

Term of Reference

For Consulting Firm to Provide Services for Improving Sub-National Administrations (SNA) MIS and Developing the Digital Information Sharing Platforms under the Project for Strengthening Transparency and Accountability in Local Governance through Civic Engagement (STA Project)

Assignment	:	Consulting Firm to Provide Services for Improving SNA MIS and Developing the Digital Information Sharing Platforms
Project Name	:	Strengthening Transparency and Accountability in Local Governance through Civic Engagement (STA Project)
Duty Station	:	Phnom Penh
Procurement Method	:	Consulting Firm (Consultants' Qualifications Selection-CQS)
Contract Duration	:	NCDDS-STA-CQS-005 08 Months
Supervisor	:	Monitoring Evaluation and Information Division (MEID-NCDDS)

I. Introduction:

The National Committee for Sub-National Democratic Development (NCDD) is an inter-ministerial committee that has key roles to assist the Royal Government of Cambodia to lead, coordinate, formulate and implement policies related to Decentralization and Deconcentration reform or so called Sub-National Democratic Development Reforms.

The Secretariat of the NCDD (NCDDS) is responsible for assisting NCDD in daily management, preparation and implementation of the National Program for Sub-National Democratic Development, which is a long-term plan for the implementation of Decentralization and Deconcentration policies and the Organic Laws, including the Law on Capital, Provincial, Municipal, District and Khan Administration Management and Law on Commune / Sangkat Administration Management.

Within the framework of Decentralization and Deconcentration reform, so far, the NCDD has been leading and coordinating the implementation of the 10-Year National Program for Sub-National Democratic Development Phase 2 (PN-2) after the National Program for the Sub-National Democratic Development Phase 1 has successfully completed its implementation by the end of 2020.

The NP-2 has goal to “promote democratic development, inclusive, equitable and justice through the modernization of sub-national governance and improved access, quality, and utilization of public service delivery. This will contribute to the elimination of poverty and the improved quality of life for all citizens.”

To ensure the achievement of this goal, the NP-2 has set a specific objective that: “ The structure and governance system of sub-national administrations is modern, autonomous, efficient, transparent and accountable in the provision of public services and local

development, respond to the needs of the people within the jurisdiction of each sub-national administration. Each sub-national administration has the appropriate authority and sufficient capacity to perform all functions under the supervision of the council to ensure accountability to the people.

In order to ensure achieving the above goals and objectives of NP-2, there is a need to improve dissemination of information to public about reform and to promote public participation in the reform process to be more effective during NP-2 implementation period.

In relation to the dissemination of information and the promotion of citizen participation in the reform process, NP-2 has identified specific expected outcomes and key priority activities to be developed and implemented. This include expected outcomes 1.2., which state that “The vision, goals, objectives, and achievements of Sub-National Democratic Development Reforms will be effectively communicated, widely understood, and supported by the national government, SNAs, citizens, and stakeholders.”. To achieve this expected output, NP-2 also identified two priority activities: (1) improving and strengthening the communication strategy and (2) improving the effectiveness of the implementation of the communication strategy.

The identification of these expected outcomes and priority activities is to ensure that the NP-2 implementing institutions at both the national and sub-national levels understand and participate in the implementation of this reform, as well as ensure that people have access to information and widely understand on functions and responsibilities of the sub-national administrations and be able to know what kind of public services they can get from the Sub-national administrations and know their right to receive information and provide feedback for improving the quality, efficiency, transparency and accountability of the Sub-national administration in delivery of public services.

II. Rational for this assignment

Within the NCDDS, several departments manage individual databases related to Decentralization and Deconcentration (D&D) services. However, these systems currently operate in silos, limiting their utility and resulting in redundant data collection efforts. This fragmentation necessitates departments to frequently re-collect data for new programs or interventions, leading to inefficiencies. By implementing a robust integration strategy to connect applications and databases, the NCDDS will enable data sharing across departments. This will facilitate comprehensive analysis, program design, and improved decision-making, reducing the workload associated with duplicate data collection.

At the national level, the government recognizes the importance of integrating data sets across ministries and is implementing CamDX to this end. This platform serves as a digital highway for exchanging and validating information across government ministries. By understanding CamDX's architecture and usage, the NCDDS IT Department can replicate similar mechanisms within its internal systems, paving the way for service integration. This will enable broader data sharing across ministries and ensure that the NCDDS is prepared to consume data from other ministries via CamDX. This approach aligns perfectly with the goals of the Digital Economy and Society Policy.

Cambodia is advancing toward digital governance with initiatives like the Digital Economy and Society Policy. By adopting an internal integration mechanism akin to CamDX, the NCDDS can establish itself as a leader in digital governance. This strategy enhances data security, streamlines workflows, and fosters inter-departmental collaboration, aligning with the national goal of digitizing government services. The assignment seeks to establish this internal integration framework, ensuring that the NCDDS is equipped to achieve specific objectives in data sharing, efficiency, and cross-department collaboration.

The lack of standardized article categories and a consistent approach to document publishing within the Sub-National Administration (SNA) hinders public engagement and effective information dissemination. This has resulted in, Difficulty for citizens to find relevant information, Inconsistent communication from different departments and Reduced public trust and understanding of SNA initiatives.

In order to contribute to the implementation of the communication strategy of the NP-2, with the support of the United Nations Development Program (UNDP) project "Strengthening Transparency and Accountability in Local Governance through Citizen Engagement", funded by the Government of Japan, NCDD-S is looking for consulting firms to deliver two key outputs as following:

III. Objectives for this assessment

- **Objective 1.** To improve Sub-National Administration (SNA) Management Information System
- **Objective 2.** To develop digital information sharing platform in the target municipalities of Siem Reap, Banlung, and Kampong Cham.
- **Objective 3.** Enhance Capacity for Content Writing and Creating Digital Materials

3.1. Objectives 1: Improve SNA Management Information System

The current Management Information System (MIS) structure has some challenges in terms of separate systems. Additionally, the current open data function still needs to be improved. The primary objectives of this improvement initiative are as follows:

1. Enhance or redevelop existing systems by adopting microservices architecture enabling modular components that can communicate and share data through robust APIs.
2. Integrate Single Sign-On (SSO) architecture to allow users seamless access to all systems with a single set of credentials, improving user experience and operational efficiency.
3. Enhance data security and privacy measures within the MIS ecosystem by implementing advanced encryption, access controls, and compliance with relevant data protection regulations to safeguard sensitive information.
4. Minimize data duplication and reduce repetitive work processes by ensuring data consistency and optimizing workflows across different systems.
5. Ensure compatibility and scalability of the redeveloped MIS ecosystem for future expansion and integration with new tools and systems as organizational needs evolve.
6. Enhance data analytics and reporting capabilities by integrating advanced data

analytics and reporting tools to provide comprehensive insights and support data-driven decision-making

3.2. Objective 2 and 3: Develop Digital Information Sharing Platforms and Enhance Capacity for Content Writing and Creating Digital Materials are developed and launched in the three target municipalities

The STA project considered a web-based information system with a website to

share information for the three target municipalities with the following features and functions:

1. Domain Name

- Primary dashboard: Use a consistent and easily recognizable domain for the main dashboard: `tobechosen.gov.kh`
- Municipal subdomains: Create subdomains for each municipality: `municipalityname.tobechosen.gov.kh`

2. User and User Level

- Top Admin Level: Full access to all features, user management, content approval, and system settings
- Capital/Province Level: Manage content and users within their province, approve municipal content, and view province-wide analytics
- District/Municipality/Khan Level: Manage local content, respond to citizen requests, and view local analytics

3. Service Provision Guideline

- Develop and regularly update comprehensive guidelines that outlines service standards, procedures, and expectations for digital services. Ensure accessibility and clarity for all user levels.

4. News and Announcements Content: The website could be used to publish news and announcements about the municipality, such as upcoming events and new programs/services etc. Enhance content management by structuring it into clearly defined categories. Allow for tagging and search functionalities.

Topic/Category:

- Economic
- Health
- Education
- Administrative
- and Dissemination of further topics

- Municipality budget
- 5-year development plan
- Information about support and assistance for poor people
- Needs of the citizens and a place to request for assistance
- Procedures with legal documents and new implemented laws
- Human rights information
- Health and education information
- Job Opportunities

- Other

5. Content Material: Support a variety of media formats to enrich the user experience:
 1. Article Content with Image Gallery: Create visually appealing articles with the ability to embed image galleries.
 2. Sound Clip: Incorporate audio updates for accessibility and engagement.
 3. Video Clip: Embed and host videos for dynamic content delivery.
6. Language
 - Khmer and English switchable language
 - Note: Additional ingenious language for Banlung website (optional)
7. Text to voice/Transcript to Voice: Integrate a text-to-speech feature to enhance accessibility, especially for users with visual impairments or literacy challenges. Ensure the technology supports both Khmer and English (optional).
8. Conduct training on Content Creation and Video Production: Offer comprehensive training programs for municipality officers to maintain high-quality content standards.
 1. News writing topic: teach effective news writing techniques, focusing on clarity, engagement, and accuracy.
 2. Video production through mobile phone: provide practical workshops on shooting, editing, and publishing videos using mobile devices.
9. Conduct training on sharing and promoting content to Social Network Media: Equip users with the skills to maximize the reach and impact of their content.
 1. How to share content to and increase visitors through social network: train on best practices for social media engagement, including timing, hashtags, and audience targeting.
 2. How to create promotional materials and online advertising: teach strategies for designing effective promotional content and leveraging online advertising platforms.
10. Others: user feedback mechanisms, analytics and reporting, mobile optimization, interactive features, security and privacy

IV. Scope of Work

4.1. Improve SNA Management Information System

The scope of work for the selected firm includes, but is not limited to, the following tasks:

1. Initial Assessment:

- Conduct a comprehensive assessment of the existing NCDD's systems, including their architecture, functionalities, and data structures.
- Identify strengths, weaknesses, opportunities, and threats (SWOT analysis) associated with the current systems.
- Engage with key stakeholders through interviews, surveys, and workshops to gather detailed requirements and expectations for the MIS redeveloped ecosystem.

2. Planning and Design:

- Develop a detailed improvement or redevelopment plan, emphasizing a shift towards a microservices architecture or an integrated ecosystem for enhanced interoperability and data sharing.
- Design a scalable and modular architecture for the redeveloped MIS ecosystem, ensuring compatibility with existing and future systems.
- Define API specifications, data exchange formats and integration protocols to facilitate communication between different components of the MIS ecosystem.
- Create a detailed project roadmap, including timelines, milestones, and resource allocation

3. Development and Implementation:

- Implement the planned improvements or redevelopment of the MIS systems according to the established architecture and design.
- Develop and deploy API endpoints and data interfaces to enable seamless communication and data sharing between the different components of the MIS ecosystem.
- Integrate a Single Sign-On (SSO) architecture to provide secure and convenient user authentication and access control mechanisms.
- Implement robust security measures, including data encryption, access controls, and auditing mechanisms, to safeguard sensitive data within the MIS ecosystem.
- Ensure compliance with relevant regulations and standards, where applicable

4. Testing and Quality Assurance:

- Conduct comprehensive testing and quality assurance procedures to validate the functionality, performance, and security of the redeveloped MIS ecosystem.

- Perform integration testing to verify seamless interoperability between different components and external systems.
- Address any identified issues or bugs promptly and efficiently to ensure the stability and reliability of the MIS ecosystem.
- Implement automated testing frameworks where applicable to facilitate continuous testing and quality assurance.

5. Training and Capacity Building:

- Provide comprehensive training sessions and workshops for NCDD-S staff to familiarize them with the new MIS ecosystem and its functionalities.
- Develop training materials, including manuals, video tutorials, and FAQs, to support ongoing learning.
- Offer continuous support and assistance to NCDD-S staff to ensure effective utilization and maintenance of the redeveloped MIS ecosystem.

6. Documentation and Handover:

- Prepare comprehensive documentation, including user manuals, technical guides, and system documentation and process flow diagrams for the redeveloped MIS ecosystem.
- Conduct handover training sessions for NCDD-S staff focusing on system maintenance and ongoing support procedures.
- Establish a knowledge transfer process to ensure that all relevant information and expertise are passed on to the NCDD-S team
- Provide post-implementation support for a specified period to address any issues and ensure smooth transition and operation of the redeveloped MIS system

4.2. Develop Digital Information Sharing Platforms and Enhance Capacity for Content Writing and Creating Digital Materials are developed and launched in the three target municipalities

A Consulting Firm, to be selected and contracted by the NCDD Secretariat (NCDD-S), will support the project to develop the MIS system, including:

1. Web Based Backend Content Management System (a)

Develop a centralized web-based content management system (CMS) that allows each municipality to create and manage their accounts

Each municipality will have a top-level municipality account, which can create a new account for entering its municipality information into the system and posting it on the website.

The CMS will facilitate posting information to a centralized website and individual municipal pages.

2. Portal Dashboard Website

An all in one portal website for disseminating information of each municipality. The website must have a dashboard page that allows visitors to select a province and municipality to move forward to the page of municipality.

The dashboard should provide an intuitive navigation system and a search function to easily locate municipal information.

3. (b)Website for each Municipality (b)

Each municipality has a separate website, but with the same template and prototype for publishing information by using the content management system web-based above.

These websites will be managed via the centralized CMS developed above, ensuring uniformity in design and functionality.

4. (a) and (b) require development as a single codebase, but with a split database (as described earlier) to ensure data separation and security for each municipality. There are functions to add new municipalities, similar to those outlined for the website functionalities
5. Provide Training course to the technical teams and stakeholders of the 03 target municipalities and NCDD-S on how to manage the web-based CMS and individual website, including content creation, updating information, and system maintenance.
6. Provide a reliable web hosting service for at least one year to host the web-based application and all municipal websites. After the free hosting period ends, facilitate the migration of the web-based application and website to NCDD's server.
7. Provide Content Creation and Video Production training. Design a training program to equip participants with the skills necessary to create compelling content and ensure that municipality officers become content creators for various platforms (social media, blogs, websites) and learn video production fundamentals for producing high-quality video content.
8. Provide a training on how to share and promote the content across social media platforms. to equip participants with strategies for maximizing reach and engagement on social media.
9. Develop comprehensive user manuals and provide ongoing technical support for the CMS and municipal websites.
10. Implement and regularly update a feedback system to gather user input on the CMS and websites
11. Ensure robust security protocols are in place to protect data integrity and user privacy. Conduct regular security audits and updates to address potential vulnerabilities

V. Methodology

5.1. Improve SNA Management Information System

The selected firm shall adopt the following methodology to achieve the objectives outlined in this ToR:

2. Inception Report: Designing inception report outlining the implementation plan for the web-based MIS and website detailing the scope, objectives, timelines and resource allocation.
3. Initial Assessment: Conduct a thorough assessment of the existing MIS systems to identify strengths, weaknesses, opportunities and threats (SWOT analysis) Evaluate the current technological infrastructure, data management practices, and user feedback.
4. Requirements Gathering: Collaborate with NCDD-S stakeholders, including end-users, management, and IT staff, to gather detailed requirements and specifications for the redeveloped MIS ecosystem. Use techniques such as interviews, surveys, workshops, and use case analysis to ensure all requirements are captured.
5. Design and Development:
 - System Design:
 - Utilize best practices in software engineering and microservices architecture to design and develop a modular and scalable MIS ecosystem. Conduct a thorough analysis and design of the system structure and model according to the System Development Life Cycle (SDLC)
 - Develop UX / UI wireframes and prototypes (using Figma tools) for illustrating system flow and functionality
 - Technology Stack:
 - Develop the system using an Open Source operating system and Long-Term Support versions such as Ubuntu / Cent OS, PHP Laravel Framework, VueJs, NuxtJs and MySQL / PostgreSQL DBMS.
 - Ensure the application interface is responsive and adaptable to various screen sizes
6. Keyword Definition: Define and integrate keywords (Labels) to be used in the system in Khmer and English to facilitate multilingual support.
7. API Development: Create robust API functionalities for integration / sharing data between Web-App, Mobile-App and other existing NCDD systems
8. Security Implementation: Implement comprehensive security modules, including protection against XSS, SQL injection, RCE, IDOR, CSRF and other vulnerabilities for both web and mobile applications. Conduct regular security audits and penetration testing.
9. Backup and Recovery: Implement automatic and scheduled backup mechanisms for the database management system (database) and images, document files and other media files. Provide options for manual backups to ensure data integrity and availability
10. Testing and Quality Assurance: Perform rigorous testing and quality assurance

procedures, including unit testing, integration testing, system testing, performance testing and user acceptance testing (UAT) to validate the functionality, performance, scalability, reliability and security of the redeveloped MIS ecosystem.

11. Deployment and Implementation: Deploy the redeveloped MIS ecosystem in a phased manner, ensuring minimal disruption to ongoing operations. Host the system in two environments: 01. Official use (Production) 02. Testing part (UAT)
12. Training and Capacity Building: Conduct comprehensive training sessions and workshops for NCDD-S staff to familiarize them with the new MIS system and its functionalities. Develop training materials, including user manuals, video tutorials, and FAQs.
13. Documentation and Handover: Prepare comprehensive documentation, including system architecture, design specifications, user guides, and maintenance manuals and provide handover training and ongoing support to NCDD-S staff for the smooth operation and maintenance of the MIS ecosystem.
14. Ongoing Support and Maintenance: Establish a support mechanism for ongoing maintenance, troubleshooting, and updates to the system. Ensure continuous improvement and optimization of the system based on user feedback and technological advancements.
15. Carry out other work as necessary to ensure the successful and comprehensive development and deployment of the web-based MIS and website.

5.2. Develop Digital Information Sharing Platforms and Enhance Capacity for Content Writing and Creating Digital Materials are developed and launched in the three target municipalities

The features of the methodology should include the following:

1. Inception Report: Develop an inception report outlining the scope, objectives, deliverables, timelines, and resources required for the implementation of the web-based and website proposed above
2. System Analysis and Design: Conduct a detailed analysis and design of the system structure and model according to the System Development Life Cycle (SDLC) and develop UX / UI wireframes and prototype designs (using Figma tools) for visualizing the flow and function of the system
3. Stakeholder Consultation: Organize consultation meetings between the consulting firm, relevant assistance personnel and the NCDD Secretariat (NCDD-S) to discuss and agree on the structure and model of the web-based and website
4. System Development: Develop a web-based and website based on the agreed system structure and model and ensure use of an Open Source operating system and Long-Term Support versions such as Ubuntu / Cent OS, PHP Laravel Framework, VueJs, NuxtJs and MySQL / PostgreSQL DBMS.
5. Keyword Definition: Define and integrate keywords (Labels) to be used within the system in both Khmer and English.
6. Responsive Design: Design the application interface to be flexible (responsive interface) ensuring compatibility across various screen sizes and devices (desktops, tablets, and smartphones).

7. Administrative Functions: Implement administrative functions that can perform Create Read Update Delete (CRUD) operations and recovery from trash functions based on the needs of each module / function.
8. Data Import: Import data from Excel / CSV into the system if required by any module / feature
9. Access Control: Define and implement user access levels and permissions to perform CRUD functions.
10. User Activity Tracking: Implement logging mechanisms to record and track user activity within the system for audit and monitoring purposes
11. API Integration: Develop API functionality to facilitate integration / sharing data between Web-App, Mobile-App and other existing NCDD systems
12. Security Measures: Implement robust security measures to protect against common vulnerabilities such as XSS, SQL injection, RCE, IDOR, CSRF and others
13. Technical Documentation: Provide detailed technical documents on how to host the system (hosting), including server setup, configuration, and maintenance procedures.
14. Hosting Setup: Set up and configure the hosting environment for the web-based system and website in two parts: 01. Official use (Production) 02. Testing part (UAT)
15. Backup Solutions: Implement automated and scheduled backup solutions for the database management system (database) and images, document files and other media file. Provide manual backup options for additional data security.
16. Training and Documentation: Prepare documents and conduct technical training sessions for system management and provide the latest source code to the NCDD Secretariat (NCDD-S).
17. Content Creation and Video Production Training

1. Pre-Training

- Needs Assessment: Conduct needs assessment with the municipality officers to understand their specific goals and the target audience's prior knowledge.
- Content Customization: Customize and tailor training content to address the identified needs and ensure relevance to the participants' level.
- Participant Materials: Prepare and distribute beforehand training manuals, templates, and any additional resources.

2. Training Delivery

- Interactive Learning: Employ a combination of lectures, discussions, and hands-on exercises to keep participants engaged.
- Practical Application: Focus on hands-on exercises to allow participants to apply learned concepts to practical scenarios related to content creation and video production.
- Q&A Sessions: Allocate dedicated time for participants to ask questions and clarify any doubts throughout the training.

18. Social Network Media Training

1. Pre-Training

- **Needs Assessment:** Collaborate with the municipality officers to understand their specific goals, target audience, and preferred social media platforms.
- **Content Customization:** Tailor training content to address the identified needs and ensure relevance to the current social media landscape and participant experience level.
- **Participant Materials:** Prepare and distribute beforehand training manuals, templates, and platform-specific resources.

2. Training Delivery

- **Interactive Learning:** Use a combination of lectures, case studies featuring successful social media campaigns, group discussions, and hands-on exercises to engage participants.
- **Platform-Specific Focus:** Provide specific strategies and best practices for each major social media platform (Facebook, Instagram, Twitter, etc.).
- **Real-world Examples:** Provide real-world examples of effective social media content and campaigns to illustrate key concepts.
- **Skill-Building Exercises:** Conduct practical exercises to develop participants' skills in crafting compelling social media captions, utilizing hashtags, and creating engaging content calendars.

19. Carry out other work as necessary to ensure the successful and comprehensive development of the web-based system and website.

VI. Qualification and Experience section

Consulting Firm must have the qualifications and experience in the field of information technology as following:

- At least 5 years' experience in managing data systems or developing similar system.
- Demonstrated experience in software development, with a focus on developing and implementing MIS systems or similar projects.
- Capacity to provide microservices architecture, API design, and integration, with a proven track record of delivering scalable and interoperable solutions.
- Capacity to implement Single Sign-On (SSO) solutions and integrating authentication and access control mechanisms into complex software ecosystems.
- Strong understanding of data security and privacy principles, with experience in implementing robust security measures to safeguard sensitive information.
- Capacity to provide training and capacity building support to end-users and stakeholders to ensure effective utilization of the redeveloped MIS ecosystem.
- Excellent communication and project management skills, with the ability to

collaborate effectively with diverse stakeholders and manage project timelines and deliverables.

- Experience in designing dashboard systems for data visualization and report engine adaptation.
- Experience in developing Content Management Systems (CMS) and Content Sharing Platforms is a plus.
- Proven ability to implement innovative technological solutions tailored to specific organizational needs.
- Demonstrated ability to deliver high-quality solutions within budget constraints.
- Presence in Cambodia.
- Has registered as required by Cambodian law.
- Demonstrated ability to establish and maintain strong working relationships with stakeholder from different sectors.
- Experience working with government counterparts and international organization and/or development partners.
- Should be able to work in a multicultural and multidisciplinary team environment and with the ability and willingness to travel inside Cambodia, as necessary.
- **National Team Leader:** should have at least 5 years of professional experience in web-based and mobile application development and ICT, with a strong portfolio showcasing quality projects, Bachelor's Degree in computer science and IT related field. He/she should have in-depth understanding of mobile application development with at least 3 years' experience, he/she should have proficiency in IT project management and team leadership, experience with international donor relations would be an asset. He/she should preferably have strong communication skills, strategic thinking, and the ability to work collaboratively in diverse teams. Candidates should provide a portfolio containing examples of their work achievements or links, together with references to verify authenticity and quality of the examples provided.
- **National team members:** should have at least 3 years experiences in the related field, solid understanding of the concepts of user experience (UX), user interface (UI) design principles and conceptual design, proficiency in developing mobile applications for both Android and iOS platforms. The team should have at least 04 members with specific roles and expertise as outlined below:

1. Developer:

- Bachelor of Computer Science or equivalent
- At least 5 years' experience in Web Development
- Experience in content management system (CMS) development, SEO optimization and Content Sharing
- Other relevant skills such as Progressive Web Applications, Single-page Websites and Mobile Application Development are encouraged.
- Knowledge of system analysis and design (System context diagram, Process diagram, ERD)
- Knowledge of web programming languages such as VueJs, NuxtJs, JavaScript, jQuery, HTML, HTML5, CSS, and CSS3

- Knowledge of Web User Interface Design (UI), Security Principles, Object-Oriented Design, Web Services (REST / SOAP / API / Swagger), Multimedia Content Development
- Knowledge of programming with back-end languages such as PHP, Laravel Framework
- Knowledge of MySQL / PostgreSQL database management system
- Experience in managing and leading IT teams
- Presence in Cambodia
- Good communication skills in English
- Values such as integrity, responsibility, teamwork and creativity
- Required to travel to destinations in Cambodia as needed.
- Provide portfolio and references containing examples of work achievements or links to all completed systems to confirm the services and experiences of the stakeholders.

2. DevOps:

- At least 3 years of experience in DevOps and Web, Mobile Apps deployment.
- Proficiency in continuous integration/continuous deployment (CI/CD) pipelines.
- Experience with cloud platforms and infrastructure as code (IaC).
- Strong understanding of automation tools and scripting languages.

3. Trainer of Content Creator and Video Production:

- Academic Background: A bachelor's degree in a relevant field such as communications, marketing, journalism, or media production is preferred.
- Content Creation Certification (Optional): Certifications in content marketing, copywriting, or social media marketing can demonstrate expertise in creating engaging content.
- Video Production Certification (Optional): Certifications in video editing software (e.g., Adobe Premiere Pro, Final Cut Pro, Cap cut) or video production fundamentals can showcase technical skills.
- Minimum 3-5 years of experience in content creation and/or video production.
- Proven track record of creating compelling content (written or video) for various platforms.
- Experience developing and delivering training programs on related topics.
- Strong communication and presentation skills to effectively engage participants.
- Ability to adapt training content to different audience levels and learning styles.

4. Trainer for promoting content on Social Network Media:

- Academic Background: A bachelor's degree in marketing, communications, or a related field is preferred.
- Social Media Marketing Certification (Optional): Certifications from platforms like Facebook Blueprint or Hootsuite Social Marketing can demonstrate expertise.
- Minimum 3-5 years of experience in social media marketing and content promotion.
- Proven track record of developing and implementing successful social media campaigns across various platforms.
- Experience creating engaging social media content (text, images, videos).
- Strong analytical skills to interpret social media data and translate insights into actionable strategies.
- Excellent communication and presentation skills to effectively engage participants.

VII. Detail Tasks

Consulting Firm selected and contracted with the NCDD Secretariat (NCDD-S) should ensure the following key results are achieved:

No	Key Task
Objective 1: Improve SNA Management Information System	
1	Prepare an Inception Report outlining the implementation plan for the web-based system and website
2	Prepare initial assessment report with SWOT analysis
3	Prepare detailed requirements gathering report
4	Prepare system design, architecture, wireframes and prototypes, technology specifications
5	Develop the web-based system and website per system design including APIs, security modules and backup mechanisms
6	Demo and Testing including unit testing, integration testing, system testing, performance testing, vulnerability and penetration testing, user acceptance testing (UAT)
7	Deploy the web-based system and website to the server
8	Package Source Code and Transfer to NCDD-S

9	Develop technical guidance, management and how to manage the web-based system and website and provide training
10	Preparation of final report of completion
11	Provide project maintenance and user support at least 02 months
12	Besides the above deliverable the selected consulting firm shall have regular meetings with NCDD-S to update the progress.
Objective 2: Digital Information Sharing Platforms are developed and launched in the three target municipalities	
1	Prepare an Inception Report outlining the implementation plan for the web-based system and website
2	Prepare system analysis report and system design document (design, architecture, wireframes and prototypes, technology specifications)
3	Conduct stakeholder consultations and compile feedback report
4	Develop the web-based system and website per system design including CRUD operations, data import functionality, access control, activity logging, APIs, security modules and backup mechanisms
5	Demo and Testing including unit testing, integration testing, system testing, performance testing, vulnerability and penetration testing, user acceptance testing (UAT)
6	Deploy the web-based and website to the server
7	Package Source Code and Transfer to NCDD-S
8	Develop technical guidance, management and how to manage the web-based and website and provide training
9	Preparation of final report of completion
10	Provide project maintenance and user support at least 02 months
11	Besides the above deliverables the selected consulting firm shall have regular meetings with NCDD-S to update the progress.
Objective 3: Enhance Capacity for Content Writing and Creating Digital Materials	
1	Content Creator and Video Production

2	Promote the content to Social Network Media Training
3	Besides the above deliverables the selected consulting firm shall have regular meetings with NCDD-S to update the progress.

VIII. Key Deliverables

No	Key Deliverables	Milestone by Month	Payment schedule
1	Inception Report	July	30%
2	System study report of architecture both Micro Service and Digital share platform	August	0%
3	- Microservice to improve SNA Management Information System - Progress report of the development	September-October	20%
4	- Digital information sharing platform - Progress report of the development	September-October	20%
5	Enhance Capacity Building to develop digital materials and System - Conduct training on How Manage Digital information sharing platform and Content Creation and Video Production Training (03 municipalities officer, 05 person/ municipality) - Conduct training on Social Network Media Content Sharing (03 municipalities officer, 05 person/ municipality)	December	20%
6	Final Project and Report	December 2024	10%

IX. Time Frame

All deliverables are to be completed by December 2024, including the core tasks of development of MIS (web-based system and website).

.....