

CHANGES IN SURVEYING PRACTICE IN NIGERIA:

OPPORTUNITIES, RESPONSIBILITIES AND CHALLENGES

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PRESENTATION OUTLINE

- Introduction
- Reasons For Changes In Surveying Practices In Nigeria
- Opportunities for Surveyors
- Challenges For Surveyors
- The Way Forward

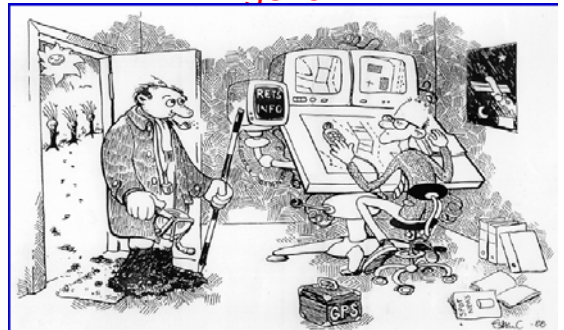
1.0 INTRODUCTION

- The Surveying practice in Nigeria is facing enormous challenges as technology and legislation create new paradigm for employment and career opportunities.
- The Surveying profession in Nigeria is currently facing the biggest challenge in its modern history.
- Developments in technology have had a significant influence on the structure of the surveying and mapping industry

- These situations which have never previously experienced, are beginning to present opportunities and challenges to surveying profession.
- For example, issues central to our profession such as cadastral reform, updating of maps and spatial data infrastructures are grabbing the attention of policy makers as they are beginning to realize the importance of surveying and mapping services in economic development, environmental management and social stability.

- The Surveying practice has been undergoing significant change and the extent, pace, unpredictability and impact of change is projected to increase.
- The Surveying practice in Nigeria is rapidly changing as the skills required in the past give way to new technology; and new opportunities for the provision of added value services is beginning to mount pressure in survey rules and regulations.
- One of the major challenges for the surveying profession in Nigeria is the ability to capitalize upon the change created by GIS, Digital Mapping, Location based services using GPS.

The Genesis of Surveying in Nigeria



2.0 REASONS FOR CHANGES IN SURVEYING PRACTICES IN NIGERIA

- Global Challenges
- Rapid technological change,
- Micro-economic reform,
- Procurement reform,
- GIS and Surveying Reforms
- Privatization,
- Regulation of the professions

2.1 Global Challenges

- The main global drivers for change in the Surveying Industry in Nigeria is the spatial information world which can be identified as surveying and mapping technology development for sustainable development.
- These global drivers therefore also affect the profile of the surveying profession and they challenge the whole educational basis of the profession in Nigeria.

2.2 Technology Development

The GPS technologies for measuring have revolutionized the traditional surveying discipline and the high-resolution satellite imagery tends to revolutionize the mapping discipline.

- The database technologies for storage of large data sets and the GIS technologies for data management, analysis and manipulation arguably have had the greatest impact on the spatial information environment.
- In recent times, the communication technologies such as the WWW and the Internet have become the focus of attention for viewing and using spatial data in Nigeria.

2.3 Micro-Economic Reform

- The micro-economic reform initiatives by the Federal Government of Nigeria represent the institutional and governmental side of the changes observed during the latest one decade.
- These changes includes initiatives such as privatization, decentralization, monetisation, downsizing, cost recovery, performance contracts, quality assurance, value for money, public/private partnership, and other policies to ensure service delivery and cost effectiveness.
- These initiatives have changed the focus from the pure technological issues to include also the more managerial components of building and maintaining national spatial data infrastructures.

2.4 GIS and Surveying Reforms

- The last decade has seen moves towards incorporation of GIS as part of Surveying services as it is done in the surveying community throughout the world.
- GIS and Surveying are beginning to evolve as components of land administration systems in Nigeria.
- GIS Business in Nigeria is gradually becoming big time business. More people are getting interested each day and more ideas are being unveiled as GIS practitioners search for enduring legacies for sustainable wealth creation for Surveying through GIS.

2.5 Capacity Building

- The Capacity Building Challenge is about establishing
 - Sustainable Survey Departments
 - Sustainable Survey and Mapping infrastructures
 - Sustainable human resources and skills

The new paradigm for Capacity Building in surveying and mapping in Nigeria offers a wide range of principles and options such as:

- redefining the current market potential including existing competition
- redetermining available/potential sources of funds for surveying and mapping
- re-examining surveying and mapping specific manpower and equipment needs
- Making surveying departments as core income generation area

3.0 OPPORTUNITIES FOR SURVEYORS IN NIGERIA

- The emergence of current economic environment has focused on the Surveying business on the need for large long-term investment in manpower, equipment and particularly job sourcing in order to exploit the opportunities this current environment offers.
- The face of the Surveying Business has been changing with an ever-increasing acceleration.
- The Surveying business is now quite different from how it started and we have good reason to expect that, within a few short years it will again look quite different from what is now.

- We only have to look at the last few years to see how the that technological and political changes have put a lot of external pressure on Surveying business and it would be naïve to expect this pressure to disappear.
- The Surveying world is not the same place as a decade ago and the Surveying industry in Nigeria is certainly not the industry of even five years ago. We are in a period of flux, of constant movement coupled with rapid technological advances, legislative changes, constantly changing calls on the skills of Surveyors.

Among the opportunities for surveyors include and not limited to the following:

- Mapping with Satellite Imagery
- Provision of Controls with Total Station
- Global Satellite Positioning
- Global Navigation Satellite System

4.0 CHALLENGES FOR SURVEYORS

In spite of the several years of Surveying and Mapping activities in Nigeria, the surveying industry which should have been the bedrock for sound planning and development have regrettably not been able to respond well to users demands:

- due to inadequate funding of the sector by the Government
- Inadequate trained personnel in modern mapping techniques,
- dearth of modern instrumentation and
- lack of sectoral motivation.

- The challenges of the so-called information age will be to integrate modern surveying technology into a broader process of problem solving and decision-making.
- Nigerian Surveyors are yet to assess fully what range of skills will be required of those entering, and continuing within, the modern occupational world of surveying.
- There is no doubt that the main challenge of the future will be that the only constant is change. To deal with this constant change the educational base must be flexible.
- The graduates must be adaptable to a rapidly changing labour market.

Therefore, the challenges can be summarized as:

- Actualisation of MDGs
- Proliferation of Remote Sensing Images
- Educational Challenges
- Enhancing Professional Competence
- Institutional Challenges
- Funding

The Way Forward

Implementation of Vision 2010 for Surveying and Mapping in Nigeria

- The goal of VISION 2010 is to chart an economic, social and technological program that would put Nigeria on the path of sustainable development for the benefit of the citizens of the country.

- In order to move forward, Surveyors in Nigeria must avail themselves of the opportunity and challenges presented by modern mapping technology to speedily locate, take stock, study and explore her land and marine resources for their orderly management.
- Make available Surveying and Mapping products needed by the other sectors of the economy.
- The effective use and application of Surveying and Mapping products to our national development will assure among others:

- All these pose significant challenges to Surveyors.
- Some of these challenges are due to evolution of technology and some are due to institutional changes as a consequence of political and economical development in individual countries.
- Developments in technology and institutional frameworks may provide new opportunities for the surveying profession, but they will also be the destroyers of some professional work.

5.0 CONCLUSION

- Over the last few years, the pace of changes in the Surveying and Mapping industry has accelerated.
- These changes are being driven by a number of forces, the most important of these is the promotion of spatial data infrastructure as a basic component for good governance.
- This is leading to a demand for geographical information and geographically enabled applications from very rapidly growing markets and sectors.

- Under the auspices of the Millennium Development Goals, a basic geographic data set or “framework” needs to be produced.
- The framework will be a consistent set of digital geospatial data and supporting services that will satisfy the needs of users to maintain and manage the variety of common information being collected by the public and private sector.

- Therefore, the Office of the Surveyor-General should ensure that the surveyors’ professional skills are used to promote environmentally sound planning and management of natural resources and human settlements as defined in Millennium Development Goals.
- Surveyors are challenged to contribute to the planning and management of urban, rural and marine development in order to avoid potential disasters of the gravest scale and to preserve and improve the quality of life for present and future generations.
- The expertise of surveyors is essential in the actualisation of MDGs for example monitoring environmental changes, in management of resources, in planning and construction.

- Surveyors can only achieve these through continuing advances in modern surveying and mapping technology, such as remote sensing and geographic information systems, which can significantly increase the information available to decision makers and society in general.
- New technologies in the field of positioning and navigation such as GNSS will help to in disaster management.
- The Office of the Surveyor-General should figure prominently in the implementation of MDGs. This is because surveyor has an ethical duty to advise and inform the Federal Government of Nigeria in relevance of Surveying and Mapping to MDGs.

THANK YOU VERY
MUCH FOR LISTENING

