves as more mineral discoveries get underway. This situation has led to the need for the Ministry to invest in the automation of mineral production and sales data collection, monitoring and reconciliation of royalty payments across the mining value chain. Currently most of these activities are carried out manually leading to players in the mining sector evading or underpaying royalty due to ineffective internal mechanisms at the ministry to track and enforce the payments. The digital royalty management platform to be implemented is expected to support efficient management of royalty thereby promoting the much needed accountability, transparency and reporting.

The State Department for Mining aims to boost mineral contributions to the GDP and enhance transparent governance. This will be achieved through automating mineral production, sales data collection and royalty monitoring to ensure equitable industry participation. The proposed digital royalty platform will further accountability and transparency.

#### **1.2** Status of the Kenya Mining Sector

#### 1.2.1 Current Royalty Administration Process

#### **Institutional Framework**

The Directorate of Mines is responsible for the effective and efficient management and development of mineral resources in the mining sector. The following units within the directorate play key roles in the management of royalty:

- The Licensing Division: This office manages the Mining Cadastre System that is used for managing licensing applications and renewals for mineral and dealing rights and export of minerals.
- The Mineral Audit Division: This division is responsible for ensuring royalty are paid as per the laid-out regulations. This also entails undertaking measures to counteract mineral smuggling and royalty evasion. The unit carries out monitoring and audit activities on the minerals produced and exported in the country. This also includes auditing capital investments and operating costs by mining companies.
- The Mineral Rights Board: This is an institution created by the Mining Act to advise the Cabinet Secretary on grant, rejection, retention, renewal, suspension, revocation, variation, assignment, trading, tendering, or transfer of Mineral Rights Agreements. Other roles include regulation of fees and royalty to be paid on different minerals.

#### 1.2.2 Current Royalty Management Process

The royalty management process begins after an approved miner acquires a license and commences extraction activities. Monitoring continues after the mineral goes into processing – either by the miner (if they have capacity) or sold to a processing dealer who refines the extracted mineral into a final product for market consumption. The market can be either local or export to international markets. Liability for royalty payment rests with the license holder. In case of royalty payment default by the miner, the liability cascades upwards to the next party in the value chain.

Royalty on minerals sold to the local/domestic market are due within sixty (60) days from the date of the transaction (the credit period could be higher for large scale miners). This credit period has resulted in low royalty collection from domestic sales since the ministry is lacking

adequate capacity and resources to enforce these deadlines. Consequently, applicable penalties on late or defaulted payments have been difficult to track or enforce.

Mineral exports however are relatively easier to manage since an export permit is required for each sale. When applying for the export permit its mandatory to submit details of the mineral being exported, sale price, purchaser details and applicable royalty. The Ministry then validates the information submitted by the miner and verifies that royalty has been paid before issuing the permit. Reporting and reconciliation is carried out on a monthly and quarterly basis through the Cadastre system for production, sales and the royalty payments.

### 1.3 The Proposed Royalty Management System

This section details the functional capabilities and technical architecture of the proposed royalty management system.

## 1.3.1 Royalty management system: Functional capabilities

The royalty management system will be web-based (online) and secure mobile front end making it possible for the ministry officers to access it from anywhere including during field visits. This is critical especially for officers dealing with artisanal and small-scale miners located in the remote parts of the country. Appropriate security measures will be implemented to ensure that sensitive and confidential information is safe from cyber threats. Access to data will also be restricted based on roles.

Functionality	Description of key Capabilities and Impact
Data	The RMS will rely on mineral production and sales data acquired from the
Management	cadastre system through an API as well as captured by users through a
and Analytics	mobile app front end. The key data capabilities to be provided by this
	system will include:
	• Flexibility to accommodate a wide range of data sets.
	• Support options to
	a) input or import data from multiple sources, including bulk uploads
	and
	b) export data for further analysis.

The section below summarizes the key functionalities of the Royalty Management System:

	• Manage data integrity through data validation controls against pre- defined criteria.
	• Provide data analytics capabilities to support reporting and reconciliation requirements of the Ministry. This will result in increased
	accuracy and less effort and time taken to undertake the reconciliation.
	• Ability to calculate and apportion royalty share for each county and community based on predefined business rules in the system.
Integration	• Integrate with the following systems.
0	Cadastre System (OMC), KRA, CBK, BRS, IPRS and Lands Registry
	and other integrations that the ministry may deem important for the
	effective use of RMS
Reporting	• The RMS must support a robust reporting module capable of supporting
	operational and analytical reporting – real-time and historical.
	• The system should be able to assess payable royalty and payment
	timelines for each transaction and licensee, calculate applicable
	penalties for transactions that have passed the payment timeline and
	determine accrued penalties over transaction periods.
	• Provide AI enabled, demand notification, pro-forma invoicing and
	receipt and inbuilt audit trailing capabilities.
	• Generate reports aggregated and disaggregated on production, sales,
	mineral grades, producers, prices, transaction dates and/or payments
	and royalty received, payable, or penalties (paid and arrears) filtered by
	a licensee, a mineral, a market (domestic or export) and or region.
	<ul> <li>Generate summary reports for inspection reports, letters by producer,</li> </ul>
	inspector, or theme (reminder, warning) and relevant licenses and
	permits.
	• The RMS must have dashboard capabilities to visualize royalty
	operation data.
	• Support automatic generation and output of reports based on pre-
-	defined criteria and frequencies and output formats.
Security and	• Proper system controls in the RMS will be essential to mitigate against
Controls	both external and internal vulnerabilities that could tamper with the
	t

	ministry's operations. The RMS control objectives should address the
	confidentiality, integrity, and availability of data.
	• The RMS must support access restriction capability to certain modules,
	data tables, screens, fields and reports through role based; user access
	based on a User Access Matrix determined by the Ministry and which
	can be updated as duties and roles change over time.
	• The system should be developed and implemented in modular form
	loosely coupled.
Audit Features	• The system must include tools for monitoring and reporting on the
	security environment through activity tracking logs.
	• Generate general and customizable audit trail reports.
	• Comprehensive audit trail capability will be necessary for the RMS.
	This will help in tracking user activities in the RMS.
Data storage	• Implement proper data backup procedures and SLAs with the service
and archiving	providers to ensure data safety and recovery options.
Notifications	• The RMS must support the ability to integrate with a communication
	gateway for email, SMS, System and any other channel the Ministry
	may require for sending alerts and notifications to its customers and
	staff.
Payment	• Royalty and accrued penalties, export permit processing fee.
Functionalities	• Any other payment.
Support	Include a functionality to maintain data for managing Export permits and
management of	movement traceability permits. This functionality will support:
permits.	• Online form where applicants can log in and fill in the required details;
	• Online review and approval of applications;
	• Send email notifications to alert applicants on the outcome of their
	applications.
	• Download of electronic permits.
	1

# 1.3.2 Payment Gateway

The system should be linked to the Government Mobile Payment Gateway (Pay Bill) to adhere to the Government Digitization agenda.

# 2 Technical/ Non-functional specifications and compliance

# 2.1 Requirements for consultant's eligibility

No.	Description of Criteria.	Requirements
1.	Number of Years the firm has been in Existence offering Similar services	Provide a copy of Certificate of Incorporation/ Business Registration in Kenya
2.	Similar Experience/ Technical Capacity	<ul> <li>Tenderers are required to demonstrate</li> <li>Experience and technical capacity by:</li> <li>a) Provide at least three (3) reference clients of similar magnitude for the tendered services.</li> <li>b) Provide at least three (3) Contracts copies, LPOs from above.</li> <li>c) Three (3) completion certificates or recommendation letters referring to the awarded contracts from the three (3) institutions.</li> </ul>
		<i>letter head of the Company that issued LPO's or Contracts.</i>
3.	Financial Performance	Certified audited accounts for a period of three years; the three years average business turnover should be minimum twice of the bid price offered by the bidder
4.	Work Methodology	<ul> <li>Submission of a brief work methodology.</li> <li>The tenderer shall provide the following; <ul> <li>a) Signed work programme</li> <li>b) Proposals on work scheduling including the response time</li> <li>c) Detailed method statement on how to carry out the intended works</li> </ul> </li> <li>d) Complete training plan for technical, super users and end users Data migration plan</li> <li>e) Vendor support mechanism/ plan after go-live.</li> <li>f) Clear and concise project implementation /execution plans with logical sequence of tasks and milestones</li> <li>g) Project organization chart with clear roles, responsibilities and reporting lines.</li> </ul>

Interested and qualified firms must meet the following criteria;

### 2.2 Minimum Expertise Required

The members of the team will have the skills and experience necessary to undertake the range of tasks set out in this Terms of Reference. Each individual on the team must be personally available to do the work as and when required. The Consultant will be held accountable for ensuring project deliverables and for the professional conduct and integrity of the team. The consulting firm may propose the best team combination to achieve the overall goal. To be considered for the assignment, proposed team members should submit their respective CV's .and certificates

Key Experts mandatory Certifications and Skills

- 1. Lead Expert (1)
  - At least a Bachelors' degree in ICT or related field with at least 7 years' experience in implementing similar or related system development.
  - Provide evidence of recent relevant projects delivered
- 2. Other key experts (3)
  - The experts should demonstrate experience in System design/Software Development, database development, system integration and administration
  - Minimum of a degree in ICT or related field and at least 5 years' experience in similar assignments

#### **3 Project Implementation**

The Bidder must attach a detailed system implementation methodology and work plan.

#### 3.1 Milestones and Deliverables

- a) Inception Report giving a detailed understanding of the assignment, detailed work plan with the resource requirements schedule.
- b) Functional Requirements Design.
- c) Installed and commissioned Royalty Management System
- d) Training of administrators.
- e) System and User Manuals in hard and soft copy
- f) Risk management report
- g) Final project and handover report
- h) Warranty of 2 year from the time the system is commissioned i.e. User and System support

- i) Proposed Hardware and Operating system requirements and specifications
- j) Utility Requirements (other components required for the system to function properly)

### 3.2 Installation & Commissioning (Handover) Plan

Minimum requirements for the installation and commissioning to include: - go-live tests to be undertaken, bidder staff on premise for go-live, period of post go-live, industry sensitizations where applicable. Installation and Commissioning of the solution must be done on the site. A detailed plan must be submitted with timeliness.

### 3.3 Payment schedule

Payments shall be made upon sign offs on specific milestones by the users and inspection done by the project implementation team. The milestones are specified below:

- a) 10% -Payable upon submission and acceptance of an Inception Report
- b) 40%-Upon submission and acceptance of Proto type design report.
- c) 30% -Payable upon development user acceptance Test deployment in Test Server
- d) 10% Training sign-off Data migration and go live
- e) 10%-Retention fee payable six (6) months after go live

### 3.4 EOI SUBMISSION:

Eligible firms are to submit their clearly labelled "EXPRESSION OF INTEREST (EOI) FOR CONSULTANCY SERVICES FOR DEVELOPMENT OF ROYALTY MANAGEMENT SYSTEM – TENDER NO. MMBE&MA/SDM/009/2023-2024" by hard copy to be deposited in the Tender Box situated on 2nd Floor, Works Building so as to be received not later than 10:00 a.m. East African Time on 14<sup>th</sup> September, 2023.

The Envelop should be clearly addressed to:

#### The Principal Secretary State Department for Mining Ministry of Mining, Blue Economy and maritime Affairs Public Works Building, Ngong Road P.O. Box 30009-00100 <u>NAIROBI</u>

### **EOI Opening:**

The EOI documents will be opened in the presence of bidders' representatives who choose to attend at Works Building, 3rd Floor, Ministry Boardroom on 14<sup>th</sup> September, 2023 immediately after closing.

This EOI is also available in the Government of Kenya Tender Portal <u>www.tenders.go.ke</u> and in the Ministry's website <u>www.mibema.go.ke</u>.

The State Department for Mining reserves the right to accept or reject any or all applications.

# 4 Appendices

# 4.1 System Specifications - Detailed Functional and Technical Requirements

# 4.1.1 Detailed Functional and Technical Requirements

REF	REQUIREMENT	
1.1	Production Module Requirements	Bidder's
		Response
1.1.1	Production Module Requirements	
1.1.2	Ability of the system to capture production data. The details of the	
	production data captured are defined in the data capture details section.	
	The user required to capture the data should be able to:	
	a) Manually input the data into the system; or	
	b) Upload the data captured from an external file e.g. excel file etc.	
1.1.3	The system should be able to produce production reports. Users should	
	be able to filter the reports by different parameters such as:	
	a) Time; monthly, quarterly, yearly	
	b) Mineral categories	
	c) Location: county, communities, village, etc	
	The report should capture at least the following data: details of the	
	licensee, production details and reporting period.	
1.1.4	Ability of the system to generate reports on non-compliant miners for	
	the Ministry to take further actions.	
1.2	Sales Module Requirements	
1.2.1	Ability of the system to capture sales data. The details of the sales data	
	capture are defined in the data capture details section. The user required	
	to capture the data should be able to:	
	a) Manually input the data into the system; or	
	b) Upload the data captured from an external file e.g. excel file etc.	
	In addition, the system should capture a field to distinguish sales	
	between:	
	a) Domestic/local; and	
	b) International/export.	

REF	REQU	JIREMENT	
1.2.2	The R	MS system should have a capability to record transactional data	
	related	to production, sales and royalty payments against each licensed	
	party.	Against this data and the corresponding business rules on royalty	
	the sys	stem will produce real-time reports indicating applicable royalty	
	charge	s for each dealer/miner.	
	Provis	ion will be made in the system to enable capturing of the	
	produc	ction/sales/payments data partner systems.	
1.2.3	The sy	ystem should be able to produce sales reports based on the Sales	
	data ca	aptured. These reports can be monthly, quarterly, yearly, or for a	
	user de	efined period. The report should capture at least:	
	a)	The details of the licensee;	
	b)	Details of the purchaser;	
	c)	The mineral sold and quantity;	
	d)	The value/price at which the mineral was sold;	
	e)	Quality of the mineral	
	f)	The date of sale/transaction;	
	g)	Whether the sale is domestic or export;	
	h)	System calculated royalty liability;	
	i)	Any royalty payments made for the sale;	
	j)	Variances in royalty;	
	k)	Accruing penalties; and	
	1)	The Period of running the report.	
	The sa	les report should be able to filter by at least:	
	a)	Miners or dealers;	
	b)	Location – e.g. county, village	
	c)	Type of mineral	
	d)	Variances in royalty payable and paid.	
	e)	Due dates for royalty payment	
1.2.4	Ability	of the system to generate reports on noncompliant dealers for the	
	Minist	ry to take further actions.	
	1		

REF	REQUIREMENT	
1.2.5	Ability of the system to allow upload of field inspection reports for reconciliation reporting purposes.	
1.2.6	The system should provide a functionality for generating aging reports on royalty payments. Ministry should be able to run the report for a miner or dealer showing any overdue royalty and the applicable penalties.	
1.3	Royalty Rates Requirements	
1.3.1	Ability of the system to assign different royalty rates to different minerals as defined in the data capture details.	
1.3.2	The system should be able to apply the appropriate royalty rates to any transactional sale as defined above in the sales requirements.	
1.3.3	The system should be able to apply royalty rates customizable by mineral and by year depending on the period any report is run that is required to calculate royalty e.g. between 2017-2018 the rate is 8% on gold; between 2019-2022 the rate is 9% on gold etc.	
1.3.4	The system should be able to apply royalty rates customizable by value of mineral depending on the period any report is run that is required to calculate royalty e.g. if sale price of a mineral is less than 50USD/ton, rate applicable is 5% but if sale price is more than 50USD/ton, rate applicable is 8% etc.	
1.3.5	The system should be flexible to allow application of royalty rates using other customization configurations as defined by the Ministry.	
1.3.6	In summary the RMS should be flexible to accept static rates whether in percentages or fixed rate or the sliding ruler/scale method where the rate varies with the value of the mineral at the time of sale.	
1.4	Integration Requirements	

REF	REQUIREMENT	
1.4.1	The system should support ability to easily integrate with existing and future internal and external systems based on open integration standards and APIs. The ministry uses the Cadastre system to administer and maintain mineral rights license application and licensee details. The RMS system will require to seamlessly integrate with the Cadastre system to, among other requirements, share master data on license holders, mineral reserves/locations, minerals, etc (see section 5.1.2. on data requirements).	
1.4.3	<ul> <li>Ability to integrate with the Cadastre system is critical as it is currently the core system holding the ministry's data. It holds the miner/dealer details, production reports and sales reports that are key inputs to the RMS.</li> <li>The system will be required to support other planned and future integration requirements with external stakeholders such as: <ul> <li>a) KRA – which will provide services for collection and remittance of mineral royalty on behalf of the Ministry</li> <li>b) CBK – which will provide rates such as interest on late or defaulted payments based on the prevailing CBK interest rates.</li> <li>c) Other integrations will be identified and assessed during the requirements validation phase.</li> </ul> </li> </ul>	
1.5	Reporting Requirements	
1.5.1	A report filtered by any respective licensee's particulars, production, sales, and/or payments and within user specified calendar intervals.	
1.5.2	A report filtered by any respective mineral's details pf production, sales, grades, prices, royalty, producers and/or customers and within user specified calendars intervals.	
1.5.3	Reports on royalty received, royalty payable, royalty penalties (paid and arrears) by a licensee, a mineral, a market (domestic or export) and or region	

REF	REQUIREMENT	
1.5.4	Inspection reports, letters by producer, inspector, and or theme (reminder, warning)	
1.5.5	Ability of the system to generate reports automatically according to pre- defined criteria and frequencies	
1.5.6	A facility to view reports online before printing to any available printer and with quick report response time	
1.5.7	The capability to extract and print selected information, with user control of the content and format of the extract file and/or report.	
1.5.8	Ability of the system to add a new report to the list of existing reports	
1.5.9	Ability of the system to allow access to reports according to access groups	
1.5.10	Ability of the system to define reporting schedules as required by users	
1.5.11	Ability to generate ad-hoc reports on-line and to save them within the system for future use.	
1.5.12	Ability to combine multiple reports to be run as a batch e.g. production and sales reports for a given period run as one.	
1.5.13	Ability to support drill down capabilities to supporting detail in inquiry screens	
1.5.14	Ability of the user to create, attach, e-mail and print user-defined Printouts and Letters through the system. The system should also have capabilities for automated alerts such as SMS and Email to Clients, intermediaries and any other party as required by the ministry.	
1.5.15	Rich reporting capability to support analytical, operational and financial reporting.	
1.6	General IT Requirements	
1.6.1	All modules, functionalities and user interfaces must be in English language.	

REF	REQUIREMENT	
1.6.2	The system must support a web-based user interface compatible with common web browsers such as Internet Explorer, Firefox or Google Chrome.	
1.6.3	System must be flexible, scalable and easily customizable to meet the Ministry's current and future requirements.	
1.6.4	The system must support storage and retrieval of electronic (scanned) documents from within the system.	
1.6.5	The RMS should have an ability to integrate with a communication gateway (email and SMS) for sending alerts and notifications to customers and staff.	
1.6.6	The system should have online access capability (portals) that allows authorized access to external parties by the ministry to view data and reports.	
1.6.7	High system availability and performance (up to 99.99% uptime).	
1.6.8	Provide separate development, test and production environments to support testing and deployment of system changes.	
1.6.9	<ul> <li>Availability of detailed user manuals on the following areas:</li> <li>a) Technical documentation: System architecture, system administration, security architecture, database structure, backup procedures, installation/configuration manuals, toolkits/API manuals, etc.</li> <li>Functional Documentation: Quick user reference manuals, detailed module user manuals, FAQs.</li> </ul>	
1.6.10	The system should support a three-tier system architecture: Client, Application Server/Web Server, and Database Server. All servers should be situated within the ministry's premises.	
1.6.11	Compatible with the current versions of Windows, Unix and Linux operating systems. Vendor to recommend preferred options. However, it is important to note that currently all machines at the State Department of Mining run on windows operating system.	

REQUIREMENT	
Compatible with the common Hardware platforms e.g. IBM, HP.	
Vendor to recommend preferred options. However, it is important to	
note that currently most machines at the State Department of Mining are	
currently using HP as its hardware platforms.	
Ability of the system to allow remote access to system administrators for	
support purposes. This must be well documented and with audit logs.	
Ability to administer the system both at the Application level and the	
Database level.	
Availability of a user-friendly Graphical User Interface (GUI) for every	
module.	
Availability of highly parameterized configurations to facilitate flexible	
amendment of the different features and attributes developed in the	
system.	
Data Management and Migration Requirements	
Ability to accommodate a wide range of data capture fields. System	
should allow addition of more fields when need arises.	
Functionality to support data import and export, including bulk uploads	
with external applications authorized by the ministry.	
Ability to validate entered data against pre-defined criteria, such as valid	
date ranges, to ensure data quality before any transaction is accepted by	
the system for further processing.	
Ability to define list of values (drop down list).	
Ability to automatically assign sequential numbers to transactions.	
The Application software should have a centralized code management	
and control system to ensure data integrity and uniformity throughout all	
the application modules.	
Consistency checks to enforce required (mandatory) fields on a data	
entry screen before proceeding to process a transaction.	
Ability to import and export data into and out of the system, i.e. into and	
out of MS Office suite packages, text files etc.	
	Compatible with the common Hardware platforms e.g. IBM, HP. Vendor to recommend preferred options. However, it is important to note that currently most machines at the State Department of Mining are currently using HP as its hardware platforms. Ability of the system to allow remote access to system administrators for support purposes. This must be well documented and with audit logs. Ability to administer the system both at the Application level and the Database level. Availability of a user-friendly Graphical User Interface (GUI) for every module. Availability of highly parameterized configurations to facilitate flexible amendment of the different features and attributes developed in the system. <b>Data Management and Migration Requirements</b> Ability to accommodate a wide range of data capture fields. System should allow addition of more fields when need arises. Functionality to support data import and export, including bulk uploads with external applications authorized by the ministry. Ability to validate entered data against pre-defined criteria, such as valid date ranges, to ensure data quality before any transaction is accepted by the system for further processing. Ability to define list of values (drop down list). Ability to automatically assign sequential numbers to transactions. The Application software should have a centralized code management and control system to ensure data integrity and uniformity throughout all the application modules. Consistency checks to enforce required (mandatory) fields on a data entry screen before proceeding to process a transaction.

REF	REQUIREMENT			
1.7.9	Ability to automatically schedule data imports and exports to occur			
	based on defined criteria such as, time of the day and day of the week,			
	etc. from the Cadastre or any other system the ministry may identify as			
	necessary.			
1.7.10	Ability to lock records while they are being updated, for example user			
	lockout or data locking.			
1.7.11	The system should have a standard data upload utility for master data			
	and transactional data.			
1.7.12	Upload utility should be easily customizable for the implementation			
	needs.			
1.7.13	The system should be able to provide extracts for loaded data for			
	reconciliation post migration/uploads.			
1.7.14	The upload utility should be able to validate the data against the business			
	rules as configured in the system (e.g. data types, mandatory fields etc.)			
1.8	System Backup and Recovery			
1.8.1	The system supports relational databases (RDBMS) such as Oracle, MS			
	SQL etc.			
1.8.2	The system must support offsite back-up and restoration procedures			
	within a short time.			
1.8.3	Ability of the system to support automated on-line backup.			
1.8.4	Ability of the system to support automated incremental and full back ups			
1.9	Security and Controls			
1.9.1	User Accounts: Ability to support and enforce passwords best practice			
	policies such as password length/strength, reset frequency, reset history,			
	flag failed log-in attempts, etc.			
	Alternatively, the system should support integration with Active			
	Directory authentication.			
	Timeout years often a new defined namiad of inactivity and terminate any			
1.9.2	Timeout users after a pre-defined period of inactivity and terminate any			
1.9.2	active processes that are associated with a user once terminated, logged			

1.9.3       Allow access to duly authorized users, both at application and DB level.         Access to the system will be limited to users with defined user ids and passwords         1.9.4       The ability for system administrator to log out users when necessary to perform maintenance or other activities that require users to leave the system. Such log-outs should provide for an orderly shutdown of the client workstation.         1.9.5       Limit access to create and amend user profiles to authorized IT Administrators         1.9.6       Maintain an audit trail of all changes to the security management settings         1.9.7       Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.         1.9.8       Ability to restrict user access to specific data items to Read only or Read and write         1.9.9       Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates         1.9.10       Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.         1.9.11       Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group users into data capture, supervisors, administrators). No user should
passwords1.9.4The ability for system administrator to log out users when necessary to perform maintenance or other activities that require users to leave the system. Such log-outs should provide for an orderly shutdown of the client workstation.1.9.5Limit access to create and amend user profiles to authorized IT Administrators1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
<ul> <li>1.9.4 The ability for system administrator to log out users when necessary to perform maintenance or other activities that require users to leave the system. Such log-outs should provide for an orderly shutdown of the client workstation.</li> <li>1.9.5 Limit access to create and amend user profiles to authorized IT Administrators</li> <li>1.9.6 Maintain an audit trail of all changes to the security management settings</li> <li>1.9.7 Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.</li> <li>1.9.8 Ability to restrict user access to specific data items to Read only or Read and write</li> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
perform maintenance or other activities that require users to leave the system. Such log-outs should provide for an orderly shutdown of the client workstation.1.9.5Limit access to create and amend user profiles to authorized IT Administrators1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
<ul> <li>system. Such log-outs should provide for an orderly shutdown of the client workstation.</li> <li>1.9.5 Limit access to create and amend user profiles to authorized IT Administrators</li> <li>1.9.6 Maintain an audit trail of all changes to the security management settings</li> <li>1.9.7 Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.</li> <li>1.9.8 Ability to restrict user access to specific data items to Read only or Read and write</li> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
client workstation.1.9.5Limit access to create and amend user profiles to authorized IT Administrators1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
1.9.5Limit access to create and amend user profiles to authorized IT Administrators1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
Administrators1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
1.9.6Maintain an audit trail of all changes to the security management settings1.9.7Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
<ul> <li>1.9.7 Ability to define role-based user access based on a User Access Matrix to be determined by the Ministry.</li> <li>1.9.8 Ability to restrict user access to specific data items to Read only or Read and write</li> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
to be determined by the Ministry.1.9.8Ability to restrict user access to specific data items to Read only or Read and write1.9.9Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates1.9.10Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.1.9.11Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
<ul> <li>1.9.8 Ability to restrict user access to specific data items to Read only or Read and write</li> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>and write</li> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>1.9.9 Ability to implement and enforce maker checker controls on sensitive transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>transaction/data changes such as changes to rates</li> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>1.9.10 Multi-level security controls to prevent unauthorized use of system and corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>corruption of data, restrict access to the database, maintain database process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>process controls, and log all database transactions. The System must support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>support access restriction capability to certain modules, data tables, screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
<ul> <li>screens, fields and reports.</li> <li>1.9.11 Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group</li> </ul>
1.9.11       Ability to group users into different user groups for ease of security administration and reporting (for example, it should be possible to group
administration and reporting (for example, it should be possible to group
users into data capture, supervisors, administrators,). No user should
exist without belonging to a group.
1.9.12 The system should be menu driven such that all functions within the
application are executed by use of menu options
1.9.13 The system should have hierarchical menu options that can be easily
changed by authorized users.

REF	REQUIREMENT			
1.9.14	Ability of the system to refer transactions automatically to authorized			
	approvers and be able to re-route transactions when the transaction is not			
	authorized after a pre-defined interval			
1.9.15	Ability of the system to automatically alert the initiator of the process on			
	approval/rejection/status of the process in all processes and escalate			
	further if no action is taken.			
1.9.16	The system should have multi-windowing capability			
1.9.17	The system should have consistent screen layouts, messages, keystroke			
	handling and other elements of the user interface throughout the system			
1.9.18	Ability of the system to prompt for different levels of authorization on			
	change of any system parameter			
1.10	Audit Requirements			
1.10.1	Ability to provide tools for monitoring the security environment and			
	security events. For example, ability to obtain reports on expired			
	passwords, successful and failed access attempts, suspicious activity,			
	etc.			
1.10.2	Ability to record the User ID, date and time that a data record was last			
	changed.			
1.10.3	Ability to define what changes to what data items should be logged			
1.10.4	Ability of the system to have enhanced password management structure			
	and authentication e.g. password ageing and expiry, two factor			
	authentications, biometrics.			
1.10.5	Ability to maintain flexible activity tracking and reporting that allows			
	logs to be maintained per group of users and specified high risk			
	activities.			
1.10.6	Ability to customize audit trail reports (i.e., run query for specific field			
	changes made on specific dates)			
1.10.7	The system administrator should be able to define the time and days			
	when the system is available to the user.			

REF	REQUIREMENT	
1.10.8	Ability of the system to provide a complete online audit process that	
	includes audit planning, audit questionnaire, engagement letter,	
	engagement meeting minutes, audit checklist, audit reports and matrix,	
	Follow-up report matrix	
1.10.9	Ability of the system to flag noncompliance and violations to set	
	thresholds, risk tolerance and limits	
1.10.10	Ability of the system to implement and track (escalate) predefined	
	approval SLAs.	

### 4.1.2 Data capture/fields requirements

The new system is required to support a rich data capture feature to support reporting and analytical functionalities. The system should automatically enforce data consistency checks to promote high standards of data integrity.

In this section we have provided detailed information on the minimum data capture requirements:

Data item	Data Capture Requirements	<b>Bidder's Response</b>
Licensee Details (this data will come from the cadastre system)	<ul> <li>Name of the Licensee</li> <li>Licensee Distinction Between Corporate and Individual</li> <li>Address of the licensee and all other personal information including but not limited to: <ul> <li>ID/Certificate of Incorporation</li> <li>PIN</li> <li>DOB/Date of Registration</li> <li>Gender</li> <li>Email Address</li> <li>Mobile Number(s)</li> </ul> </li> <li>Area of Mining <ul> <li>County Level – If the mining area extends over more than one (1) county then there should be a data capture of each county and the percent (%) area of the county</li> </ul> </li> </ul>	

Receipt number	
• Details of the payer	
Method of payment	
• Tagging of the payment to a specific or multiple	
sale	
Waiver/Suspended Royalty:	
Miner/dealer allocated the waiver/suspension	
Period of waiver/suspension	
• Mineral for which waiver/suspension has been	
granted	
• Selection of type of benefit: waiver or	
suspension	
<ul> <li>late payment of royalty</li> </ul>	
• amount unpaid at expiry of due date	
• cumulative unpaid royalty and accruing interest	
date of issuance of notice of Default in payment	

# 5. Evaluation Criteria

S/No.	Competence	Criterion	Key Aspects of the Criterion	Points
1.	Qualifications of Key personnel	Lead Consultant	At least a bachelor degree in ICT or related field with at least 7 years' experience in implementing similar or related system development. Provide evidence of recent relevant projects delivered.	5
		Supporting Consultants (3No.)	The experts should demonstrate experience in System design/Software Development. Database, system integration and administration. Minimum of a degree in ICT or related field and at least 5 years' experience in similar assignments.	3
2.	Specific experience	The bidder should possess	More than 10 years working experience	40
		demonstrable experience in system development of	<ul><li>5-9 years working experience</li><li>3-4 years working experience</li></ul>	30 20

Total	l			100
		Audited Accounts	One Year	4
	Accounts	copies of Firms	Two Years	9
5.	Audited	Provide certified	Three or more years	14
			Valid Tax Compliance Certificate	2
			A copy of KRA PIN	2
			one year or equivalent	
	1		A copy of CR 12 not older than	2
	requirements	1	Registration	
	mandatory	requirements	Incorporation/Business	-
4.	Provide	Statutory	A copy of Certificate of	2
		of undertaking the assignment		
		including timelines,	Methodology not clear	0
		methodology,	assignment	
		provide clear	timelines, of undertaking the	
3.	Methodology	The bidder should	Clear methodology, including	30
		Public Sector.		
		preferably within the		
		assignment		
		Offer, Copies of Contract for similar		
		LPO's, Letters of	No experience	0
		and nature – Provide	experience	
		similar magnitude	Less than 3 years working	10