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## ANNEX I

### Terms of Reference Strengthening Evidenced Based Decision Making for Citizen in the Caribbean

I. Position Information	
<b>Job Code Title:</b>	Information Management Systems Consultant – Specification Design
<b>Type of contract:</b>	Individual Consultant
<b>Starting Date:</b>	2 October 2017
<b>Place:</b>	Home Based (with possible travel)
<b>Duration:</b>	Fifteen (30) Working Days
<b>Reporting to:</b>	CARISECURE Team Leader

  

II. Background	
<p>The United Nations Development Programme (UNDP) - Regional Bureau for Latin America and the Caribbean (RBLAC) in collaboration with the UNDP Caribbean network of offices – Guyana, Jamaica, Trinidad and Tobago, Suriname, Barbados and the OECS undertook the formulation of a first Caribbean-wide Human Development Report (CHDR) on Citizens' Security. Using Global UNDP HDR processes, analysis and methodologies, the Caribbean HDR reviewed crime and security in the Caribbean with data analysis and information from a human development perspective. The report defines short and medium term policy recommendations based on the social aspects of security which impact on citizen safety, youth violence, education, unemployment and inequality, inclusive economic growth, migration, and drug use and alcohol abuse. One of the primary recommendations from the report is the urgent need for the region to shift from traditional concepts of state security to a broader multidimensional concept that focuses on citizen security and safety and wellbeing of Caribbean citizens.</p> <p>While the CHDR victimization survey points to high levels of fear of violent crime amongst citizens and the failing of existing policies and approaches, stimulating robust public discourse on the topic presented a challenge. Given the region's dependency on tourism as its main foreign exchange earner, enlisting the full and unconditional support of regional parliamentarians on the matter of facilitating rigorous public debate is critical. Reliable crime statistics are critical for measuring changes in crime levels, monitoring of national and regional responses, developing and evaluating effectiveness of citizen security policies, supporting the analysis and understanding of national and regional crime trends. Collection and organization of data into a statistical form is required to produce valuable information for use in decision-making and to allow for comparison of crime statistics across time and between countries. Lack of reliable and comparable national, sub-regional and regional statistics makes it difficult to fully comprehend the impact of crime and</p>	

violence, and to inform the citizen security policies and strategies needed to effectively respond to these challenges.

An assessment of youth, insecurity and juvenile justice systems, conducted by USAID/ESC in the Caribbean point at the lack of standardized data on crime and violence and their drivers. Raw data is available in different forms and at different stages of the criminal justice process due to the diversity of entities that generate security statistics, the absence of clear guidelines, and weak inter-institutional coordination and information sharing.

National consultations and assessments conducted by UNDP in the Eastern and Southern Caribbean point at four interrelated key problems: 1. Deficient evidence-based citizen security policies due to 2. Lack of reliable and comparable national and regional statistics, 3. Weak coordination at national, sub-regional and regional levels, and, 4. Weak institutional and CSO capacities. 4) The importance of up-to-date data inform prevention programme design, monitoring and evaluation.

The data gaps resulting from these challenges are further aggravated by different definitions of security concepts, non-standardized indicators and inconsistent use of information; dispersion of information and a multiplicity of information sources; sporadic initiatives in the area of information management; lack of unified technical criteria and permanent technical capacities within the national and regional institutions; absence or lack of understanding of a preventive focus in information management; low citizen participation in discussions on citizen security; and absence of mechanisms and capacities to mainstream gender into the analysis and management of citizen security related information and public policies.

Based on this, UNDP seeks to work with countries in the Eastern and Southern Caribbean (Antigua and Barbuda, Barbados, Commonwealth of Dominica, Grenada, Guyana, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago) to improve institutional capacity for evidenced based decision making on youth crime and violence policy making and programming. The focus of this project will be in improving data collection, analysis and use of data for decision making on youth crime policy making and programming. The project intends to achieve two components: 1) improving the quality, comparability and reliability of data and information and youth crime and violence; 2) and regional collaboration and networking on youth crime and violence strengthened. These components will be achieved by improving regional and national institutional capacity to collect, monitor, and analyze citizen security and apply it to decision-making and policy formulation at both levels.

In 2017, CARISECURE beneficiary countries participated in a study tours and knowledge exchange in Belize. During the tour participants were exposed to the processes and current practices in Belize that support automated data collection, analysis, and sharing amongst government agencies and with the public. After the study tours, there was a request from participants for the CarISECURE project to consider a crime-reporting database that is shared by all via a network, and which permits access by different users. To advance the recommendations made by project beneficiaries, UNDP is seeking to hire a Consultant to develop a robust Functional Specification Document (FSD), which includes a three (3) year support service program. The Request for Proposal (RFP) will also cover the design/customization of a web enabled activity database, linking and integration of the activity database with existing databases to produce a web enabled Integrated Management Information System. The consultancy will also look at identifying the best option to provide crime mapping capability to police agencies in the pilot countries

### III. Description of the assignment

The objective of this consultancy is to develop a complete Functional Specification Document (FSD) for:

- A web based Integrated Management Information System, which can adequately integrate information from different systems across ministries or departments and generate graphs and tables.
- The web based system should utilize geo-localization capability to generate hot spots and crime maps using static or time series data;
- A comprehensive and secure programme database, consistent with national infrastructure and capacity requirements of CARISECURE, based on pre-determined indicators and reporting requirements;
- Detailed hardware and infrastructure requirements based on each country: -
  - Recommended minimum download and upload speed should be contemplated based as follows:
    - Barbados (as a Hub or Central Point): 1GB (Download) and 786MB (Upload);
    - Guyana: 4086 Kbps (Download) / 1024 Kbps (Upload)
    - St. Kitts and Nevis: 48 Mbps (Download) / 4 Mbps (Upload)
    - St. Lucia: 100 Mbps (Download) / 10 Mbps (Upload)
  - Detailed Equipment specifications based on the minimum system requirements of the chosen database. (Servers, Switches, Laptops, PCs, Monitors);
  - Provisions for the capturing, cleaning and migration of any existing historical data; and,
- Full standard procedures and guidelines for maintaining the database, and the integrated system.

#### Programme Database.

The Functional Specifications Document must include:

- A. An assessment of existing databases, systems and protocols located throughout the Justice and National Statistical System;
- B. A Functional Specification Document (FSD) for development of a database specific to CARISECURE. The proposal should include partnering with CARISECURE, CARICOM, RSS and National Governments to develop the proposal. Issues to determine include in the proposal:
  - a. What database platform will be used?
  - b. What functional and non-functional requirements are necessary?
  - c. What data and metadata standards will be employed?
  - d. What procedures will be used to ensure data quality (accuracy, integrity, validity and completeness)?
  - e. How will data storage and preservation be handled?
  - f. How will data security management (access, erasure, security, piracy, privacy) be ensured?
  - g. How will long-term access be ensured?
  - h. What procedures will be used to process, upload, transfer and share data?

- C. As it is possible some data or indicators already exist, the FSD should request vendors to include how these data will be cleaned and uploaded it in the new database. The FSD should also consider reporting requirement (standardized and ad hoc) to member states and partners;
- D. The FSD should include a test phase allowing to receive comments from CARISECURE and other stakeholder and for integration into an upgrade version.
- E. The FSD should also request that vendors propose how the System Manager could increase the number of indicators captured;
- F. The FSD should request vendors to incorporate proposed Standard Operating Procedures manual. The manual should include explanation on how:
  - a. Data are entered;
  - b. To aggregate data from different time periods, across countries
  - c. To generate dashboards;
  - d. To generate geo-localization maps;
  - e. To transfer data;
  - f. To import data;
  - g. To export data
  - h. To store and freeze data;
  - i. To secure and protect data;
  - j. To generate backups;
- G. The FSD should specify that vendor proposals must have a detailed chapter on data entry and use;
- H. The FSD should request that vendor proposals address training needs: a training program on the various procedures for the database, including data extraction, table generation, visualization, transfer and management;
- I. The FSD must indicate that vendor proposals should specifically identify who will shelter the Source Code and present to CARISECURE, CARICOM, RSS all requirements required to allow any programme modification/improvement internally;
- J. The FSD should also request vendors to provide information on these issues;
  - a. Is the equipment at hand sufficient?
  - b. How should data storage and preservation be handled (backup systems, Disaster Recovery Plan DRP, and long term storage)?
  - c. How should data security management (access, erasure, security, piracy, privacy) be ensured?
  - d. How should long-term access be ensured?
  - e. How should querying and reporting be handled?
  - f. How should interactive visualization and mapping be handled?
  - g. The web-based UI should be dashboard driven, with standard features such as search functionality, input screens and options to generate reports, graphs, tables, and maps. The system should be able to support the generation of reports at a national and regional level.
  - h. Is there a possibility to increase the capacity of the system to process more data (+25%, +50%, +100%)?
  - i. A detailed Solution Architecture should be requested in the RFP.

### **Integrated Management Information System (IMIS)**

When developing the specifications for the IMIS, the consultant must ensure that Vendor proposals comply with the following:

- A. The proposals should clearly specify the specifications for the design of the IMIS. This process will be done in close collaboration with CARISECURE, CARICOM and member states;
- B. The proposals must provide the solution in case existing databases and systems must be linked and how the data will be cleaned and integrated;
- C. The proposals will provide a series of specifications to describe the system at different levels of detail including program unique specifications will form the core of the configuration baselines. In addition to illustrating different levels within the system hierarchy, the baselines will be defined at different phases of the design process. It must provide related timelines; and should include unit tests and functional tests, training and transition;
- D. The proposals should request all technical documentation, source code, training manuals and OPS;
- E. The proposals will identify who will perform the system deployment on the server;
- F. The proposals will request a training program dedicated to the system administrators;
- G. The proposals will request a three (3) year technical and user support service program;

### **Geo-localization and Mapping**

When developing the specifications for Geo-localizations and Mapping, the consultant must ensure that vendor proposals comply with the following:

- A. The proposals should define with the help of CARISECURE, CARICOM and RSS, the system capacity and outputs; and
- B. The proposals include capacity to generate maps and data for each member states and regionally.

### **Dashboard Capacity**

When developing the specifications for Dashboard capacity, the Consultant must ensure that vendor proposals comply with the following:

- A. The proposals will request on the company will collect needs from all member states and regional entities and submit for approval a proposed dashboard capable to generate all required information;
- B. The proposals will clearly specify that the dashboard should have the capacity to address requests from operational, tactical and strategical levels and have an access code capacity;
- C. The proposals should specific:

- a. Multi-language support;
- b. Support of Internet Explorer down to Version 7, Chrome, Firefox and Opera, if required;
- c. Support of 250 users logged in at the same time;
- d. At least a five (5) year period of storage of data;
- e. Hosting specifications; and
- f. User friendly.

#### **IV. Main Tasks and Deliverables**

The Consultant is expected to deliver the following:

- 1) First draft of the Functional Specification Document;
- 2) Present a proposal/recommendation on which system could provide basic crime mapping capacity for police agencies in the pilot countries, with budget, deployment mechanism.
- 3) Debrief Presentation to main Stakeholders / Participants; and
- 4) Final Version of the Functional Specifications Document adopted by all participants.

#### **V. Qualifications and competencies**

The Consultant should have the following skills and qualifications:

Education:

- Advanced degree (Masters Level) in a relevant field (Computer Science, Data Management, Information technology, and Software Engineering).

Experience:

- At least 10 years' experience related to data management development and archiving, including use of web-enabled platforms and common statistical analysis tools;
- Prior experience with data management of data sets is desirable; and
- Experience in development of web applications.

Skills / Competencies:

- Excellent communication and writing skills; and
- Fluency in English, with excellent drafting skills is required.

#### **VI. Duration**

Duration of field assessment: Thirty (30) working days

It is expected the consultant will organize and hold technical meetings with technical and tactical staff from Barbados, St. Kitts & Nevis, St. Lucia and Guyana. The consultant should not spend more than 3 days per country.

#### **VII. Supervision**

The Consultant will work under the direct supervision of the CARISECURE Team Leader.

#### **VIII. Regimen for payment of fees**

- i. Applicants must submit an economic offer to work in the above-described capacity, and should provide their fees in United States Dollars.
- ii. The contract does not involve any fees (deposits) in advance at the beginning of the consultancy.
- iii. Payments will be made upon submission and approval of deliverables as follows:
  - A first version Specification Document [20%].

- A presentation / debriefing with main Participants [30%].
- A final version adopted by all Participants [50%].

#### **IX. Application Process**

To apply, prospective applicants should submit:

- Letter of Interest stating why you consider yourself suitable for the assignment;
- Brief Technical Proposal incorporating methodology on the approach and implementation of the assignment;
- Curriculum Vitae highlighting qualifications and experience in similar projects;
- Work references - contact details (e-mail addresses) of referees;
- Financial proposal outlining all costs for undertaking the assignment\*; and
- Available date to start the consultancy.

\* This assignment requires travel to Barbados and three pilot countries and applicants must ensure their financial proposal factors in travel cost (airline tickets, hotel, meals, taxi services) when submitting for this consultancy. Additionally, applicants should possess all necessary visas to travel and must make all arrangements themselves to facilitate their travel to complete required field visits.

#### **X. Evaluation Criteria**

The offers that will be received shall be evaluated based on the Combined Scoring method – where the expertise, qualifications of key personnel and methodology will be weighted with to a maximum of 70%, and combined with the financial offer which will be weighted a max of 30%.

##### **Technical Proposal (70%)**

- ☐ Expertise of the Consultant (25%)
- ☐ Methodology, its Appropriateness to the Condition and Timeliness of the Implementation Plan (25%)
- ☐ Qualifications (20%)

##### **Financial Proposal (30%)**

To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP.