

Women in Cadastral Surveying – Its Challenges and Prospects in Ghana

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Key words: Cadastral Surveying, Profession, Careers Education, Geomatic Engineering

• SUMMARY

Women now make up 30% of the working population in Ghana, despite this growth, the number of women working in the surveying profession remains consistently low, estimated at 5%.

So, what is preventing the surveying profession in mimicking the law and medical professions in increasing the participation of women? Is it the lack of awareness of the profession in Schools, Colleges, and Careers Education? Is it a traditional perception of a gender-biased profession? Is it the lack of role models for young women? Or is it plain discrimination? If it is one or more of these, then what action should be taken to address the barriers? The paper describes the results of two studies exploring barriers to female entry to the surveying profession and progress made in the profession by women in Ghana, surveying practitioners, male and female, at varying stages of their career. The studies undertaken by female surveying students found that barriers exist at different points in surveying - at entry and employment, and that some of those barriers are being addressed by the profession in different ways. At the entry point to surveying there is still a lack of awareness of the profession as a career for girls and women. This can be addressed by greater liaison between schools and surveyors in the profession and by increased information and awareness of career advisers. Within the profession there are still barriers for women surveyors to overcome, including work-life balance issues, physical demand of the profession and traditional attitudes of some male surveyors. There are, however, signs of positive change within several surveying disciplines.

Over the years, there has been a consistent increase in the number of women studying Geomatic Engineering in some of the universities and other institutions in Ghana. However, very few of these women have practised this field of study after graduating. While just a handful of female graduates now work in surveying and mapping firms, many are using their surveying education as a springboard to branch into other jobs.

Despite all these challenges, few women are determined to make an impact on the female engineering society and the world at large. With the advent of modernised technology, surveying has become less robust and hence women would not always need physical strength to be in the profession. The surveying profession holds unlimited opportunities for women, so society has a role to play in encouraging female surveyors to higher heights.

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• INTRODUCTION

Surveying generally has always been seen and perceived by many as an exclusive preserve for men from time. Because males predominated in this field, surveying is more commonly thought of as a man's profession in Ghana. The African cultural beliefs contributed to the historical neglect of African women by suggesting that women were not to be involve in professions such as surveying, architecture, engineering etc in historical periods. Similar presumptions about women's inferiority, oppression, and subordination in African cultures exist (Gadekpo, 2005). A woman is considered manly because of her sense of assertiveness and desire for freedom (Dei, 2004). Few women who challenged the status quo to study surveying are unwilling to practice the profession due to factors such as the physical demand of the profession, inferiority complex and the danger of attacks. Very few women can muddle through the tedious routine of land survey. The idea of climbing hills and being in the bush, etc is dispiriting to most women. Also, difficulty in combining life as a surveyor with keeping the home (Domestic activities) deters a lot of Ghanaian women from pursuing the profession further.

Additionally, most clients question a female surveyor's competence, and these women have struggled to be recognised as highly competent workers.

In Ghana, there have been several instances of "land guard" assaults on land surveyors on-site, in addition to the previously mentioned factors, which discourages most women from becoming surveyors. There are ladies who are successful and prominent in every aspect in the field of surveying (Etuonovbe, 2020). In this modern era, the women in surveying made the decision to shed their background togas and take an active role in the affairs of the Ghana Institution of Surveyors (GhIS), in the field, and the nation. Considering the active involvement of women, and to maintain the above pace, women in Ghana have formed an umbrella association to champion their cause. It is named "Women – In – Surveying". The mission is to promote the practice of surveying by women to form at least 40% of the total membership of the Ghana Institution of Surveyors and actively participate in all GhIS Programmes (GhIS-WinS, 2017). Until recently, female surveyors made up only about 2% of the Ghana Institution of Surveyors' total membership, and they were hardly ever seen taking part in the Institution's activities. The proportion of women has grown from 2% to about 15% since the creation of Women - In - Surveying. The Women - In - Surveying still have a lot of work to do to realise their goal, so this number is still not encouraging.

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• **Women - In - Surveying (WINS) Ghana**

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The Ghana Institution of Surveyors is made up of three Divisions namely Land Surveying, Quantity Surveying and Valuation & Estate Surveying. Women - In - Surveying (WinS) Ghana, a subgroup of the Ghana Institution of Surveyors (GHIS), was formally inaugurated in

2017 and comprise all women from the three divisions to speak out on issues that concern them as a group and to promote the education of Ghanaian adolescents, in particular the "Girl Child," with the aim of motivating and assisting them to select surveying as a tertiary course of study.. WinS is a dynamic group made up of smart, daring, and brave women who have a clear vision for the future and the survival of our specialised field.

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- **Objectives**
 - To promote the practice of surveying by women.
 - To create and advance the opportunities for women in the Surveying profession.
 - To equip women for wider responsibilities in the profession.
 - To showcase women Surveyors as role models.
 - To open avenues for women to share ideas and to get to know each other.
 - To create a forum for the discussion of all matters relating to women in the Surveying Profession
 - To structure a mentoring scheme to encourage the participation of young women in programmes of the Surveying Profession
 - To organize activities like social work, fun events, study trips, family days, etc



Figure 1. Induction of the leadership of WinS into office for a two year term during 2022 AGM.

- **Membership**

The membership of WINS shall be open to all women in any of the categories of membership in all Divisions of the Ghana Institution of Surveyors. The activities of WinS include Women's Conference and Annual General Meeting, study trips, fun events, family days, etc. From observation, implementation of WinS has brought about women in surveying into the limelight of the profession. Also, the ratio of women in the profession is being recognised and women professional skills are being respected.



Figure 2. Counting from the left Members of WinS during the 2022 and 2023 AGM of the Ghana Institution of Surveyors

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- **Women in Cadastral Surveying**
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a) What is cadastral surveying? Cadastral surveying is the sub-field of cadastre and surveying that specialises in the establishment of real property boundaries. It involves the physical delineation of property boundaries determination of dimensions, areas and certain rights associated with properties.

b) Registration of Lands: it is any various systems by which matters concerning ownership, position or other rights in land are formally recorded to provide evidence of title, facilitates transactions and prevent unlawful disposal (Parliament, 1986).

Steps taken in registering a land.

- Stamped (stamp duty duly paid)
- Date of instrument
- Nature of instrument (Title of document)
- Names and addresses of witnesses.
- Signature of parties
- Names of witnesses
- Signature of witnesses

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FIG Working Week 2023
Protecting Our World, Conquering New Frontiers
Orlando, Florida, USA, 28 May–1 June 2023

- Solicitors stamp/seal.

Interestingly we cannot discuss or talk about land registration without knowing a little about land tenure and administration systems in Ghana. Land tenure can be defined as right or the manner of holding interest in land. Land tenure has to do with land, men, and rights. There is man-thing relation and man-man relation(right). The tenure describes the terms and condition under which interest in land is held. It also describes the rights responsibilities and restrictions that attach to the land user regarding to the possession and use of land. In many countries the form of or kind of land tenure is influenced by the kind of traditions or families.

In western societies the mode of holding interest in land is individual based. However, in many parts of developing countries, customary or group-based tenure system is still the basis of ownership.

Unfortunately, in our part of the world it is the men who are seen as custodian of land properties (kings and chiefs) and only entitled for its registration and endorsement.

Women are side-lined, but the situation is gradually changing because of education and professionalism in the surveying profession. Educated women (Queen mothers) are also now custodian of lands or are among the recognise signatories.

- **Merits and Demerits of Traditional and Modern: women in cadastral surveying.**

Traditional methods are used for making linear measurements of an area or building or for levelling. These conventional surveying methods usually comprise of digital aided manual measurements. These techniques produce analogue results and involve more manual input.

- Theodolites
- 'Dumpy Level'
- Measuring Wheel
- Tape Measure

Modern surveying methods often incorporate some form of digital device and GPS systems to allow us to calculate a range of measurements including angles, levels, and distances. Tools such as Drones can also be used to reach otherwise inaccessible areas and provide a viewpoint which we would not be able to survey using traditional methods.

These include.

- Total Stations
- Laser Scanners
- GPS Equipment
- Drones (UAVs).

The physical demand involved in traditional methods of women in cadastral surveying profession are muddle through the tedious routine of land survey. The idea of climbing hills and being in the bush, etc is dispiriting to most women.

Added to these, Traditional methods of surveying often use manual equipment which can be cumbersome and slow to use and record the results for women.

Women in cadastral surveying with modern methods have made women more involving, attractive, and interesting in the profession. This has been the introduction of science and technology. For example, modern technology has brought about accuracy and precision, information gathering and speed.



Figure 3. A day in the life of Women in Cadastral Surveying

- **Challenges:**

Women generally face a lot of obstacles by virtue of their gender and cultural background. They are made to believe that they are inferior to men and of a weaker sex who must be dependable on men especially in the African setting and in Ghana in particular, where while growing up you are made to respect the male child as he could be the head of the family tomorrow even if he is younger to you the female. This notion has conditioned the thinking of the women in Africa and the female surveyor in Ghana is not at all an exception.

Some women use to chicken out, thinking that they cannot not be employed or be on their own as female, well they cannot be blamed for having such thoughts because that was the way of thinking of most the Ghanaian men then. This made many female surveying graduates to abandon the profession for jobs like teaching and the banking industry. This is gradually changing now.

It was difficult for some women to balance family responsibilities and their professional life and so it was difficult for them to participate in professional organizations. Due to the peculiar nature of women and their duty as wives, some female surveyors find it difficult to balance family responsibility with their professional life. Both tasks are very demanding, it takes only an enlightened and understanding husband who is not a chauvinist to help the woman to make this balance. The Ghanaian woman is always seen to be at the beck and call of the man. An average Ghanaian man thinks that the best profession for a woman is a teaching job where the woman returns early from work to take care of the children and household chores; anything outside this is readily not acceptable. Some men feel threatened when the woman becomes wealthier than they are, and so will not allow their wives to practice the profession of their field of study. Only the educated, enlightened and understanding husbands will allow this. Most of the female surveyors who are active in the affairs of the profession today have the support of their husbands and so are doing very well.

At the early stages some women were afraid of taking the PROFESSIONAL Surveyors registration exams organised by Ghana institutions of surveyors to attain membership; after which they are enabled to become licensed Surveyors (LISAG). The reason they proffered then was that it was not possible for them to be CEOs of Surveying firm so there was no need for registration, and this again was a hurdle we needed to cross. The few who eventually became registered were afraid to venture into private practice, as they were afraid, they will not be able to compete with their male counterparts. Today the story is different.

- **Recommendation**

It was observed this research that, when it comes to professional carrier in Ghana, women are mostly side-lined for many reasons especially for who they are. Due to this technically they not seen much in the survey profession but currently the idea of being a woman is being swept under the carpet and with the government introducing (TVET) Technical and Vocational and Education Training and (STEM) Science Technical Engineering and Mathematics Strand, women have taken the place and now working hard.

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• **BIOGRAPHICAL NOTES**

Basirata Abudu-Akindali has MSc Geo Information Science (GIS) from University of Ghana. She has BSc in Geomatics in Kaff affiliated to Kwame Nkrumah University of Science and Technology (Ghana). She has a Higher National Diploma (HND) in surveying and mapping from the Ghana School of Surveying and Mapping. She works as an Assist Geomatic Engineer at Survey and Mapping Division of Lands Commission. As part of her duties, she examines cadastral documents submitted for approval and certification. She is a professional member of the Ghana Institution of Surveyors and a member of Women in Surveying.

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