



STANDARDS FOR PROFESSIONAL KNOWLEDGES OF SURVEYORS IN SUBSAHARAN AFRICA Final Version

Preamble

The Federation of Francophones Surveyors (FGF) includes the following countries:

Algeria - Belgium - Benin - Burkina Faso - Cameroon - Canada - Congo (Democratic Republic) - Côte d'Ivoire - Gabon - France - Haiti - Lebanon - Madagascar - Mali - Morocco - Niger - Senegal - Switzerland - Czech Republic - Togo.

Contacts are also ongoing with the CAR, Chad, Congo, Burundi, Tunisia.

The FGF has organized in partnership with UN HABITAT, 14 and 15 of October 15, 2010, in Niamey, a seminar to assess the training needs of sub-Saharan African surveyors to whom have been associated, in addition to member countries, CAR, Chad and the two English-speaking countries of the sub-region, Ghana and Nigeria.

Considering in particular:

- The role of surveyor in society is too important to accept that the profession be exercised by those with insufficient skill levels
- The exercise of the profession requires a high level of technical and legal trainings both initial and in-service
- The disparity existing in the sub-region with regards to the contents of training
- The need to take into account new land strategies and policies, technological and legal developments, as well as customary law
- The need to fight against trafficking in fake diplomas and illegal practice whose effects can be disastrous for the population, by the lack of guarantee provided by property titles and by the occupation titles they generate
- Efforts that must be done to better integrate women in the profession

Several proposals were made, one of which was to suggest to governments the harmonization of conditions of access to the profession, including a minimum level of training, so that the free movement of professionals does not open the door to a poor quality work which would be implemented by people with insufficient training.

This harmonization necessarily requires the establishment of a training reference for



surveyors, common foundation for all countries in Sub-Saharan Africa, which has to leave open options to adapt according to the different existing curriculum (Technicians, engineers ...).

A working group was therefore established, chaired by François Mazuyer, President of the FGF and driven by BAH Roch, President of the Order of licensed surveyors in Benin. It consists of Surveyors and specialized teachers whose list is as follows:

Benin	Roch Abdon BAH
Burkina Faso	President in office of the Order
Côte d'Ivoire	Emile Kokoh ADJOMANY
Gabon	Christian MOUANDJOUDY
Mali	Sidi Moctar SANGARE
Niger	Sany LOUTOU
Senegal	Mamadou NDIR

Based on the French referential at their disposal, members of the working group have had the task of adapting this model to the particular features of the sub region.

Three meetings have been scheduled: during the Working Week of the FIG in Marrakech on 17 and 19 May 2011, and by telephone on September 12, 2011.

This document provides the reader with the latest version of the referential.



SKILLS ASSOCIATED WITH THE PROFESSIONAL PRACTICE OF SURVEYORS
IN SUBSAHARAN AFRICA – SUMMARY

1 – LAW

1.1 GENERAL BACKGROUND

- 1101 Rules of law
- 1102 Hierarchy of standards
- 1103 Organization of national judicial and supra national systems in the sub-region
- 1104 Procedures

1.2 CIVIL LAW

- 1201 Science of law: generality and concept
- 1202 Law of persons
- 1203 Law of Evidence
- 1204 Family Law
- 1205 Property Law
- 1206 Easements
- 1207 Contracts
- 1208 Guarantees the obligations
- 1209 Land Registry
- 1210 Matrimonial regimes
- 1211 Law of succession
- 1212 Donations / gifts
- 1213 Preemptions
- 1214 Liability

1.3 PUBLIC AND PRIVATE LAND LEGISLATION

- 1301 Expropriation
- 1302 Registration
- 1303 Customary law
- 1304 Administrative acts

1.4 PLANNING LAW

- 1401 Land law
- 1402 Operational planning
- 1403 Land Intervention



1404 Development procedures

1.5 ENVIRONMENTAL LAW

1501 Environmental Law

1502 The professional impact

1503 Transverse procedures

1504 Forestry

1.6 RURAL LAW

1601 The rural law

1602 The development and equipment of rural areas

1603 The farm

1604 The rural professional organizations

1605 Production and market

1.7 LEGAL EXPERTISE

1701 Civil and administrative courts

1702 The expert's role and responsibility

2 - SPECIFIC LAWS FOR SURVEYORS

2.1 DEMARCATION

2101 – General considerations

2102 - Legal nature of the demarcation action

2103 - Property for which demarcation can/should be requested

2104 - Actors of the demarcation action

2105 - Amicable demarcation

2106 - Judiciary demarcation

2107 - Demarcation effects

2108 - Case law on demarcation

2109 - Comparative study of the procedures in different countries of the Sub-Region

2.2 THE PUBLIC DOMAIN

2201 - The private domain of public entities

2202 - The public domain

2203 - The demarcation of natural public domain

2204 - The demarcation of artificial public domain

2205 - Case law

2.3 THE CADASTRE



- 2301 - The Cadastre History
- 2302 - The cadastral documentation
- 2303 - Its duties, with regards to land and taxation
- 2304 – Land division
- 2305 - The land registry and land book
- 2306 - Cadastre and Rural Development
- 2307 - International cadastral systems
- 2308 - Land reform

3 - MEASUREMENT SCIENCES AND GEOMATICS

3.1 TOPOGRAPHY

- 3101 - Measurement of lengths, angles and height differences
- 3102 – Establishment of a network
- 3103 – Surveying details
- 3104 - Layouts
- 3105 - General calculations
- 3106 – Network calculations
- 3107 - Divisions of surfaces and volumes
- 3108 - Standards of accuracy and tolerance
- 3109 - Topographical plans and conventions
- 3110 - Drawings and sketches
- 3111 - Special techniques (bathymetry, underground topography, metrology, ...)

3.2 THE GEOGRAPHIC INFORMATION SYSTEMS

- 3201 - Geographic data and database
- 3202 - Data modeling and structuring
- 3203 - Geographic Information Systems

3.3 ANALYSIS AND IMAGE PROCESSING

- 3301 - Photogrammetry, laser scanning
- 3302 - Ortho-images
- 3303 - Remote sensing

3.4 GEODESY

- 3401 - Physical Geodesy
- 3402 - Transformation of earthly representations
- 3403 - The reference and coordinate systems
- 3404 – Geodetic techniques

3.5 TRACEABILITY AND SECURITY OF DATA



- 3501 - The quality of data
- 3502 - Data Protection
- 3503 - Storage and data sustainability

4 – TERRITORIAL DEVELOPMENT

4.1 BACKGROUND

- 4101 – Territorial development policies
- 4102 – The different types of development
- 4103 - Development Studies
- 4104 - Public inquiries
- 4105 - Land Valuation

4.2 URBAN PLANNING

- 4201 - Planning documents
- 4202 - Urban planning permits
- 4203 - Environmental and landscape constraints
- 4204 - Taxation and funding of urban planning projects
- 4205 - Operational urban planning

4.3 SPATIAL MANAGEMENT

- 4301 - Rural space and landscapes
- 4302 - Local development
- 4303 - Development, equipment and risk management
- 4304 - Land mastery
- 4305 - Planning documents
- 4306 - Funding for development operations

4.4 ENGINEERING

- 4401 - Contracting
- 4402 - Assistance to project managers
- 4403 - Public and private managements
- 4404 - The project management by delegation
- 4405 – Projects conception
- 4406 – Projects' financial aspects



5 - PROPERTY MANAGEMENT

5.1 KEY PLAYERS IN REAL ESTATE

- 5101 - Notary
- 5102 - Real estate agent
- 5103 - The property manager
- 5104 - The Architect
- 5105 - The real estate merchant
- 5106 - The developer
- 5107 - The contracting authority
- 5108 - The project manager
- 5109 - Utilities
- 5110 - Local authorities
- 5111 - The licensed surveyor

5.2 OWNERS ASSOCIATIONS

- 5201 - Different types
- 5202 – Their functioning

5.3 REAL ESTATE EXPERTISE

- 5301 - Legal Advice
- 5302 - Expertise
- 5303 – Property valuation

5.4 DIVISION OF PROPERTY AND OF ITS RIGHTS

- 5401 - Land divisions
- 5402 - Evaluation of rights attached to land
- 5403 - Condominium
- 5404 - Division into Volumes



**ASSOCIATED SKILLS-SUMMARY
6-BUSINESS ADMINISTRATION**

6.1 SOCIAL LAWS

6101 - LABOR LAWS (NATIONAL AND REGIONAL PROVISIONS)

6102 - LIABILITY OF THE COMPANY, ITS EXECUTIVES AND EMPLOYEES

6.2 PROFESSIONAL PRACTICE

6201 - RULES OF THE PROFESSION: ETHICS, ETC.

6202 - ORGANISATION OF THE PROFESSION AT NATIONAL LEVEL

6203 - ORGANISATION OF THE PROFESSION AT REGIONAL, AFRICAN AND INTERNATIONAL LEVELS

6204 - MODES OF PRACTICE

6205 - COMMERCIAL LAW (OHADA)

6206 - CUSTOMER RELATIONS (QUOTATION, ADVERTISING, ...)

6207 - ARCHIVE REGULATIONS

6208 - REGIONAL FREE MOVEMENT OF PERSONS AND SERVICES

6.3 MANAGEMENT AND ACCOUNTING

6301 - GENERAL ECONOMY

6302 - BUSINESS ECONOMICS

6303 - ANALYTICAL ACCOUNTING

6304 - GENERAL ACCOUNTING

6305 – BUDGETARY ACCOUNTING

6306 - TAXATION



6.4 PROJECT MANAGEMENT

6401 - PRELIMINARY STUDIES

6402 - PROJECT DEVELOPMENT

6403 – PROJECT IMPLEMENTATION

6404 - BALANCE SHEET

6.5 MANAGEMENT

6501 - PRINCIPLES OF MANAGEMENT

6502 – MANAGEMENT TECHNIQUES

6503 - SKILLS MANAGEMENT

6504 - QUALITY MANAGEMENT

6505 - MANAGEMENT OF THE COMPANY'S ENVIRONMENT

ASSOCIATED SKILLS-SUMMARY

7-GENERAL EDUCATION

7.1 LANGUAGES

7101 - ENGLISH

7102 - FRENCH

OBJECTIVES: GENERAL AND TECHNICAL UNDERSTANDING; (oral and written) RESTITUTION OF SYNTHESIS OF DOCUMENTS

7.2 OFFICE TOOLS

7201 - WORD PROCESSING

7202 - SPREADSHEET

7203 - PRESENTATION SOFTWARE

7204 - DATABASE

7205 - INTERNET

OBJECTIVES: CURRENT USE OF BASIC SOFTWARE

7.3 APPLIED COMPUTING

7301 - Computer Graphics (CAD / CAM, ...)

7302 - PROGRAMMING

OBJECTIVES: CURRENT USE OF BASIC SOFTWARE; PROGRAMMING

7.4 APPLIED MATHEMATICS

7401 - ASSESSMENT OF ACCURACY (ERRORS, TOLERANCES...)

7402 - STATISTICS AND PROBABILITY

7403 - GEOMETRIC TRANSFORMATIONS

7404 - CURVES, SURFACES AND VOLUMES



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7405 – SPATIAL REPRESENTATION

OBJECTIVE: LEVEL IV - TYPE S

7.5 APPLIED PHYSICS

7501 - OPTICS

7502 - ELECTROMAGNETIC WAVES

7503 - GEOTECHNICS

7504 - HYDRAULICS

OBJECTIVE: LEVEL IV - TYPE S

7.6 Communication

7601 - SPOKEN AND WRITTEN

7602 - INTERNAL AND EXTERNAL COMMUNICATION

OBJECTIVE: ABILITY TO SPEAK AND WRITE IN ENGLISH AND FRENCH