

Technicians without Borders

Winston Abayomi Ayeni, Nigeria

1. INTRODUCTION

The regulating responsibility of surveying activities was done by the licensing board of the old Federal Surveys Department in the past. In those days because it was a government department it meant those not in the department had a more difficult task of getting “Licensed” as it were. This led to agitations for a Surveyors Board of Nigeria, SURBON. After a long period of over 13 years, the Surveyors Council of Nigeria (SURCON) was established by Decree 44 of 1989. This decree was later converted to become Cap 425 of the Laws of the Federation of Nigeria. The Council is made up of 59 people, made up of the President of the Council, who is appointed by the President of the Federal Republic of Nigeria, 37 Surveyors General of the States, 12 representatives of the Nigerian Institution of Surveyors, 5 representatives of the Federal Government including the Surveyor General of the Federation and 4 representatives of Institutions of higher learning.

1.1 Council Responsibilities & Committee

The Council's responsibilities can be summarized into five:

- i. Determining who are Surveyors
- ii. Determining the standard of Knowledge and skill for persons seeking to become Surveyors
- iii. Establishment and Maintenance of register of persons entitled to practice the profession.
- iv. Regulating and controlling the practice of the profession in all its ramifications
- v. Maintenance of discipline within the profession.

To effectively carry out these functions apart from the Secretariat staff which includes the Registrar, the Council works through 8 committees:

- a. Finance and General Purpose Committees
- b. Survey Laws and Regulations Committees
- c. Disciplinary Committee
- d. Surveyors Investigating Panel
- e. Registration Committee
- f. Education Committee
- g. Examination Committee
- h. Human Capital Development Committee (HCDC)

1.1.1 Finance & General Purpose Committee

This committee is chaired by the President of the Council and is made of all the Chairmen of the Committee and any other person so co-opted. The Committee is

charged with the responsibility of overseeing the finances of the Council and gives approvals on such finance expenditures above the limit of President. It could carry out any other responsibility assigned to it by the Council. The quorum for meeting is five.

1.1.2 Survey Laws and Regulations Committee

This committee is responsible for all Laws and Regulations controlling the practices of surveying. It is this committees that sees to the publications of Specifications for various types of surveys. It is made up of 11 Council members quorum is made up of 4 members.

1.1.3 Disciplinary Committee

This committee is made up of 11 Council members including the President of the Council. In this committee the Enabling Acts states that not less than four shall be members of Council representing the Nigerian Institution of Surveyors (NIS). This committee is charged with the duty of considering and determine any case referred to it by the Surveyors Investigating Panel or any case which the committee has cognizance under the Enabling Act. 6 members would form a quorum at meetings.

1.1.4 Surveyors Investigating Panel

The panel consist of seven members of Council its responsibility as listed in the Enabling Act are:

- a. Conducting preliminary investigations into any case where it is alleged that a person registered has misbehaved in his capacity as a surveyor or should for any other reason be the subject of proceedings before the Disciplinary committee.
- b. To decide whether a case should be referred to the Disciplinary committee
- c. To submit a report or any action taken by the investigating panel to the Disciplinary committee.

The quorum for the investigating panel is 3

1.1.5 The Registration Committee

This committee is made up of 8 members of Council with all sections represented. The quorum of this committee is 4. The responsibility of the committee is to consider all applications for registration and to help organize induction for newly registered surveyors.

1.1.6 Education Committee

This committee is made up to 8 people. It also needs 4 members to make a quorum. This committee is responsible for all educational materials used or sent out by the Council. It is also responsible for accreditation of training institutions. It is also responsible for the interviews conducted on Surveyors to ascertain who is best qualified for the part sponsorship awarded by Council.

1.1.7 Examination Committee

The Committee is made up of 8 members and any 4 would form a quorum. This committee is responsible for conducting examinations for the various cadres within the surveying profession. The results from the examinations from this committee are presented to Council for ratification.

1.1.8 Human Capital Development Committee

The Human Capital Development committee is made up of 7 members. The responsibilities of the committee is to see to the manpower needs of the Secretariat. All senior level staff promotion and recruitment is articulated for Council by this committee. Quorum is formed by any 4 members.

2. NIGERIAN SURVEYING EDUCATION SYSTEM

There are two types of institutions in Nigeria where surveying is taught. There are Universities and Polytechnics. The Universities are of two types:-

- a. Standard Universities
- b. Universities of Technology

2.1 Standard Universities

These are Universities that run all programmes including engineering, Science, Technology and Humanities degree programmes. There are six of such universities. The curriculum in these universities are relatively independent. The National University Commission does not enforce any standard but the University Commission and the Accreditation committee of SURCON. As at 2010 December, two Universities lost their accreditation for Surveying programmes, these being Ahmadu Bello University, Zaria and the University of Uyo, Uyo. The Universities accreditation by SURCON got partial accreditation indicating that there are certain anomalies that should be addressed before the next visitation which would be in two years time from the date of the last visit. See appendix A for the listing of Universities and their status. These Universities offer Bachelors of Science on completion of five years programmes. At the end of which the graduands can be enrolled by SURCON as Pupil Surveyors.

2.2 Universities of Technology

These groups of Universities which were set up to specifically produce technocrats that are to manage industries. Four universities in this group run surveying programmes. Just as the standard universities they also run a five year programme at the end of which a Bachelor of Technology (B. Tech.) is offered. One of these four university lost its accreditation from the University commission that being Rivers State University of Science and Technology, (RSUST) Port Harcourt. The University of Technology, Akure is the newest programme in the nation, they are yet to be visited by SURCON. Of the other two only one is accredited to run post-graduate programme, that being the University of Technology, Yola.

2.3 Polytechnics/Monotechnics

The Polytechnics are set up to produce the middle manpower in the Nigerian environment by the Polytechnic Act. There are 13 Federal Government owned polytechnics, and 9 state own polytechnics. The Nigerian Army have one institution at Makurdi and the Navy has one at Oron. There is also a Federal School of Surveys which was set up initially to provide technicians for the Office of the Surveyor General of the Federation. Today its enjoying the status of a monotechnic, like most of the Polytechnics it runs a National Diploma (ND) programme, HND programme. The products from these two programmes are enrolled by SURCON as Technicians and Technologist respectively. Two institution FSS Oyo & Kaduna Polytechnic amongst the twenty in this group have a Professional Diploma programme which is designed to convert a technologist to a Pupil Surveyors. Institutions in this group do not enjoy the curriculum freedom of the universities. The National Board for Technical Education (NBTE), has a minimum standard curriculum that has to be followed institutions are allowed to add to it but they must have the minimum or risk non accreditation by the Board. Its important to indicate that the accreditation team is now officially a joint team between NBTE and SURCON. A total of **19** institutions have been visited. See Appendix B for status of Polytechnics.

In addition to the Polytechnics there is one special United Nations Regional Centre at Ile-Ife called The Regional Centre for Training in Aerospace Surveys (RECTAS).

This centre is one of the two centres set up in Africa. Its mandate is to train, not only for Nigeria but the whole of the West African Nations, technicians and Managers in Surveying and Geoinformation. The academic program is modeled after the International Centre ITC at Netherland. They have over 12 programmes, see appendix c for details of the programmes in RECTAS.

3. SURCON CAPACITY BUILDING ACTIVITIES

In the Nigerian environment, SURCON noticed that there is a need to build capacity. The ever changing tools of the profession meant that there is a need to improve the capacity of all in the profession. From the States Surveyor Generals, the Practitioners, Lecturers and Student.

3.1 Capacity Building of Surveyor-Generals & Practitioners

There are 36 Surveyor Generals, one per State and a Director of Surveys for the Federal Capital Territory, Abuja. Present in Abuja also is the Office of the Surveyor General of the Federation, OSGoF, of these 38 Offices only 8 offices have being given the extra ministerial status, this includes the OSGoF. This status means the office is now similar to the Office of the Accountant General and Solicitor General of the Federation. The practitioners employed by the Federal Government in State Ministries are all now under the OSGoF.

They can be posted to any other office by the Surveyor General of the Federation, SGoF. Prior to this change in status, the Surveyor General's office was just a department in the

Ministry of Works. This not only limited the funding but also their capacity. Being a department only, they were not considered relevant to other ministries where Geo-spatial information was needed. The effect of this limitation was duplication of efforts and wastage of resources. There was also serious stagnation in promotions within the department and morale and output was very low. The situations in the States were no better. The Surveyors General were considered to be relevant only for Cadastral purposes. Due to this position in most States and since government was the main client of Surveyors, most often they did only Cadastral Surveys.

In some rare occasions, some Topographic Mapping was done intermittently. SURCON on noticing this trend, organized three retreats. The first was held in Enugu in December 2009 to address the position of the Council as a Regulatory Body, with its responsibilities and the responsibilities of the Office of the Surveyor General of the Federation, were discussed. In attendance were all SURCON Council members, management staff of the Office of the Surveyor General of the Federation and executive members of the Nigerian Institution of Surveyors, NIS. The most important fallout of the Enugu retreat is the birth of the 'Tripod Concepts' agreement amongst the Office of the Surveyor General of the Federation, Nigerian Institution of Surveyors, NIS and Surveyors Council of Nigeria, SURCON to work together for the progress of the profession and the delivery of accurate and essential geo-spatial information and products to all users on time and with accuracies as required.

The second was a one day retreat was held in Abuja December, 2010 to discuss in full the 'Tripod Concepts'. At this retreat the idea of permitting Lecturers and those in paid employment to carryout private job was fully discussed. At the end it was agreed to allow people in paid employment to practice through their consultancy units. At this retreat were Chairmen of State Chapters of Nigerian Institution of Surveyors, NIS, Surveyors General of States, SURCON members and the Directors from the (OSGoF).

Earlier in 2010, a trio made up of the OSGoF, SURCON and a Private Expatriate Company, Sivan organized a two day seminar on GIS in Abuja. This time Permanent Secretaries from the Ministry of Lands and Survey of 36 States, the Surveyor Generals of the States and Head of Departments of training institutions and others that use or could use GIS, like the Police, the Customs and the Army were all invited as were the executives of the National Executive Committee of NIS. Reports were presented by SIVAN and from States like Kwara, Niger, Adamawa and Lagos on the State of their geoinformation use and need.

The conference called for greater co-operation between States and the OSGoF and the need to elevate the State Surveyors General office from departments to extra-ministerial status. Two other conferences were organized to further educate the Surveying Community. The first was aimed to have the Surveyors General and Practitioners understand the objectives of the Presidential Land Reform Committee which are:

- i) To collaborate and provide technical assistance to States and Local Government to undertake Land Cadastral Nationwide.
- ii) To determine individuals “possessory” right and the registration of title holdings.
- iii) To encourage and assist States and Local Governments to establish an arbitration mechanism for land ownership and conflict resolution.
- iv) To make recommendations for the establishment of a National Depository for land title holdings and a mechanism for land valuation in both Urban and Rural areas.
- v) To make other recommendations that will ensure an effective, simplified, sustainable land administration in Nigeria.

The expected responsibilities of Surveyor-Generals were itemized as follows:-

- i) To identify candidates to be trained as trainers of field assistants.
- ii) Identifying candidates to be trained as field assistants.
- iii) Work out logistics for the field operations.
- iv) To liaison between all Stakeholders, PTC, OSGoF, Local and State Government.

The OSGoF and NIS are at the time of going to the press with this paper, organizing workshops in Seven Centres in the Country to further educate Surveyors on AFREF and CORS System which are to be in place. The workshop is mandatory for all members of NIS.

3.2 Capacity Building for Training Institutions

The situation in Institutions were better than with Practitioners as one would expect, however it was noted that while the syllabus used in Polytechnics and Universities were relatively modern there was a scarcity of younger academic staff, shortage of modern digital equipments, recent literature and software. To remedy these situations, SURCON has done the following:

- i) Donated Surveying instruments to all Institutions totaling over 50 million naira since 2009.
- ii) Scholarships have been offered to 6 members of staff of Universities, 2 for PhD programmes and 3 for Masters programmes, all in Nigeria and One Master programme in Germany.
- iii) Workshops have been conducted for trainers on the use of Arc GIS 9.3 software and Engineering Software, Civilcad. Copies of Adjustment Computation Software and Civil Engineering Software have been procured and donated to some institutions. See appendix D for listings.

The Council has a plan to encourage more of the academics to publish locally, books that are expensive to procure and at the same time, it intends to donate Computers and Internet Modems to facilitate e-education in Surveying Institutions.

4. RECOMMENDATION/CONCLUSION

A study of the training institutions in not only Nigeria, but also from the French speaking institutions in the West African community, there is a gradual loss of professors due to age, they are retiring due to the 65years or 35years of service requirement of public servants in the academia. In the Civil Service, the retirement age is 60years or 35years of service. This condition while supposed to be making space available for younger manpower has actually deprived the service of experienced civil servants. The situation in some commonwealth countries are similar by way of retirement.

In view of the above situation and the need of high skilled modern experience manpower in some emerging nations(including Nigeria). It is the opinion of the writer that FIG in collaboration with its member institution create an inventory of such experienced manpower all over the world.

In Nigeria where there are over 20 nations producing technicians that can also be classified as data collectors. Most of these technicians are like the retirees unemployed not so much because there are no jobs where they can be put to work but because even when there is a known need, there is no financial and political will to employ the surveying manpower. Because of the uniqueness of surveying instruments being the same in all nations. A Leica or South Total Station in Nigeria or Africa is the same as that in Europe, Asia or the America's. In addition to the inventory retained manpower, FIG can also create an inventory of available technicians and technologist, with their expertise.

Having gotten this data, FIG would thus be in a position to create and monitor the use of these specialists by nations or in places where FIG would like to render some technical aid. Knowing that FIG has a relationship with UN-Habitat and other international bodies the creation of Survey Technicians without borders similar to Doctors without borders and more recently basketball without borders.

GLOSSARY

AFREF	-	African Reference System
FGF	-	Federation Des Geomatics Francophones
FIG	-	International Federation of Surveyors
NBTE	-	National Board of Technical Education
NIS	-	Nigerian Institution of Surveyors
NUC	-	National University Commission
OSGOF	-	The office of the Surveyor General of the Federation
PTC	-	Presidential Technical Committee on Land Reform
SG	-	Surveyors General
SGOF	-	Surveyor General of the Federation

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