

**Town Development Fund  
New Baneshwore, Kathmandu**



**Terms of Reference (ToR)**

<b>Programme:</b> Municipal Finance and Capacity Building (MFCB) Programme	<b>Assignment:</b> Establish Electronic Building Permit System
<b>Municipalities:</b> Four Municipalities	<b>Assignment Period:</b> 6 months

**1. Background**

Town Development Fund (TDF), an autonomous entity, functions as a financial intermediary institution for the development of urban infrastructures in Nepal. It provides financial support to municipalities and emerging towns to implement social and revenue generating projects. It also supports to strengthen the technical, managerial and financial capabilities of municipalities in formulation, implementation and evaluation of urban development plans and programs. TDF aims to alleviate economic and social poverty in urban sector through long-term financing in social and revenue generating infrastructure projects. It aspires to mobilize blended finance alternatives and strives to offer long-term infrastructure finance solutions through its techno-financing experience, innovations, and by continuously upgrading its institutional capacity.

Recently, TDF has received a financial support from the European Union (EU) under the Thematic Programme: Civil Society Organization and Local Authorities (Contract: CSO-LA/2018/402-797) for implementation of 'Municipal Finance and Capacity Building (MFCB) Programme' to strengthen local authorities and the TDF to foster local economic development and climate resilient investment through blended financing. One of the activities of MFCB is to introduce and establish Electronic Building Permit System (e-BPS) in four municipalities.

United Nations Development Programme (UNDP)/Nepal have developed the software system of electronic building permit system (e-BPS) and has been implementing in the municipalities since 2015. e-BPS was initiated by UNDP's Comprehensive Disaster Risk Management Program (CDRMP) which aims to provide support in the areas of institutional and legal systems within disaster risk management, climate risk management, community-based disaster risk management, and emergency preparedness and response systems. TDF in collaboration with UNDP/Nepal, under the institutional development component of MFCB Programme, intends to hire consulting firm to implement Electronic Building Permit System in four municipalities.



## **2. Purpose and rationale of the assignment:**

The Constitution of Nepal, 2015 has adopted the federal structure with three tiers of government. The Constitution has provisioned for strong local government to provide efficient and effective service delivery at the local level. The municipalities are progressively moving towards developing smart cities. The first step of this endeavor is to initiate digitization and implementation of digital systems in the management and governance of the municipality as well as in the day to day life of the citizens. Electronic Building Permit System (e-BPS) is an important tool for the municipalities to improve as well as digitize building permit processes.

Electronic Building Permit System allows citizens to submit and track the status of their application at any time. Likewise, it allows the municipal staffs to maintain building records and building permit database. A properly designed e-BPS not only compensates for the shortage of skilled human resources currently faced by municipalities but also promotes transparency and accountability in the issuance of Nepal National Building Code (NBC), municipal building bylaws and building permit procedure compliant building permits and completion certificates. The purpose of the assignment is to support the four municipalities through customization of e-BPS software, digitization and documentation of the past building records of the municipalities, prepare manual and guidelines and provide trainings to implement e-BPS to the officials of the municipalities. During this process of developing the system, consultation with the municipal authority, municipal technical staffs and TDF shall be done regularly.

## **3. Objective of the assignment**

The main objective of the assignment is to establish and implement Electronic Building Permit System (e-BPS) for the four municipalities of the MFCB programme.

The specific objectives of the assignment are as follows:

- To assess the current building permit system of the municipality to introduce and establish e-BPS.
- To develop customized software for e-BPS as per Nepal National Building Code (NBC), building bylaws and building permit procedure of each municipality. TDF will provide the functional e-BPS system to the consultant.
- To digitize building drawings/ maps and documentation of building permit related information of 40,000 existing houses of four municipalities.
- To conduct workshop and provide training to the municipal officials on the operation and maintenance of e-BPS software.
- To recommend suitable ICT systems and logistic requirements and provide software implementation support to the municipality to ensure the continuity of the system.



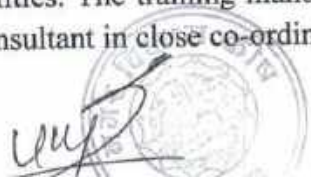


#### 4. Scope of service/works

The major task of the proposed assignment will be to develop and implement customized software applications for the management of the building drawings submitted for municipal permission to construct buildings, including automation of the process of building approval, digital archiving of building drawings and maps, verification of adherence to NBC and building bylaws. The system should be aligned with the existing building permit procedure of the respective municipalities. The system design, development, installation, pilot testing and implementation should be undertaken by the service provider.

The consultant shall work in close co-ordination with MFCB team of TDF and respective municipal officials to conduct the following tasks.

- a. The consultant shall assess the current process of building permit system, municipal bylaws and NBC, permit fee processing system and, requirements and updates for permit certificates at different stages of the municipalities.
- b. The consultant shall review the effectiveness of service provided by the existing e-BPS system implemented in at least two municipalities and provide suggestions on the improvement of the system.
- c. The consultant shall develop customized e-BPS software systems for each municipality to manage the building permit system based on the NBC, municipal building bylaws and municipal building permit procedure. TDF will provide the functional e-BPS system for customization to the consultant and TDF will have full ownership of the system. The consultant shall in no circumstances have access to the functional system beyond the scope of this project.
- d. The system shall include the geographical co-ordinate of the building so that a real time progress of e-BPS with the details of the building of each municipality shall be produced in the map for the local representatives and municipal officials to monitor.
- e. The consultant shall provide support to the municipalities for the annual maintenance of the system for a year.
- f. The consultant shall digitize the building drawings/ maps and documents of building permit related information for the archival process of existing building data of 40,000 existing houses of the four municipalities.
- g. The consultant shall organize an introductory workshop in each municipality on the electronic building permit process to the mayor, deputy mayor, municipal section chiefs, ward chairpersons, and ward secretaries to help them understand the e-BPS to ward level for smooth implementation.
- h. The consultant shall provide training to the municipal technical officials (engineers and IT experts) on the operation and maintenance of e-BPS which will allow them to manage and process building permits and ensure their compliance within the NBC framework, building bylaws and building permit system of the respective municipalities. The training manual, content and operation manual shall be prepared by the consultant in close co-ordination with the TDF/ MFCB team.



- i. The consultant shall ensure efficient service delivery mechanism between the municipality and the house owner via two-way communication at each step of e-BPS.
- j. The consultant shall identify and recommend suitable ICT systems and logistic requirements to the municipality to ensure the continuity of the system.
- k. The consultant shall provide software implementation support to ensure a successful installation and a hassle free operational environment along with pilot testing of the software.

## **5. Approach/Methodology**

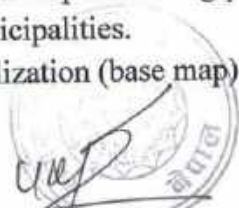
The Consultant will work in close cooperation and coordination with TDF team, municipality and other relevant stakeholders prior to developing the e-BPS system. E-BPS will be developed to assist municipalities to improve their current building permit process by ensuring the effective compliance of the NBC and building bylaws in urban regions, thus promoting safe building practices and planned urban development for the entire nation.

E-BPS is a web-based application through which building permit applications are processed and current building records are maintained. This is an effective and efficient system to monitor and evaluate the current state of building constructions in a municipal area. E-BPS is a distributed system and will be implemented at both the municipal offices as well as their respective ward offices. The system allows citizens to submit as well as track their application(s) and its status respectively over the internet.

TDF in collaboration with UNDP-Nepal will provide the functional e-BPS system to the consultant. The consultant will customize the system for each municipality to manage the building permit system based on the NBC, municipal building bylaws and building permit procedure of the municipality. The consultant will review the effectiveness of service provided by the existing e-BPS system implemented in at least two municipalities and provide suggestions on the improvement of the system. The consultant should ensure efficient service delivery mechanism between the municipality and the house owner via two-way communication at each step of e-BPS. Similarly, the consultant will also digitize the drawings and documents of building permit related information of 40,000 existing houses of four municipalities.

## **6. Expected Output/ Results**

- a. Assessment report on the current status of building permits system in 4 municipalities.
- b. Review report on the effectiveness of service provided by the existing e-BPS system implemented in at least 2 municipalities.
- c. Final version of customized software for managing municipal building bylaws, NBC and municipal building permit procedure compliant e-BPS including program code in 4 municipalities.
- d. Visualization (base map) of buildings in e-BPS system.





- e. Final report on customization and upgradation of the electronic building permit system software of each municipality.
- f. Report on digitization and documentation of building maps/ documents and information in each municipality. The digitized database of existing buildings of the municipalities to be handed over to the respective municipalities.
- g. Report and training manual on providing hands-on and formal training sessions on the e-BPS software to engineers, municipal staff, and others as appropriate, from or recommendation by four municipalities.
- h. Final E-Building Permit System Operation Manual.
- i. System validation and User Acceptance Test (UAT) evidence from the municipality.

### 7. Communication and Coordination

The consultant shall communicate and coordinate with TDF, municipalities and stakeholders during project planning and implementation.

### 8. Duration of Work

The duration of the assignment will be 6 months.

### 9. Human Resources

The project team should include the following members:

S.N.	Key Personnel	No. of Person	Person-Months (Input)	Qualification/ Experiences	Key Responsibilities
<b>Key Experts:</b>					
1.	Team Leader/ System Analyst	1	6	<ul style="list-style-type: none"> <li>▪ Master's degree in Computer Engineering, Electronics and Communication Engineering; Information Management or relevant area with 15 years of relevant experience.</li> <li>▪ Knowledge of working with local bodies and other governmental authorities is an added benefit.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Overall coordination and assist the entire team of consultants in performing their responsibilities inputs to complete the work on time.</li> <li>▪ Supervise team members and monitor their performance to ensure the quality of work.</li> <li>▪ Ensure the system flow and validity of the system.</li> <li>▪ Manage and conduct presentation as and when required.</li> </ul>

2.	ICT/ Expert	IT	2	6	<ul style="list-style-type: none"> <li>▪ Bachelor's degree in Computer Engineering, Electronics and Communication Engineering; Information Management or relevant area with 5 years of relevant experience</li> <li>▪ Knowledge of working with local bodies and other governmental authorities is an added benefit.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure the validity of the system</li> <li>▪ Support team leader/senior civil engineer to perform his/her responsibilities.</li> <li>▪ Work in close coordination with other professionals.</li> </ul>
3.	Civil Engineer/ Architect		1	4	<ul style="list-style-type: none"> <li>▪ Bachelor's degree in civil engineering or architecture with minimum of 3 years experience in building construction.</li> <li>▪ Familiarity with building code and municipal building bylaws required.</li> <li>▪ Knowledge of working with local bodies and other governmental authorities is an added benefit.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ensure the e-BPS software is municipal building bylaws and NBC- compliant.</li> <li>▪ Prepare assessment report on the current status of building permits system.</li> <li>▪ Support team leader/senior civil engineer to perform his/her responsibilities.</li> <li>▪ Work in close coordination with other professionals.</li> </ul>
4.	Local Governance Expert		1	4	<ul style="list-style-type: none"> <li>▪ Master's degree in governance, public policy, public administration, sociology, rural development, geography, economics, development study</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prepare assessment report on the current status of building permits system (procedure and regulation).</li> <li>▪ Support team leader/senior civil engineer to perform</li> </ul>

				<p>and any other relevant subject with at least 7 years of professional work experience in local/urban governance</p> <ul style="list-style-type: none"> <li>▪ Knowledge of working with local bodies and other governmental authorities is an added benefit.</li> </ul>	<p>his/her responsibilities.</p> <ul style="list-style-type: none"> <li>▪ Work in close coordination with other professionals.</li> </ul>
<b>Non -Key Experts</b>					
1	Technical Support Staff	2	4	<ul style="list-style-type: none"> <li>▪ Intermediate/ 10+2 equivalent degree in any discipline.</li> <li>▪ One year of experience of working in digitization of maps, drawings and documents.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Support for scanning and digitization of maps, drawings and documents.</li> <li>▪ Work in close coordination with other professionals.</li> </ul>
2	Legal and institutional Expert	1	1	<ul style="list-style-type: none"> <li>• Bachelor's degree in Law or 5 years if relevant work experience</li> </ul>	<ul style="list-style-type: none"> <li>• To analyze the legal and institutional assessment of the proposed project.</li> </ul>

### 10. Reporting Requirements (Key Deliverables)

S.N.	Key milestones	Contents	Timeline	No. of copies	Language
1	Inception Report	<ul style="list-style-type: none"> <li>• Inception Report with Detailed Methodology, software installation plan and outline of reports (Tentative contents).</li> </ul>	Within 2 weeks after signing the agreement	2 copies	English



2	Introductory Workshop to the Elected Bodies and Municipal Officials	<ul style="list-style-type: none"> <li>• Workshop on electronic building permit process to the mayor, deputy mayor, municipal section chiefs, ward chairpersons and ward secretaries.</li> <li>• Photographs and minutes of training.</li> </ul>	Within 1 month after signing the agreement		Nepali
3	Assessment and Review Report	<ul style="list-style-type: none"> <li>• Assessment of municipal bylaws and NBC, building permit procedure (current building permit system, permit fee processing system and requirements and updates for permit certificates at different stages) of each municipality.</li> <li>• Review report on the effectiveness of service provided by the existing e-BPS system implemented in at least 2 municipalities.</li> </ul>	Within 2 month after signing the agreement	2 copies	English
4	Progress Report	<ul style="list-style-type: none"> <li>• Progress report on system customization with visualization (base map) of buildings in e-BPS system.</li> <li>• Progress report on digitization of data.</li> </ul>	Within 3 months after signing the agreement	2 copies	English
5	Draft Report	<ul style="list-style-type: none"> <li>• Draft Report on system customization and digitization.</li> <li>• Draft Presentation to TDF.</li> <li>• System demonstration before the finalization of the product.</li> <li>• Outline of the workshop and training to municipal officials.</li> </ul>	Within 5 months after signing the agreement	2 copies	English



		<ul style="list-style-type: none"> <li>• Draft Electronic Building Permit System Operation Manual.</li> <li>• All proceedings related to the project.</li> </ul>			
6	Training to Municipal Technical Officials	<ul style="list-style-type: none"> <li>• Training to municipal technical officials on the operation and maintenance of e-BPS.</li> <li>• Training manual and full report on hands-on trainings</li> <li>• Photographs and minutes of training.</li> </ul>	Within 5.5 months after signing the agreement	3 hard and 1 soft copy of training module and manual	Nepali
7	Final Report	<ul style="list-style-type: none"> <li>• Final Report incorporating all the feedbacks of Draft Presentation along with comment response sheet.</li> <li>• Final Electronic Building Permit System Operation Manual.</li> <li>• Digitized data handover evidence from each municipality.</li> <li>• All proceedings related to the project.</li> </ul>	Within 6 months after signing the agreement	3 hard and 1 soft copy of final report and manual to TDF and municipality	Report should be both in Nepali and English language. The manual should be in Nepali.
8	Final version of customized e-BPS software including program code and access codes.	<ul style="list-style-type: none"> <li>• System validation and User Acceptance Test (UAT) evidence from the municipality</li> </ul>	Within 6 months after signing the agreement		

### 11. Mode of Payment

Installment	Timeline	Payment in (%) of Total Agreement Amount
First Installment	After approval of Inception Report	20%
Second Installment	After the Introductory Workshop to the Elected Bodies and Municipal Officials	20%

Third Installment	After approval of Draft Report	40%
Fourth Installment	After approval of Final Report	20%

**12. Submission of Expression of Interest:**

Consulting firms must submit the following documents:

1. Expression of Interest (EOI)
2. CV of key expert(s)
3. Firm/company valid registration certificate
4. VAT registration certificate
5. Tax clearance certificate with audit report of last fiscal year
6. Company profile

