

# **Digital Surveying - The GNS Solution to Boundary Surveying and Land Registration Issues in Ghana**

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## **SUMMARY**

In Ghana, There are so many land disputes in the country but when each is studied critically it will be realized that it eventually goes down to the boundaries between the major land-owning groups. The history of the original acquisition of land has not been well documented. They are passed on by generations through oral transmission. The transmission of information is highly dependent on the human factor. Since memory fades and people die vital information such as the boundaries of the land was lost because there wasn't a way to determine the exact line that shows where the land begins and ends. They used relief features such as trees, water bodies, and other natural land features as indicators showing the boundaries of a piece of land. Since water bodies such as rivers can dry up and trees can be cut down, determining where the land boundaries are, is becoming difficult because the indicators that were used to show the boundaries are no more and the people who could determine the land stretch are also no more. Also, some boundaries were shown through paper sketches but since there wasn't any grid system, sketches did not show the actual ground boundaries.

This paper looks at a future where the boundary surveying and land Registration system of Ghana will have no problem showing the exact boundaries of a piece of land and help reduce, if not completely eradicate land disputes in Ghana with the introduction and use of the GNSS Digital Mapping (Using the Geogenic Technology and Continuously Operating Reference Station (CORS) Network) to create a digital cloud-based database which gives real-time ground coordinates where a surveyor can upload coordinates unto to tablets and with the use of Geogenic on the field, The surveyor can determine if the coordinates match the ground location and will also know of any development that has been done on the land since Ground information will be stored and updated frequently on the Cloud database.

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