

TERMS OF REFERENCE

International Consultancy for IT support needed for the implementation and management of Census IT infrastructure

(MDV-ToR/2022/03 Dated: 27 Dec 2021)

| TERMS OF REFERENCE (to be completed by Hiring Office) | |
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| Hiring Office: | UNFPA Maldives Country Office |
| Purpose of consultancy: | <p>UNFPA as the population data agency has provided technical support in the collection, processing, analysis, dissemination and use of census data for development in many countries. In the 2020 census round, UNFPA’s key areas of support include Geographic Information Systems and data processing experts, operations support, and training and developing technical and operation guidance tools.</p> <p>As Maldives Bureau of Statistics (MBS) embarks on the preparation for census 2022, one of the key activities to be carried out include electronic data collection for household, individual and for establishments.</p> <p>Real time data collection requires proper information technology (IT) infrastructure to be established with data security, and with regular back-up systems to minimise risk of data loss.</p> <p>Preparations are underway to develop census questionnaires in Survey Solutions and testing of questionnaires and processes in pre-test and pilot census. The consultant is expected to work with the country team to configure, implement and manage electronic data collection solutions from cloud services. The initial set-up is expected to be completed by March 2022 with continuous maintenance of the server for a smooth field operation in September 2022.</p> <p>Hence, UNFPA Maldives is seeking an international consultant to assist the MBS team to implement and manage cloud service for electronic data collection.</p> |
| Scope of work: <i>(Description of services, activities, or outputs)</i> | <p>Scope and diversity of assignment:</p> <p>The assignment will require the Consultant to work closely with the country team in achieving the following deliverables:</p> <p>Specific milestones:</p> <ul style="list-style-type: none"> ● Determine the IT-infrastructure: Work with country team and CAPI consultants to identify appropriate IT-architecture and system for preparation exercises and census operation, including, but not limited to: <ul style="list-style-type: none"> ○ Census database / Centralized Data Hub ○ Pre-test, pilot and census surveys using Survey Solutions ○ Online Survey using Survey Solutions ○ Data monitoring (Dashboards, Automated Reporting) ○ Communication Tools (Viber Bots) ● Set up and deploy IT-infrastructure (Server/Instances, Databases) using cloud service providers (Microsoft Azure) and provide country team with access ● Prepare regular backup systems and strategies to minimize risk of data loss ● Carry out benchmark/performance testing of servers/instances, especially for survey related infrastructure, to ensure smooth census operation. ● Maintain IT-infrastructure (Health Checks) over project period, with a particular focus on census week to ensure 24/7 runtime of system critical infrastructure |

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| | <ul style="list-style-type: none"> ● Ensure data security (Threat detection services, encryption of databases, management of access and resources) ● Consult country team on data protection (e.g. EU GDPR compliance) ● Capacity building of the MBS IT-staff in all key areas of this assignment <p>The above milestones will contribute to the overall outputs of the 2022 Census as follows:</p> <ol style="list-style-type: none"> 1. IT infrastructure set-up completed for before third pre-test - (Feb 2022) 2. Capacity building of MBS IT team completed- (Feb 2022) 3. Data backup set up completed (Feb 2022) 4. Benchmark testing of the server/instances completed (March- Sept 2022) 5. Monitoring of IT infrastructure pre and post Census operation (Feb- Oct 2022) 6. Monitoring of data security and data protection (Feb- Oct 2022) <p>Confidentiality:</p> <ol style="list-style-type: none"> 7. The consultant will have access to confidential data. Sharing these data with the third party is strictly prohibited. |
| Duration and working schedule: | <p>60 Working days in 2022 which includes:</p> <ol style="list-style-type: none"> a) 24 Remote working days b) 3 in-country missions comprising of: <ul style="list-style-type: none"> - Consultant presence for initial set-up and MBS training (10 days in Feb 2022) - Consultant presence for pilot census (6 days in June 2022) - Consultant presence for main census (20 days in Sept 2022) |
| Place where services are to be delivered: | For in-country missions, the consultant will be stationed at Maldives Bureau of Statistics (MBS). For remote support, the consultancy will be undertaken in close coordination with the Maldives Bureau of Statistics (MBS). |
| Delivery dates and how work will be delivered (e.g. electronic, hard copy etc.): | Milestones, outputs and deliverable target dates will be finalized upon recruitment. |
| Monitoring and progress control, including reporting requirements, periodicity format and deadline: | <p>The Consultant will be briefed and debriefed by UNFPA and the Maldives Bureau of Statistics and is expected to keep in close contact with both agencies via email, zoom meetings, viber and other communication.</p> <p>The Consultant will be responsible for the quality and timeliness of the outputs, but will receive support from Maldives Bureau of Statistics.</p> |
| Supervisory arrangements: | The consultancy will be managed by UNFPA Country Office/ MBS; the output will be assessed by the Maldives Bureau of Statistics and UNFPA APRO. |
| Expected travel: | <p>Mission during:</p> <ul style="list-style-type: none"> - Initial set-up mission with MBS in-country training - 10 days in February 2022 - Pilot census – 6 days in June 2022 - Main census- 20 days in September 2022 |

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| <p>Required expertise, qualifications and competencies, including language requirements:</p> | <p>Primary expertise required:</p> <p>Should have thorough knowledge in implementing, managing, and monitoring an organization’s cloud server environment using Survey Solution.</p> <p>Educational background:</p> <p>Advanced University Degree in Information Technology, Software development, Data engineering, Data analysis or other computer related studies.</p> <p>Work experience:</p> <ul style="list-style-type: none"> ● At least 3 Years of hands-on experience in working with other countries especially in Census related IT infrastructure setup. (Preferably azure cloud services) ● Expertise in implementing, managing, and monitoring identity, governance, storage, compute, and virtual networks in a cloud environment, plus provision, size, monitor, and adjust resources, when needed. ● Strong experience in implementing, monitoring and maintaining Microsoft Azure solutions, including major services related to Compute, Storage, Network and Security ● Experience in formulating and implementing security strategies, policies, and procedures ● Strong knowledge of Backup, Restore, Recovery and high availability strategies for Microsoft Azure environments. ● Experience in troubleshooting and resolving Azure environment performance issues, connectivity issues, security issues. ● Windows Server and SQL database (postgreSQL) creation, configuration, upgrade, migration and patching. ● Experience in benchmarking/performance testing of servers/instances. <p>Other competencies:</p> <ul style="list-style-type: none"> ● Project planning, management, implementation and coordination and evaluation ● Excellent communication skills in English language, both oral and written ● Familiar with survey solution software (World bank) |
| <p>Inputs / services to be provided by UNFPA or implementing partner (e.g support services, office space, equipment), if applicable:</p> | <p>Consultant:</p> <ul style="list-style-type: none"> ● Fulfil the stipulated in the contract and the ToR through review of documents, email communications, zoom/Skype calls and meetings ● Maintain close contact by email with MBS and UNFPA ● Communicate any complications regarding the assignment as soon as possible ● Provide contact details that allow MBS and UNFPA to get in contact with the Consultant at any time during the consultancy <p>Maldives Bureau of Statistics:</p> <ul style="list-style-type: none"> ● Assign a focal point to work with the Consultant ● Provide the relevant documents as required ● Provide data as required for the assignment ● Review and provide comments to the deliverables in a timely manner <p>UNFPA Maldives:</p> <ul style="list-style-type: none"> ● Monitor and facilitate the progress of the assignment ● Review and provide comments to the deliverables in a timely manner ● Facilitate necessary contacts ● Make payments upon completion and acceptance of each deliverable |
| <p>Other relevant information or special conditions, if any:</p> | <p>The other conditions that may apply in the undertaking of the assignment include:</p> <p>Basis of payment:</p> <p>Payments based on acceptance of the deliverables.</p> <p>Format of outputs:</p> |

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| | <p>Editable electronic form</p> <p>Language of reports/publications and other documentation and working language in country of assignment: English</p> <p>Ownership of output: Maldives Bureau of Statistics</p> |
| <p>Signature of Requesting Officer in Hiring Office: _____ Date: _____</p> | |