



GHANA
LAND ADMINISTRATION PROJECT

- **SATELLITE POSITIONING IN CUSTOMARY LAND BOUNDARY DEMARCATION IN PERI-URBAN GHANA.**
CASE STUDY: EJISU PARAMOUNT STOOL LAND.


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INTRODUCTION

IDENTIFICATION OF WEAKNESSES IN THE LAND ADMINISTRATION SYSTEM:

- Indeterminate boundaries of customary owned lands- stools,skins,families and paramount areas
- Insecurity of tenure
- Complex land acquisition processes
- Land disputes





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Cont'd: weaknesses

- Delayed developments
- Economic / Revenue losses
- General indiscipline

The Government of Ghana is therefore pursuing a comprehensive Land policy through the Land Administration Project(LAP) to improve the land acquisition processes





Policy Direction

The policy seeks to address key issues identified in the National Land Policy document, which includes the problems enumerated above.

The success of the programme is expected to



- Enhance security of tenure
- Simplifying the land acquisition processes
- Reducing the cost of land transaction
- Enhancing economic and social growth





PROJECT OBJECTIVES

- To defined the boundary between Ejisu paramount area and the adjoining paramount areas in the field for easy identification.
- To provide credible documents, including coordinates, giving a detailed description of the boundary and for which the paramount chiefs will give a firm undertaking to accept its location
- To gain appreciation for the benefits that the existence of a clear boundary will bring to the present and future generations and the need to maintain them



OBJECTIVES cont'd

- To convince the concerned population by word and proof that, thanks to modern techniques (satellite positioning), it is futile to shift or destroy boundary markers of any kind or quality.




FIG SYDNEY 2010
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METHODOLOGY

- a. Education & sensitization of stakeholders
- b. Reconnaissance survey
- c. Labour Hiring
- d. Establishment of stations along boundary
- e. Field measurements:
 - i. Planting of pillars and shrubs
 - ii. GPS survey & Detailing.
- f. Office work:
 - i. Processing of GPS data
 - ii. Map Productions.




FIG SYDNEY 2010
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a. Public Education/Sensitization

▣ A series of public awareness campaigns were organized with the LAP officials to educate all the key stakeholders.





FIG SYDNEY 2010
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❑ TARGET GROUP:
Paramount Chiefs, chiefs, Elders, District Assembly, Area Councils, Farming communities, etc.



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FIG SYDNEY 2010
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b. Reconnaissance survey

- ❖ The RAPS and the other interested parties were involved to arrive at a common boundary.
- ❖ Two types of boundaries were identified:
 - a. Land boundaries, (Lb)
 - b. Natural boundaries (rivers, streams, and Forest Edge) (Nb)

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FIG SYDNEY 2010
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Reconnaissance Survey cont'd.

- ❖ Once the RAPS had agreed upon the common boundary,
 - i. survey stations were selected at the Transition points ranging between 0-1km based on the nature of the boundary.
 - ii. Putting in pegs at the selected stations.
 - iii. Clearing of Boundary (about 2metres wide).

Note

- ❖ The process was run to meet the acceptance of the paramount chiefs.
- ❖ The survey team made it a point to be always on the field with the RAPS.






FIG SYDNEY 2010
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c. Labour Hiring

Labourers were hired from the adjoining communities with the following reasons:

- a. As a source of employment,
- b. For them to develop interest in the project,
- c. To make the positions of the boundary pillars known to them,



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iv. Planting of pillars

TWO TYPES OF PILLARS: 1. Survey pillar 2. boundary pillar

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a. Natural boundaries: Survey pillars eg. Streams and Rivers

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- b. Land Boundary:
 - i. Survey Pillars at transitions
 - ii. Boundary pillars @ 100metres apart with

Ntome in-

Survey pillar



V. Data collection

Two Teams comprising six and eight peoples were created.

- i. The first team was trained by a technical team to
 - a. Use Geographic Positioning System (GPS)
 - b. Use a handheld GPS to Map and detail the streams



- ii. The second team was used as an advance party in:
- a. Clearing the boundary lines at 2m wide,
 - b. Planting the pillars at the selected stations.



NOTE:

- i. Where the line was hitting an economic tree such as cocoa or timber, the tree was avoided and not cut down.
- ii. Each team was made up of a representative of the chiefs from the towns owning the adjoining lands.



FIG SYDNEY 2010
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a. GPS OBSERVATIONS

i. GPS observations were applied to coordinate all the survey pillars together with the boundary monuments.



The photograph shows two individuals in a rural field setting. One person is standing next to a tripod-mounted surveying instrument, while the other is holding a yellow flag. The field is filled with green vegetation, including banana plants.

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FIG SYDNEY 2010
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b. Detailing

i. Permanent features like roads and the railway lines that cross the boundary at some points were detailed and plotted on the plan as well.

ii. Natural features like rivers, streams etc. were also detailed.

iii. Also, settlements that were so close to the boundaries were detailed.


iv. All the farms that lie along the boundaries were captured and the names of the owners were recorded in the field books.

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Results:

- i. The GPS data observed was processed.
- ii. The data was integrated into the new National Geodetic Reference Network (GRN),
- iii. The data was imported into ArcMap for the needed spatial analysis and a database was created.
- iv. Maps were plotted at appropriate scales.
- v. The positions of all the boundary markers of all kinds were also noted in the field books as well as on map.



The slide features a header with the FIG 2010 logo and text. The main content is a list of five results. At the bottom, there is a logo for the Ghana Land Administration Project, which includes a stylized map of Ghana and the text 'GHANA LAND ADMINISTRATION PROJECT'.

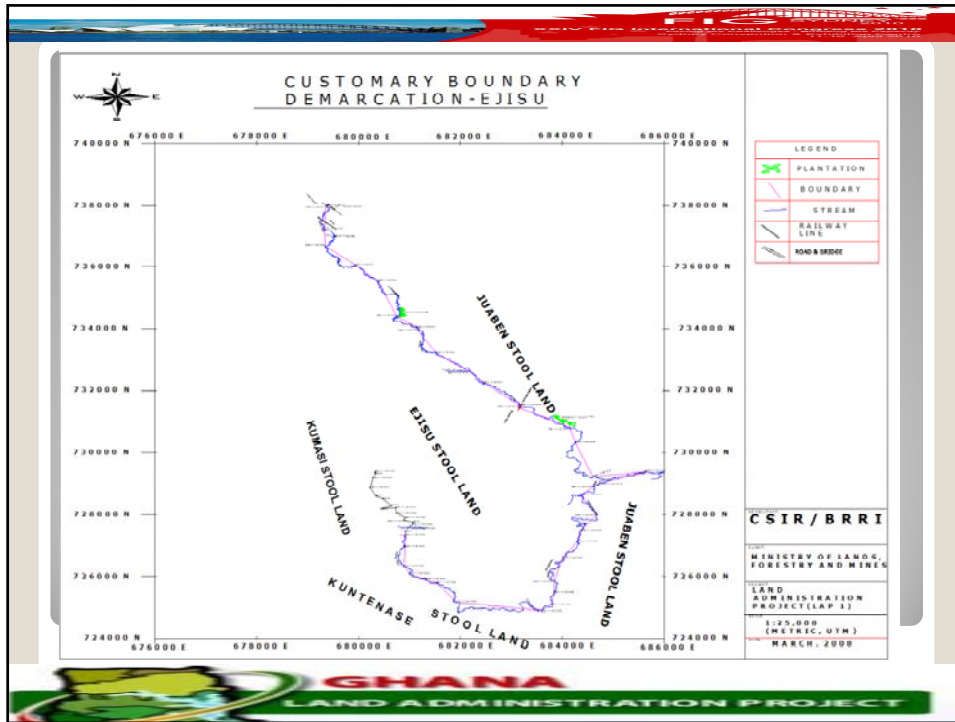
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DGPS BASE STATION AT B.R.R.I

- i. As reference station.
- ii. For differential corrections



The slide features a header with the FIG 2010 logo and text. Below the header is a title and a list of two uses for the DGPS base station. A photograph shows a tall, grey metal pole with a DGPS antenna mounted on top, situated in a grassy field with trees in the background. At the bottom, there is a logo for the Ghana Land Administration Project, which includes a stylized map of Ghana and the text 'GHANA LAND ADMINISTRATION PROJECT'.



THANK YOU