United Nations Children's Fund

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS

National Consultancy: IT Specialist to NSAF specialising in Mobile Applications Development for Social Assistance programs including modifications and additional functions for the Family Package, TVET, Monitoring, Risk and Vulnerability Assessment, Feedback, and Interoperability of Data Systems.	Funding Code N/A	Type of engagement National Consultant	Duty Station Phnom Penh, Cambodia

Purpose of Activity/Assignment:

In December 2023, the Royal Government of Cambodia officially launched the Guideline on the Implementation of the Family Package of Social Assistance. This integrated approach towards social assistance has been designed to offer comprehensive support to vulnerable families and individuals by streamlining administrative procedures and expanding eligibility. It encapsulates key elements such as the cash transfers to reduce poverty and vulnerabilities and enhancing human capital in the Cambodian population. Key programmes include the Cash Transfer Programme for Pregnant Women and Children under 2 years (CT-PWC), Scholarship Programme for Primary and Secondary School Students, Cash Transfer for Persons with Disabilities (CT-PWD), and the Cash Transfer for the Elderly aged 60 and above. The foundational principle of these programmes is non-discrimination with the intention of reducing HIV-risk through all-encompassing support to underprivileged individuals, regardless of their gender, ethnicity, or HIV status, thereby addressing issues associated with low income, limited education, and health-seeking behaviour.

The National Social Assistance Fund (NSAF) has implemented several digitized Information Management Systems to expand and improve services. These systems manage various national cash transfer programmes, such as the Cash Transfer for Pregnant Women and Children under two, the Cash Transfer for IDpoor households and vulnerable during COVID-19, cash transfer for At-risk households affected by floods and global inflation, and the TVET Cash Transfer programmes. These digital systems aim to establish a standardized approach for using mobile applications and web-based cash transfer delivery systems. Building on the experiences and lessons learned from these digital systems, the integrated Mobile Application and MIS for the implementation of the integrated cash transfer programme, "the Family Package", has been fully developed, tested, and has operationalized the implementation of the Family Package, scheduled to roll out in April 2024.

In order to expedite the successful execution and potential enhancements of these programmes, as well as to ensure the interoperability of data systems with other social protection programmes, monitoring and evaluation systems, TVET, disability management information systems (DMIS), and other related platforms, a National IT Specialist is required. This IT specialist will assist the National Social Assistance Fund (NSAF) with the development and modification of mobile applications for Social Assistance. These apps include the Family Package and TVET applications, modules for monitoring, risk and vulnerability assessment, and feedback mechanism, with a primary focus on interoperability of data systems among platforms.

Scope of Work:

The consultancy assignment involves many duties associated with the development of crucial digital mobile application components. These tasks are crucial for operationalization and strengthen the development, maintenance, and skill enhancement of the NSAF IT team:

Key assignments of the consultancy include:
- Review, troubleshoot, document, and assist with solutions for any issues related to the operations of the Family Package mobile app functions, including but not limited to preregistration, registration, enrollment, conditions, complaints, and payments.
- Make guided modifications of the Family Package mobile application
- Update documentation: Flutter builds how-to, Flutter debugging, including detailed deep technical documentation detailing including but not limited to API endpoint name, method, variable name, field Name, validation, table name.

- Updated sequence diagrams, and flows charts to be stored in Confluence along with source files and code.
- Update Git repositories with concise commit messages, and ensure consistent code
- Optimize app performance. Use tools like the Flutter Performance Overlay, Dart Dev Tools, and Android Profiler or Xcode Instruments to monitor and analyze app performance. Techniques like lazy loading, image caching, and minimizing unnecessary rebuilds can help improve performance.
- Write clear, readable, and well-documented code that follows the Dart style guide and best practices.
- Regularly test your app for functionality and compatibility across different devices, OS versions, and screen sizes. Write unit tests, integration tests, and widget tests using the Flutter testing framework. Use breakpoints, print statements, and tools like Flutter's Dev tools to debug issues effectively.
- Implement security measures to protect user data and app integrity. Use secure HTTPS connections, store sensitive data securely, and follow best practices for authentication and authorization.
- Provide daily updates to JIRA tasks with concise explanations, testing regimes, time to resolve, time to complete.
- Change Family Package mobile app to provide further enhancements to deliver integrated social assistance to beneficiaries as part of the Family Package Platform.
- Operate, and maintain the TVET Programme development and live systems,
- Ensure continued interoperability of Family Package and TVET systems integrate with remote government databases including but not limited to the Ministry of Planning IDPoor, MoVLT remote API systems, etc.
- Develop and update new flow charts for integrated monitoring systems, complaint mechanisms, help-desk feedback systems.
- Develop a mobile application using Figma, Flowcharts, Sequence Diagrams, and other build tools for the integrated monitoring system, complaint mechanisms, Helpdesk feedback system and develop the associated user-friendly manual to be hosted on Confluence, and PDF formats
- Design and develop a system for the Shock Responsive components as part of the Family Package Platform, including a Risk and Vulnerability assessment component
- Provide ToT training manual on the Family Package Mobile application to national and provincial trainers to further train relevant officials in the communes/sangkats and school stakeholders (integrated scholarship CTP programme).
- Document key issues of the existing operating systems and log all in a detailed and concise manner on JIRA. Provide standard troubleshooting form for the IT help-desk team to complete in the mid-term.
- Provide training to the IT team on mobile applications, its compilation, functional operations, management and maintenance. Identify technical skills within the team and assign specific roles and responsibilities to each IT staff member.
- Prepare comprehensive guidelines for management and maintenance and handover note to NSAF IT team.
- Liaise regularly with TL providing clear and concise updates about project management, tasks, issues, and other program related matters.

Child Safeguarding

Is this project/assignment considered as "Elevated Risk Role" from a child safeguarding perspective?

☐ YES   ☒ NO   If YES, check all that apply:

Direct contact role   ☐ YES   ☒ NO

If yes, please indicate the number of hours/months of direct interpersonal contact with children, or work in their immediately physical proximity, with limited supervision by a more senior member of personnel:

Child data role   ☐ YES   ☒ NO

If yes, please indicate the number of hours/months of manipulating or transmitting personal-identifiable information of children (name, national ID, location data, photos):

More information is available in the Child Safeguarding SharePoint and Child Safeguarding FAQs and Updates

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Budget Year	Requesting Section/Issuing Office:	Reasons why consultancy cannot be done by staff:
2024	Policy and Public Finance for Children	N/A

Consultant sourcing: ☒ National ☐ International

Competitive Selection: ☒ Advertisement ☐ Rosters

Single Source Selection: ☐ (Emergency - Director's approval)

Request for:
New Individual Contract

Supervisor: Keo Sovannary	Start Date: 1 June 2024	End Date: 31 May 2025

Work Assignments Overview	Deliverables/Outputs	Delivery deadline	Estimated Budget
Workplan 1: ▪ Review, troubleshoot, document, and assist with solutions for any issues related to the operations of the Family Package mobile app functions, including but not limited to preregistration, registration, enrollment, conditions, complaints etc. ▪ Modifications and additional functions for the Family Package, TVET, Monitoring, Risk and Vulnerability Assessment, Feedback, and Interoperability of Data Systems. ▪ Update documentation: Flutter builds how-to, Flutter debugging, including detailed deep technical documentation detailing including but not limited to API endpoint name, method, variable name, field Name, validation, table name. ▪ Develop and update new flow charts for integrated monitoring systems, complaint mechanisms, help-desk feedback systems. ▪ Operate, and maintain the TVET Programme development and live systems, ▪ Develop a work plan for the consultancy.	**Deliverable 1:** ▪ Consultancy Work-plan Report ▪ Report on Family Package Mobile App: Issues, Troubleshooting and Recommendations for App Modifications all to be updated and rectified on JIRA. Corresponding power-point of document highlighting key results or issues. ▪ Complete and concise documentation, flow charts, sequence diagrams, and manuals on Confluence ▪ Detailed deep technical documentation. ▪ Provide daily updates to JIRA tasks with concise explanations, testing regimes, time to resolve, time to complete. ▪ Progress report on project management, tasks, issue, and other related IT systems to Team leader	64 days, August 2024	25%
Workplan 2: ▪ Develop and update new flow charts for integrated monitoring systems, complaint mechanisms, help-desk feedback systems.	**Deliverable 2:** ▪ Report on the development and Live Production Mobile App for integrated monitoring and Help-desk feedback system	60 days, Nov 2024	24%

Work Assignments Overview	Deliverables/Outputs	Delivery deadline	Estimated Budget
▪ Update documentation: Flutter builds how-to, Flutter debugging, including detailed deep technical documentation detailing including but not limited to API endpoint name, method, variable name, field Name, validation, table name. ▪ Develop a mobile application using Figma, Flowcharts, Sequence Diagrams, and other build tools for the integrated monitoring system, complaint mechanisms, Helpdesk feedback system and develop the associated user-friendly manual to be hosted on Confluence, and PDF formats ▪ Design and develop a system for the Shock Responsive components as part of the Family Package Platform, including a Risk and Vulnerability assessment component ▪ Travel to provinces for conducting API Testing with commune/sangkat focal points for 7 days including travel days.	▪ Report on User-friendly Mobile/App instruction manuals with updated screenshots. ▪ Detailed deep technical documentation to be updated regularly on Confluence. ▪ Daily updates to JIRA tasks with concise explanations, testing regimes, time to resolve, time to complete. ▪ Report on draft workflow for Shock-Responsive Family Package ▪ Progress report on project management, tasks, issue, and other related IT system to Team leader		
Workplan 3: ▪ Provide ToT training manual on the Family Package Mobile application to national and provincial trainers to further train relevant officials in the communes/sangkats and school stakeholders (integrated scholarship CTP programme). ▪ Document key issues of the various systems and log all in a detailed and concise manner on JIRA. Provide standard troubleshooting form for the IT helpdesk team to assist them to organize and handle operational issues (e.g a ticketing system) ▪ Travel to provinces for conducting API training to NSAF Branch focal points for 7 days including travel days.	**Deliverable 3:** ▪ Report on the developing training manuals on Confluence and word and PDF formats with corresponding version numbers. ▪ Report on the result of tReraining Report on the Family Package - Focused on the Scholarship CTP Program. ▪ Analysis Report on the Efficacy and Monitoring of the Helpdesk System, including Detailed Architecture Design Information. ▪ Progress report on project management, tasks, issue, and other related IT system to Team leader.	64 days, Feb 2025	25%
Workplan 4: ▪ Provide training to the IT team on mobile applications, its compilation, functional operations, management and maintenance. Identify technical skills	**Deliverable 4:** ▪ All final technical documents of the mobile apps, including Figma designs, sequence diagrams,	63 days, May 2025	26%

Work Assignments Overview	Deliverables/Outputs	Delivery deadline	Estimated Budget
within the team and assign specific roles and responsibilities to each IT staff member. ▪ Prepare comprehensive guidelines for management and maintenance and handover note to NSAF IT team.	flowcharts, deep technical documentation. ▪ Guidelines for management and maintenance of the system ▪ Training and hand over report ▪ Progress report on project management, tasks, issues, and other related IT system to Team Leader.		
Total		251 days	100%

Minimum Qualifications required:	Knowledge/Expertise/Skills required:
☒ Bachelors ☐ Masters ☐ PhD ☐ Other ▪ A Bachelor's degree or equivalent in computer science, software engineering, or a related field ▪ Minimum 2 years of experience in software development, Mobile/App development, or related fields is required.	▪ Solid Experience building Progressive Web Applications, Native Android applications in JAVA, ▪ Native IOS applications in SWIFT ▪ Advanced Java and Swift coding, debugging, and compilation experience. ▪ Knowledge of using the Flutter framework ▪ Experience with programming in Objective-C ▪ NET coding experience is a plus. ▪ Proven experience interfacing securely with core banking systems ▪ Expert level coding utilizing PHP, the Laravel Framework (or other PHP framework) ▪ Complex database structures ▪ Ability to write unit tests, perform other code tests, and UI and UX testing. ▪ Proficiency in designing and implementing secure systems that utilize a multitude of real-time transactions

Evaluation Criteria (This will be used for the Selection Report (for clarification see Guidance)

A) Technical Evaluation (100 points). Weighted score is 70%.
   ▪ Relevant educational background (20 points)
   ▪ Relevant skill and experience (50 points)
   ▪ Experience with cloud systems architecture, data security, database cluster design, developer operations, system automation (30 points)

B) Financial Proposal (100 Points). Weighted score is 30%.
   Financial proposal: All-inclusive lump-sum cost including 14 days travel to provinces with transportation, accommodation cost for this assignment as per work assignment.

   The maximum number of points shall be allotted to the lowest Financial Proposal that is opened / evaluated and compared among those technical qualified candidates who have attained a minimum 70 points in the technical evaluation. Other Financial Proposals will receive points in inverse proportion to the lowest price.

The contract shall be awarded to candidate obtaining the highest combined technical and financial scores, subject to the satisfactory result of the verification interview and reference checks.

Administrative details:	
Visa assistance required: ☐ ☐ Home Based ☒ Office Based: NSAF Office, MoSVY	**If office based,** seating arrangement identified: ☐ IT and Communication equipment required: ☐ Internet access required: ☐

Costs indicated are estimated. Final rate shall follow the "best value for money" principle, i.e., achieving the desired outcome at the lowest possible fee. Consultants will be asked to stipulate all-inclusive fees, including lump sum travel and subsistence costs, as applicable.

Payment of professional fees will be based on submission of agreed deliverables. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant

Text to be added to all TORs:
Individuals engaged under a consultancy or individual contract will not be considered "staff members" under the Staff Regulations and Rules of the United Nations and UNICEF's policies and procedures and will not be entitled to benefits provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants and Individual Contractors. Consultants and individual contractors are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.

The selected candidate is solely responsible to ensure that the visa (applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. Selected candidates are subject to confirmation of fully-vaccinated status against SARS-CoV-2 (Covid-19) with a World Health Organization (WHO)-endorsed vaccine, which must be met prior to taking up the assignment. It does not apply to consultants who will work remotely and are not expected to work on or visit UNICEF premises, programme delivery locations or directly interact with communities UNICEF works with, nor to travel to perform functions for UNICEF for the duration of their consultancy contracts.

UNICEF offers reasonable accommodation for consultants with disabilities. This may include, for example, accessible software, travel assistance for missions or personal attendants. We encourage you to disclose your disability during your application in case you need reasonable accommodation during the selection process and afterwards in your assignment.