



Guideline for Licensing of Cadastral Surveyors

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Department of Survey and Mapping
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FOREWORD

Cadastral surveying is indispensable in safeguarding the citizen's land rights by establishing legal boundary of the land and providing the spatial component to the Thram. A cadastre forms the basis for a legal land registry. It also plays a pivotal role in land dispute resolution. The cadastral data also forms an important component of the National Spatial Data Infrastructure.

Cadastral surveying involves definition, redefinition, mutation of parcel boundary and noting encumbrances associated with land based on a set of national standards. Such standards pertain to field procedures, data processing and adherence to relevant laws. A surveyor needs to be competent in all aspects of cadastral surveying to obtain a license to practice cadastral surveying.

The Land Rules and Regulations 2007 states that only certified or licensed surveyors can practice cadastral surveying. This Guideline provides a framework for licensing cadastral surveyors in the country. The Cadastral Surveyors Licensing Board of Bhutan within the aegis of the National Land Commission shall serve as the core institution mandated with licensing cadastral surveyors and monitoring their professional performance.

Based on the licensing framework, a surveyor meeting basic academic and professional qualification will need to undergo rigorous assessments in technical, legal and other areas of competencies before obtaining the license.

The system of licensing the cadastral surveyors will help in upholding the standards in cadastral surveying and delivering quality cadastral surveying services.



(Dasho Pema Chewang)
Secretary

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1. Introduction

This guideline is developed by the Cadastral Information Division (CID) in line with the Section 218(h) and 218(e) of the Land Rules and Regulations of Kingdom of Bhutan, 2007 to facilitate the registration and certification of cadastral surveyors.

The licensing of cadastral surveyors is essential in ensuring professional competency in cadastral surveying to maintain public confidence in the system. With the implementation of this guideline, all cadastral surveyors shall be required to register with the Cadastral Surveyor's Licensing Board of Bhutan and obtain a license of competency to practice cadastral surveying in the country. The license shall set a threshold for entry to ensure that licensed cadastral surveyors are adequately competent- qualified, knowledgeable, skilled and experienced to perform cadastral surveying works.

All licensed surveyors shall be subject to cadastral auditing every 3 years to assess their competency and to facilitate professional development.

This guideline has been developed with the objective to guide both the Cadastral Surveyors Licensing Board and the aspiring cadastral surveyors with the registration & licensing process and the required competencies to practice cadastral surveying. Specifically, it describes the:

- a. composition and functions of the Cadastral Surveyors Licensing board;
- b. requirements and procedure to register as licensed cadastral surveyor;
- c. the areas of competencies that cadastral surveyor must meet for registration;
- d. code of Ethics & Professional conduct; and
- e. complaint, investigation & discipline procedures

2. Constitution & Proceedings of the Licensing Board

The Cadastral Surveyors Licensing Board of Bhutan shall be established to assess and license cadastral surveyors to practice cadastral surveying in Bhutan.

2.1. Constitution of the Board

The Board shall consist of 7 members:

- a) Secretary (Chairperson);
- b) Director, DoSAM;
- c) Director, DoLAM;
- d) 2 members, who shall be licensed surveyors and nominated by the surveyor association;
- e) Legal officer; and

- f) Chief, CID (Member Secretary).

Except for ex-officio members, members stated in d) can be changed annually by the surveyor's Association (ISSSPB), but they shall be eligible for reappointment.

2.2. Proceedings

The Board meeting shall be held as and when considered appropriate.

- a) A quorum for the Board meeting shall be two-third of the members. However, there should be at least 1 member stated in d).
- b) The meeting shall be presided over by the chairperson. In his/her absence, thenext senior-most official shall preside the meeting.
- c) All the members shall declare conflict of interest at the start of the meeting.
- d) The resolution of the meeting shall be endorsed by the majority of the members.
- e) Remunerations to the members shall be based on the financial act and regulations.
- f) The MS shall keep an accurate record of the proceedings of all Board meetings.

3. Functions of the Board

The Board must act independently, impartially and in the public interest while performing its functions.

3.1. Board

The Board has the following functions:

- a. to establish competencies for qualifying applicant for registration;
- b. to endorse/approve license for cadastral surveyors;
- c. to investigate licensed surveyors' professional conduct;
- d. to take disciplinary action against licensed surveyors;
- e. to fix fees and charges of services associated with registration and licensing; and
- f. approve supervisor for graduate surveyor.

3.2. Board Secretariat

The cadastral information division (CID) shall serve as the secretariat of the Board and perform the following functions on behalf of the Board:

- a. to register surveying graduates for licensing;
- b. conduct competency (written and practical) assessment;

- c. issue license; and
- d. maintain the register of licensed surveyors.

4. Registration

Any Bhutanese individual with relevant surveying qualification who wants to practice cadastral surveying in Bhutan must be registered with the Board. An individual cannot carry out the cadastral surveying until the registration is endorsed by the Board.

4.1. Qualification

The applicant shall meet the following two prerequisites while applying for Licensing:

- a. hold a minimum of diploma in surveying or any equivalent qualification approved by the Board; and
- b. have completed six months of professional training under the supervision of a licensed surveyor.

4.2. Registration Procedure

This section describes the requirements and processes for registration, licensing and license renewal.

4.2.1. Registration as a surveying graduate

Every applicant seeking to register as a licensed cadastral surveyor must first be registered as a surveying graduate and complete 6 months professional training/internship under a supervisor who is a licensed surveyor. The applicant shall complete Form-1 and attach to it the relevant academic qualifications and submit it to the Member Secretary, Cadastral Surveyors Licensing Board of Bhutan.

The registered surveying graduate upon registration shall submit a written application to the Board seeking approval/endorsement for his/her selected supervisor. The Board retains the discretion to approve/disapprove the application a supervising person.

4.2.2. Registration for assessment and licensing

- a) The applicants upon completing the professional training/internship may apply for the formal assessment and licensing using the Form-2.

The application must be submitted to the Member Secretary in hardcopy or through a designated online system. The application must include:

- an attested academic certificate;
- professional training completion letter from the supervisor;
- security clearance; and
- prescribed application fee.

- b) The Board shall consider the application biannually (June and December), fix the date for competency assessment and notify the applicant.
- c) The Board Secretariat shall assess the applicant as per the competency framework. The competency assessment should include written, practical, oral or any other means deemed appropriate by the Board. The outcome of the assessment shall be submitted to the Board for approval and the applicant shall be informed about the assessment result.
- d) The Board shall approve and register the applicant as the licensed surveyor only if the applicant achieves average threshold of 50% in competency assessment.

The Board Secretariat shall issue the license to practice cadastral survey to the licensed surveyor on approval by the Board, and payment of registration fee by the licensed surveyor.

4.3. Registration renewal

The registration shall be renewed every three years. The application for renewal of license shall not be made earlier than 1 month before the license's expiry date. Registration will automatically expire with the expiry date unless renewal application has been submitted, in which case the registration continues until the application is decided. Failing to renew license within three-months after the expiry shall be restored following the process for the initial registration. The following procedure shall be followed for renewal of license:

- i. The application (Form-3) must be submitted to the Member Secretary, one-month before the date of expiry along with prescribed renewal fee. The late payment fee shall be levied after the expiry date.
- ii. The renewal application must include evidences- minimum of 3 cadastral datasets of the applicant approved by the NLCS in preceding three years.
- iii. The Board shall approve renewal of the registration on satisfaction with evidence submitted by the applicant, and the license shall be reissued on payment of registration fee.

5. Competency Framework

The competency framework shall be the standards for assessing competencies of aspiring cadastral surveyors for licensing. The competency framework describes the units, elements and descriptors that are required to be met for endorsement as a licensed cadastral surveyor, and describes the performance that the applicant is required to display. The Board shall review and amend the competency framework as and when deemed appropriate and necessary.

Unit 1: Surveying Theories		Weightage (20%)
Element	Descriptors	Notes
Fundamental surveying	Applicant will need to demonstrate that they are able to: <ul style="list-style-type: none"> • understand and apply principles of surveying appropriate to cadastral surveying. • apply suitable measurement methods and techniques. • explain functions and limitations of different equipment used in cadastral surveying. 	
Unit 2: Legal framework		Weightage (30%)
Relevant law and regulations	Applicant will need to demonstrate that they are able to: <ul style="list-style-type: none"> • understand and operate in accordance with the act, regulations, manual and guidelines. • explain the land tenure system in Bhutan. • understand administrative procedures and requirements relating to land tenure. • understand different land types/precincts and prohibited activities 	Act and regulations: land act and regulations 2007, property transfer tax act, land lease rules and regulations and other related acts and rules. Manual- cadastral survey, cadastral survey audit. Guideline-realignment, LAP Validation, strata transaction, RTK surveying.
Unit 3: Technical framework		Weightage (50%)
a) Surveying instruments	Applicant will need to demonstrate that they are able to: <ul style="list-style-type: none"> • use both total station and GNSS equipment and keep abreast on the state-of-the-art technology. 	
b) Basic geodesy knowledge.	Applicant will need to demonstrate that they are able to: <ul style="list-style-type: none"> • explain the coordinate system used in Bhutan. • Explain and use appropriate geodetic datum. • establish control points for cadastral purposes. 	

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<p>c) Cadastral Surveying.</p>	<p>Applicant will need to demonstrate that they are able to:</p> <ul style="list-style-type: none"> • use e-sakor or any depositories to collate thram and map data. • mark cadastral boundary complying with standard. • record and document measurement accurately. • use adequate redundant measurement to validate data. • ensure survey measurement comply with standard. • demonstrate the use of various data processing software and proper data management. 	
<p>d) Processing and managing cadastral data.</p>	<p>Applicant will need to demonstrate that they are able to:</p> <ul style="list-style-type: none"> • use various software adopted for processing cadastral data. • reduce, analyze and adjust data. • Identify errors in data, and eliminate it. • determine accuracy and limitation of data. • present spatial data correctly and unambiguously. • Save or transfer files between various formats. • prepare the cadastral map that is fit for purpose. • prepare a logical and coherent report. • apply appropriate quality assurance. 	
<p>e) Basic GIS analysis</p>	<p>Applicant will need to demonstrate that they are able to:</p> <ul style="list-style-type: none"> • Manage data and perform basic analysis in GIS. 	

6. Code of Ethics & Professional Conduct

To ensure confidence of the public in surveying profession and cadastral services, the licensed cadastral surveyors must adhere to the following professional and ethical obligations.

6.1. Ethics & General conduct of a Licensed Surveyor

The Licensed Surveyor must:

- a) uphold the standards, honor and dignity of the profession;
- b) not participate in any illegal activity such that the profession is brought into disrepute;
- c) exercise their responsibilities and duties with the highest standards of honesty, integrity and courtesy towards all with whom they deal in their professional capacity;
- d) endeavor to keep their professional knowledge and skills current;
- e) ensure their professional practice complies with the land act, Land Rules and Regulations, other applicable relevant acts, regulations, directives, standards and guide- lines;
- f) perform their responsibilities and duties impartially, without fear nor favor;
- g) must take the most appropriate steps to rectify, within a reasonable lapse of time, any error or omission he might have made while rendering a professional service.
- h) not undertake professional responsibilities and duties beyond their competence or authority;
- i) serve the client or employer with integrity and diligence, and to the best of their knowledge and ability;
- j) assume professional responsibilities for all works carried out under their control and direction;
- k) not claim the work of another person, body or authority as their own;
- l) not reveal or use any confidential facts, data or information obtained in the course of professional practice to derive a personal pecuniary or non-pecuniary benefit without the written permission of concerned individual, or authority;
- m) not act to undermine the reputation or business prospects of other surveyors by unfair, dishonest or derogatory conduct; and
- n) fully cooperate with any request for information or directives from the Board.

6.2. Conduct towards Clients

When dealing with clients, the Licensed Surveyor must:

- a) be polite, courteous and professional at all times;
- b) so far as reasonably practicable, and before undertaking Surveying Services, ensure the client has been fully informed of the implication of the professional services required, and in particular; the duration, volume of work and approximate cost of the Surveying Services;
- c) immediately advise the client and their employer (where relevant) upon becoming aware of any actual or perceived conflict of interest that may impact the LS ability to undertake the Surveying Services;
- d) endeavor to return phone calls and other correspondence in a timely manner;
- e) only access properties at reasonable times, and as agreed with the client or other persons for the purposes of carrying out work in connection with Surveying Services;
- f) not reveal or use confidential facts, data or information obtained in the course of professional practice, for their benefit, or the benefit of another, other than the client, without the client's permission, or as required by law;
- g) must endeavor to have full knowledge of the facts before expressing an opinion or giving advice to the clients;
- h) not make false charges for professional services rendered; and
- i) must charge and accept fair and reasonable fees.

6.3. Conduct of a Supervisor

In supervising a registered surveying graduate, a supervisor:

- a) must exercise a standard of Supervision that will ensure the Surveying Services have been carried out in accordance with accepted standards of surveying practice, exercising reasonable care and skill, and complying with all relevant legislation, directions and guidelines;
- b) must take all reasonable steps to ensure that any Supervised Person who carries out delegated or subcontracted Surveying Services preserves the confidentiality of the information obtained through undertaking those Surveying Services;
- c) must not allow a Supervised Person to undertake professional responsibilities and duties beyond their competence and/or authority; and

- d) will be held responsible for the quality and accuracy of all Surveying Services carried out by a Supervised Person under their Supervision.

7. Complaints, Investigations and Discipline

A breach of the Code may constitute unprofessional conduct, which may be investigated by the Board. The following procedures will be followed by the Board in dealing with complaints against licensed surveyors;

7.1. Format for Complaint

7.1.1. Verbal Complaint

Where a verbal complaint is received, the Member Secretary of the Board shall assess the complaint and take no action if there are no substantiated grounds; otherwise following two actions shall be taken:

- If the complaint is a minor breach of conduct, the MS in the first instance, verbally attempts to conciliate between the complainant and the licensed surveyor who is the subject of the complaint. The MS shall also advise that if the complainant so desires, an official complaint can be made in writing to the Board.
- If the complaint corresponds to be a major breach of the code, the complainant shall be advised to submit the complaint in writing to the Board.

7.1.2. Written Complaint

For complaints received in writing, the matter of the complaint shall be included on agenda of the next meeting of the Board. On receiving a written complaint, the MS will formally acknowledge receipt of the complaint in writing within 10 working days and a notice of the complaint will be sent to the licensed surveyor within 10 working days of receiving the complaint.

7.2. Investigation

- e) The Board has the discretion to refuse to investigate a complaint if the Board determines the complaint is frivolous, misconceived or lacking in substance.
- f) Sub-committee of the Board shall be formed to carry out preliminary investigation of cases that require investigation by the Board. The sub-committee shall conduct the preliminary investigation and present the findings to the Board within 30 days of receiving the instruction.

7.3. Discipline

The Board will assess the findings of the sub-committee and take any of the following actions:

- a) If the Board finds that no breach of code of conduct has occurred, the Board should attempt to bring all parties together and resolve the conflict by mutual agreement.
- b) If the Board is satisfied that proper cause exists for disciplinary action against the licensed surveyor or the surveying firm, it may exercise any one or more of the following powers:
 - I. Issue a reprimand on the first instance of minor non-conformance/minor breach of conduct.
 - II. Impose a fine and issue a final warning on a second instance of breach of minor non-conformance/ minor breach of conduct.
 - III. Issue a reprimand and ask for correction in case of major non-conformance/ major breach of conduct.
 - IV. suspend the license for 6 months if found to commit repeated non-conformance/ breach of conduct.
 - V. Cancel the license either permanently or for a specified period until conditions have been met or until a further order if found to be involved in unethical practice or convicted.

8. Miscellaneous

- 8.1. The licensed surveyor who is not practicing must inform the Board. Accordingly, the Board shall mark him/her as non-practicing in the register. The registration renewal in such case shall be considered only if the applicant provides to the Board a description of the means by which they have maintained their knowledge and skill of cadastral surveying.
- 8.2. The licensed surveyor shall communicate in writing to the Board if he/she wants to cancel the license voluntarily.
- 8.3. The person whose license has been cancelled shall apply for the license following procedure for new registration. However, the Board may not consider the registration for serious professional violations or if convicted by the Court of Law.
- 8.4. The licensed surveyor shall practice as an employee of the cadastral organization or registered surveying firm, and he/she shall be subjected to Cadastral Audit by the Licensing Board Secretariat.

9. Reference(s)

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