Government's Office
National Committee for
Rural Development and Poverty Eradication (NCRDPE)
Poverty Reduction Fund (PRF)
Monitoring and Evaluation (M&E) Division

Management Information System (MIS)
New Database Design and Creation for PRF Phase III

I. Background of PRF
The Poverty Reduction Fund Project was legally established by a Decree of the Prime Minister of the Lao PDR (No. 073/PM), dated 31 May 2002 and amended in September 2006 (222/PM) and in January 2012 (10/PM) as an autonomous organization, overseen by an Administrative Board comprised of Government and provincial representatives. It is chaired by the Deputy Prime Minister, Standing Member of the Government, and Chair of the National Committee for Rural Development and Poverty Eradication.

Preparing for its 3rd phase to commence in January 2017, PRF III maintains the key objective of PRF II: to improve access to and utilization of basic infrastructure and services for the targeted poor communities in a sustainable manner through inclusive community and local development processes. PRF I, II and III aim to fill a critical gap by financing investments in small-scale rural infrastructure that facilitates poor villagers' access to basic services and markets in relatively remote and inaccessible areas.

To effectively manage project implementation and to assess the outcomes and impacts of the project, PRF needs to develop a strong Management Information System (MIS) which contains data on project performance and resources including financial, management and technical information. Data must then be presented in a user-friendly and timely manner so that mid and upper-level managers can use it to take the right actions.

PRF II (2012-2016) developed a MIS system that the project used for performance assessment and monitoring during that period. However PRF has evolved since the development of this early MIS. The PRF III results framework requires some new indicators, and M&E responsibilities have spread more widely among PRF staff. For these reasons, PRF needs to revise its MIS system, building on the earlier system but ensuring it captures all required indicators, is available to broader number of users, and easy to use both for data entry and analysis.

II. Proposal summary
This proposal aims is for the development, testing and implementation of a new PRF MIS database design for PRF Phase III. This work will require a team comprised of a Team Leader/MIS specialist and database program developer to work with the PRF M&E division. The contract will be in two stages. The initial stage will be to develop the draft database

conceptual design which will be presented to the PMT and donors for their review. If approved, the second and final stage will involve the development and testing of the database, the migration of information from the earlier MIS into the new system, and the training of users (data entry and analytical users) in the new system. It is estimated that the first stage will require 45 days for each team member and the second stage 45 days for each member.

III. Background of PRF MIS

In late 2012, PRF contracted the development of a management information system (MIS) using SQL Server to hold the key management and M&E data collected in forms at the village and kumban level by PRF officers and local facilitators. This information is used to manage the planning, design, procurement, implementation, monitoring and evaluation of the many PRF sub-projects across the 10 provinces in which PRF works. This data is also essential for reporting to Government and donors.

However, in early 2014, it was found that the initial design of the MIS for PRF II did not cover all the information needed to report against the indicators in the Results Framework because some new indicators had become necessary after the system had been set designed. Thus, in March 2015, an IT consultant was engaged to make minor modifications to the MIS to capture information on the newly developed forms and highlight those fields to the MIS data entry forms that were for key MIS data to ensure that these fields were always fully and accurately completed. As of November 2015, the modification was completed and the revised system has been used since then. More than 1500 sub-projects were supported during PRF II and all necessary data were entered into the MIS system.

IV.   Justifications for the proposed new system

One of the major issues facing PRF M&E in the past has been that many of the divisions within the PRF have not fully embraced the collection, analysis and use of performance information. While all divisions have responsibilities for completing data recording forms used in the PRF MIS and essential for performance reporting to GoL and donors, divisions have not generally taken responsibility for checking data quality and completeness and entering the information in the MIS. Similarly, other than M&E, no other division has online access to the MIS in order to use the information for management and resource allocation decisions, improving efficiency and effectiveness of implementation, or for summarizing progress for routine progress reporting.

Restructuring the MIS and improving access to the MIS for other divisions as well as for provinces (and ultimately districts) will address some of the above shortcomings and promote ownership of MIS/M&E information throughout PRF.

Key prior steps towards the restructuring the MIS are envisaged as follows:

- Revising forms to meet both M&E and other divisions' management and reporting needs (including refinement to the indicators in the revised results framework for Phase III)

- Dividing the forms into clear sections such that each division is clearly responsible for the completion of whole sections (rather than mixed responsibilities for completion of questions/sections within any one form)

Once these steps are completed, work on revising the MIS can commence:

- Clearly reflecting the above restructured forms within a restructured MIS so that data entry forms exactly mirror the field data forms for ease of data entry and monitoring of information completion and accuracy by the division responsible.
- Adding new sections to the MIS to reflect the priority information needs of recent pilot activities (deepened CDD and LN)

The recently improved database system that is currently in used is already effective in providing necessary data required to report against PRF Result Frameworks Indicators for PRF II. However, in increasing efficiency and effectiveness of PRF III implementation, it requires a newly developed system which will allow M&E information be used more widely and in new and innovative ways .

The proposed newly developed system will employ a web-based design instead of the current PC desktop application. A web-based system will provide a number of important advantages:

- Currently, the database system is only accessible via personal computers that are installed with the database software. This limits user access to the system. With the proposed web-based system, the MIS will be accessible from a variety of devices such as personal computers, hand-held tablets and mobile phones without having to pre-install the database software. This is expected to bring a significantly greater degree of convenience for data entry, validation, analysis and reporting.
- Because the proposed system is accessible from handheld tablets or phones, faster data collection and entry will be made possible because data collectors will be able to use their tablets or phone to collect and enter data straight from the field. This will contribute to greater efficiency in providing up-to-date data to the system for reporting.
- The proposed web-based system will also considerably more convenient in terms of maintenance. Currently, for every modification (minor or major) made to the system, such change has to be manually made to the installed application on each individual computer. In contrast, with a web-based system, any modification (minor or major) can be centrally made to only the server. This greatly facilitates regular maintenance and management.

In addition to employing a web-based system, the proposed new MIS will also incorporate information for broader PRF management and planning purposes thereby extending the use of the MIS beyond simply M&E and project reporting:

- Addition of data on Geographic Information System (GIS) to enable more effective infrastructure planning and mapping,
- Human Resource (HR) information for staff management purposes,
- Livelihood and nutrition data related to the new activities supporting village livelihoods and nutrition to ensure outputs and outcomes are able to be fully assessed,
- Budget and expenditure information not only related to each sub-project but also for improved planning and management of training activities, for assessing the unit costs of sub-projects and materials in each region, to monitor the community contributions for each sub-project etc.[1]
- Monitoring and managing PRF's social and environmental safeguards procedures and obligations
- Summary descriptions for each activity which outline implementation status and progress with regular updates once any new data are entered into the system. These summary descriptions may be presented in simple forms (tables, figures or annotations to maps). This section will be available for public access and will be a great tool for promoting PRF achievements.

V.   Scope of work and schedule

In order to ensure seamless transition to PRF III, the development of the new database system should commence in June 2016 and be completed prior to implementation of PRF III (ideally by the end November 2016).

Generally, the scope of work will include the following activities:

- Initial discussion with MIS specialist and donors for new database design
- Review of revised forms, data requirements and formats, existing MIS structure and content
- Development of the draft conceptual design of the new MIS for presentation before programming commences
- Database program development and testing (structure of database developed initially then incremental development and testing of modules related to specific data forms and divisional responsibilities)
- Piloting and debugging the completed system
- Migrating essential information from existing MIS
- Training users at all levels (district, provincial and central) on how to operate and maintain the system and use the information contained within

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[1] The MIS should clearly indicate estimated costs based on the design and bill of quantities as a separate value from the final actual cost of each completed sub-project.

- Finalization of standard reports for use by each division and for routine PRF reporting.
- Tentative schedule

Steps	Aug		Sept		Oct 2016		August 2017
MIS design and programming 6 weeks	███						
MIS installation, testing and training 3 weeks			██				
Reporting writing 3 weeks					███		
Back stopping 12 months							████

Completion of stages one and two of the contract there may be a need for periodic support to address any emerging database issues and new requirements. Ongoing system maintenance is not included in this contract.

VI.   Expected Outputs

Stage One:
- MIS conceptual design document (due August 2016)
- Workplan and schedule for Stage Two (due August 2016)
- The conceptual design, workplan and schedule will be presented at a workshop (due Agust 2016) and will be revised based on feedback

Stage Two:
- Monthly presentations on progress towards MIS development (September, and October 2016)
- Prototype MIS with example data to demonstrate its operation and performance (November 2016)
- Presentation/demonstration of prototype MIS (November 2016)
- Following feedback from demonstration and associated modification the working MIS will be installed on the server and data migrated from the earlier MIS as required (December 2016)
- Training courses for different levels of users will be provided including for M&E Division database and GIS officers (December 2016)
- Final report describing the MIS system, structure and operation, including training materials used for the various training courses (end December 2016)

VII. Contract Term

The consultant team is expected to start the assignment before then end of June, 2016 and complete the deliverables by 31st December 2016. Subject to favorable performance, one of more

of the team may be hired for downstream work to further develop and/or maintain the MIS after installation.

VIII. Reporting and Work Arrangement

The consultant team will report to the PRF Management Team. The consultant will closely work with Head of M&E and his staff members responsible for the MIS. The World Bank Group's extended team supporting PRF will also provide guidance to this work.

IX. Contractor experience and qualifications

- Database Program Developer: appropriate tertiary qualifications and at least three years' experience in database programming and design,
- Team Leader/MIS Specialist: appropriate tertiary qualifications, a sound understanding of project M&E, and at least three years' experience in MIS system development related to development projects,
- Database Program Developer must be competent in SQL Server and web-based applications,
- Both consultants should be familiar with the constraints faced by online databases used in areas with unreliable and slow internet services
- Both consultants should be experienced in the design and operation of web-based information systems,
- This experience should be clearly evidenced in the specialists' CVs showing similar consultancies completed in the past.
- PRF will contact the referees provided by each consultant
- Excellent knowledge in Lao and English language

X. APPLICATIONS

Prior to the commencement if the work, a proposal including the total consultancy costs and proposed schedule will be presented to PRF for further discussion and negotiation. The proposal should include:

- Proposed budget
- Schedule of working
- Agenda MIS installation, testing and training (national and province)
- Technical specification of the databases, and
- References including experience with large international organization (if available)

Prepared and proposed by:

PRF M&E Division