TERMS OF REFERENCE FOR SYSTEM ANALYST

Contract	
Project	Phase I - INTEGRATED SOCIAL REGISTRY SYSTEM FOR NEPAL
Expertise/Position	SYSTEM ANALYST
Source	National	**Category**	Individual

1. Background:

Social protection plays a significant constitutional and political role in defining the social contract between the state and its citizen in Nepal. The right to social security has been enshrined in the Constitution of Nepal, in line with the concept of a socialism-oriented welfare state, as a fundamental right of the economically deprived, incapacitated and helpless, single women, the disabled, children, those unable to take care of themselves and endangered ethnicities. The Fifteenth Periodic Plan of the government also aims to "make social security and protection sustainable, universal and accessible, for the implementation of civil rights and strengthen the trust of citizens towards the state."

The Government of Nepal spends about 3.9 percent of GDP on social protection and implements a large number of social protection programs through various government agencies in health, education, employment, food and nutrition, agriculture and other sectors. The largest social protection program in the country, the Social Security Allowances (SSA), has an annual budget of more than NPR 93 billion for the FY21/22 and reaches around 3.5 million beneficiaries across the country. The lack of an integrated framework for social security and protection programs has led to fragmentation and duplication of resources and the lack of coordination between these various programs. Weak delivery systems, lack of integration between information systems, and low coverage of the population further add to the challenges of delivering and monitoring social protection programs in federal context.

The 15th Periodic Plan of the government has identified the development of an integrated social protection information system as a strategic sectoral priority to improve intergovernmental coordination and collaboration and to address the problems of lack of data, and fragmentation and inefficiency in social security delivery system. To implement the strategic vision in the Plan, the Government of Nepal has expressed commitment to establish an integrated social registry as an essential element of building such integrated information system. The Department of National ID and Civil Registration (DONIDCR) under the Ministry of Home Affairs (MOHA) has taken the lead in conducting multi-stakeholder policy and technical dialogue on building shared understanding and coordination needed to develop the technical foundations and long-term policy vision to establish an integrated social registry in the country. The Ministry of Home Affairs has also adopted a "Nepal Integrated Social Registry Framework" after consultations with multiple federal level stakeholders. Based on the framework, the department plans to develop the basic foundations for social registry through the World Bank financed "Strengthening Systems for Social Protection and Civil Registration" (SSSPCR) project that it is implementing nationally.

The SSSPCR project supports the Department's Civil Registration (CR) and the Social Security Allowance (SSA) program and aims to improve the coverage of SSA and CR, and the delivery of SSA. Over the project period, the project is expected to support: (a) expanded coverage of CR and SSA; and, (b) improved delivery of SSA via transition to e-payments in selected Local Levels and improved overall business process for SSA service delivery, and (c) strengthened institutional capacity at federal and local level to transition to fully digitized SSA and CR processes.

The social registry sub-component of the project aims to design and develop the foundations of an integrated social registry in Nepal, to improve the SSA intake, registration and enrolment processes, and improve interoperability with NID and CR systems as first phase of NISR design and development. In particular, the social registry sub-component in the project includes the following activities:

Preparation of system design documents based on input from the Department.
- Development of foundational system and basic API for Nepal Integrated Social Registry (NISR).

- Testing, deployment, and training of the system.
- Testing of multiple modalities of populating the NISR.
- Provide input to Phase 2 design and implementation documentation.

2. Objective/Purpose of the Assignment:

S/he will be responsible for Phase-1 ISR analysis and design: including analyzing the existing system and new requirements, design and development of ISR system, database structure and other technical activities as per required by DoNIDCR.

3. Scope of Work:

The System Analyst will work closely with Project Management Unit (PMU) under the supervision and direction of the IT Director and team leader of SSSPCR for the attainment of project's goal. The System Analyst's main responsibility is to assist team leader (and through her/him also the PD and PM) on the following:

4. Duties and Responsibilities of Consultant:

- Conduct system requirement study/gap analysis, developing data/process flow diagrams to effectively map the business requirements into MIS.
- Analysis of business strategy, study of existing system and construct logical, physical design and specifications for the development of ISR. Develop, write, and communicate systems design, functional system specifications and functional architecture analysis.
- Design system architecture, preparation of ISR System Data Dictionary and data flow matrix of the each of the systems and /or sub-system including their representation and storage.
- Analyzing the existing system like Social Security Allowance, National ID, CR and other Social Security related systems and new requirements, design and development of ISR system, database structure and other technical activities as per required by DoNIDCR.
- Transform and/or map the integrated social security business processes and use cases into the business process diagrams and workflows including business process rules and special cases covering the registration/intake, eligibility testing and verification processes etc.
- Preparation of System Requirement Specification Document of the system.
- Analyze, design integration mechanism for SP data sharing and verification mechanism like Web API, Web services.
- Regularly deal with comments and feedbacks about the system operation from end user, related stakeholders and analyze their viability to integrate them into the systems as required.
- Prepare Work Flow of the activity done and provide detail report to Team Leader and DoNIDCR's computer engineer monthly.

5. Deliverables

The consultant should prepare and provide proper document included but not limited to the following:
- Study report of existing systems and prepare analysis and design document for ISR system requirements.
- System Requirement Study/Gap Analysis: An assessment of system needs and current shortcomings.
- Business Process Diagrams and Workflows: Visual mappings of integrated social security business processes and special cases.
- ISR System Data Dictionary and Data Flow Matrix: Comprehensive details on system/sub-system data handling and representation.
- System Requirement Specification Document: A formal document outlining the system's required functionalities.

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6. Required Qualifications

A. Academic qualifications and training

- At least master's degree in IT/ Computer Science or equivalent.

B. Experience

- 10 years of experience in system analysis and design; international experience will be an advantage.
- At least 2 project experiences as system analyst in development of information systems for Government of Nepal.
- Knowledge and experience of Social Protection will be an advantage.

C. Skills

Core Skills:

- Knowledge of system analysis techniques, such as UML (Unified Modeling Language), to effectively analyze and document system requirements, use cases, and workflows.
- Knowledge of database and SQL to work with structured data and should have a sound understanding of relational databases like Microsoft SQL Server, MySQL database, Oracle DB.
- WCF, SOA, Restful web service for developing service layer.
- Strong inter-personal and communication skills.
- Experience in working with team and team building spirit.

Preferred Skills:

- Proficiency in data analysis tools and techniques, such as SQL (Structured Query Language), Excel, data visualization tools (e.g., Tableau, Power BI), and statistical analysis software (e.g., R, Python).
- Familiarity with BI tools like SAP BusinessObjects, IBM Cognos, or Microsoft Power BI to create reports, dashboards, and interactive visualizations to provide valuable insights to stakeholders
- Knowledge of process modeling techniques, such as BPMN (Business Process Model and Notation), and process analysis tools like ARIS or Visio.
- Proficiency in requirements management tools like JIRA, Confluence, or IBM Rational DOORS to capture, document, track, and manage requirements throughout the project lifecycle.
- Understanding of Agile methodologies like Scrum or Kanban, and familiarity with Agile project management tools like JIRA or Trello.
- Knowledge of system analysis techniques, such as UML (Unified Modeling Language), to effectively analyze and document system requirements, use cases, and workflows.
- Familiarity with the various phases of the SDLC to work effectively with development teams and ensure smooth project execution.
- Business analysts should have hands-on programming knowledge in order to perform quicker and better data analysis.
- Knowledge of database and SQL to work with structured data and should have a sound understanding of relational databases like Microsoft SQL Server, MySQL database, Oracle DB.
- Ability to analyze business processes quickly and provides technical solutions.
- Strong problem solving and analytical skills.
- Strong trouble shooting skills and Enjoy challenges.
- Participate in project discussion/analysis.
- Learning and using new technologies Research & Development.
- Certification in related field will be an advantage.

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7. **Duration of Service:**

The consultant will be assigned on an intermittent basis for 6 months.

8. **Selection Criteria:**

A Software Developer will be selected in accordance with the procedures set out in the World Bank's 'Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers', published by the World Bank in January 2011, revised July 2014."

9. **Duty Station:** Kathmandu (DoNIDCR), Nepal with field visit as per requirement.

10. **Financial Conditions:**

   a) The consultant salary is negotiable but will not be more than the estimated value per month. A monthly lump sum amount of remuneration per month will include all his overheads, social charges and other associated costs including local transportation within Kathmandu valley and insurance premium costs.
   b) The consultant shall be responsible for all taxes and duties including income tax applicable as per Government of Nepal rules and regulations.
   c) In case of travel requirement outside Kathmandu valley and within Nepal for project related assignments, consultant shall be paid travel expenses as per actual and DSA will be paid equal to section officer, Government of Nepal.

11. **Reporting Requirements:**

The consultant should work along with Team Leader and will report the IT Director.

12. **Facilities to be provided by ISR-PMU/DoNIDCR:**

DoNIDCR shall provide following facilities to consultant during his tenure of service:

   a) Office space with computer and furniture
   b) Email and internet access
   c) Required office stationery

Director General

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