

## Capacity building of the COCOBOD-CSSVD Unit for Digital Maps Management in support of the Cocoa Swollen Shoot Viral Disease Control Management Program

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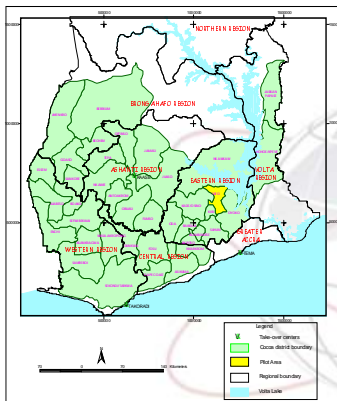
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## OBJECTIVES

- convert all hard copy cocoa sector and farm area maps to a GIS format
- Digitally harmonize cocoa sector and farm area maps with the 1:50,000 national topographic map series
- Design and develop a prototype GIS database as a data management tool to assist in decision-making concerning resource management of the cocoa swollen shoot viral disease control programme
- Develop capacity within the Cocoa Swollen Shoot Viral Disease Control Unit to convert analogue maps and effectively use the Cocoa Swollen Shoot Control Management Information System (COSSCOMIS) for monitoring the Cocoa Swollen Shoot Viral Disease.

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## PROJECT PILOT AREA



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## SECTOR MAP AND ATTRIBUTE DATA CONVERSION

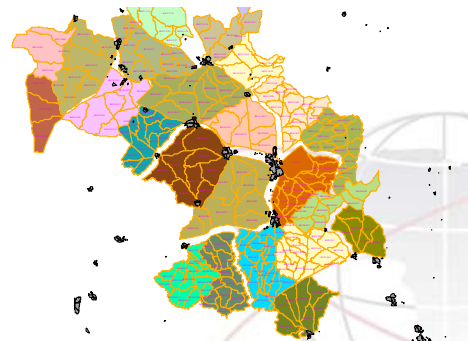
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## SECTOR MAP DIGITIZATION

- 22 Sector Maps Digitized
- ArcInfo used for the digital conversion
- Output map contained discrepancies of mismatching Sector boundaries
- Discrepancies traced to the original compilation processes

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## ERRORS OF MISMATCHING SECTOR BOUNDARIES REALISED AFTER THE DIGITAL CONVERSION



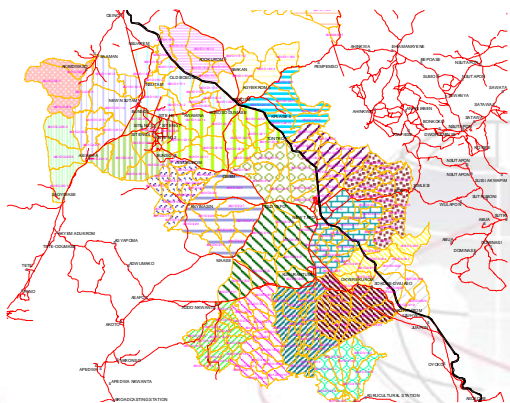
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### SOURCES OF ERROR IN THE ORIGINAL COMPILATION PROCESSES

- Chain and compass technique used was low order survey method
- Magnetic influence on the compass could cause false readings
- Distance measurements by pacing
- Slope factor in chain measurements uncorrected
- Faulty calibration of the prismatic compass
- Dimensional instability of the tracing paper
- Crumpled cartridge paper used for the plotting
- Blunt tips of mechanical pantograph used for enlarging from the topographic maps to the sector map scale
- Six times enlargement from 1:50,000 topographic maps scale to 1:7920

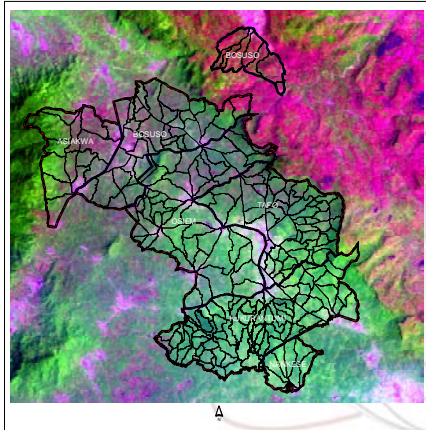
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### OUTPUT MAP FROM THE REMOVAL OF THE ERRORS OVERLAID WITH RAIL, ROAD NETWORK AND SETTLEMENTS



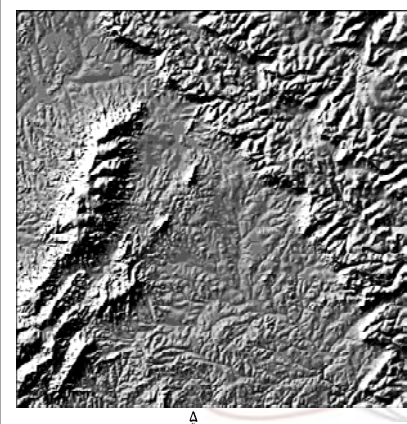
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Satellite image overlaid with the corrected sector map of Tafo Cocoa District



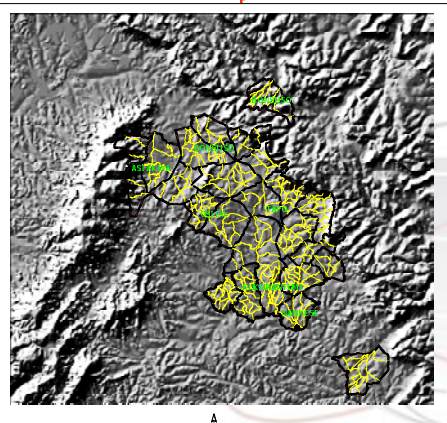
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Relief and Topography visualized in 3D of the District overlaid with the corrected sector map of Tafo Cocoa District



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Relief and Topography visualized in 3D of the District overlaid with the corrected sector map of Tafo Cocoa District

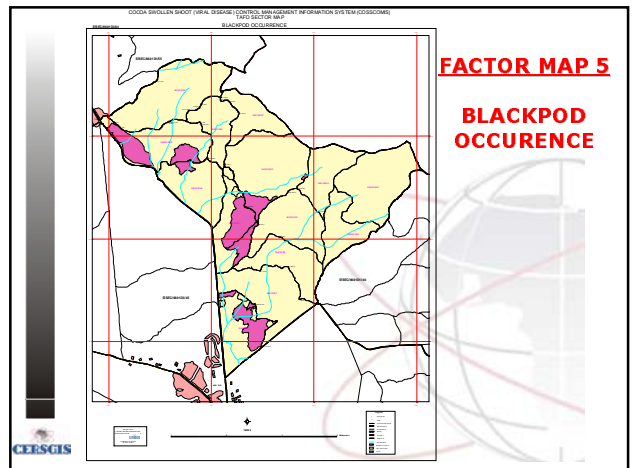
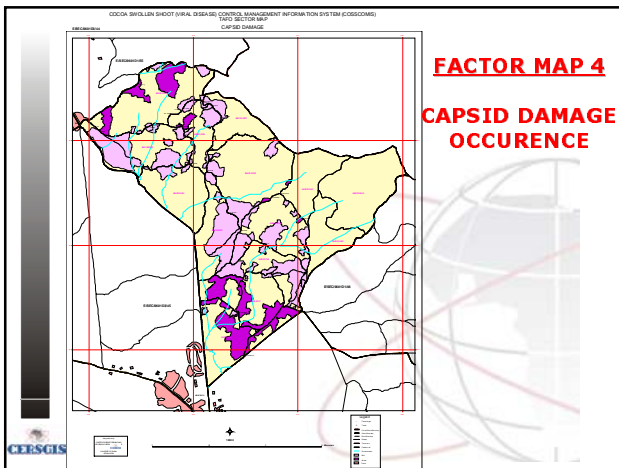
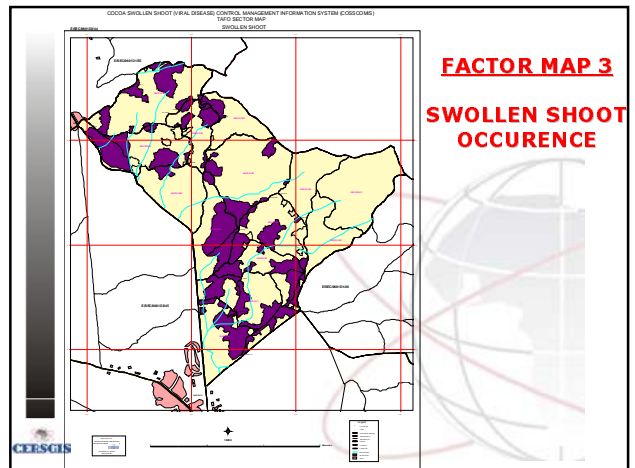
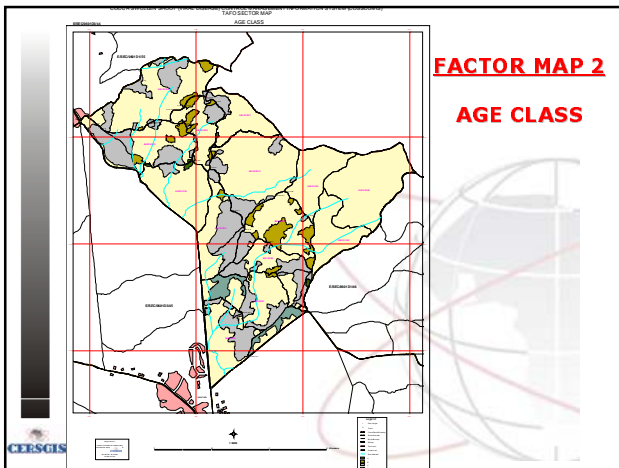


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### FARM LEVEL ATTRIBUTE DATA

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**STAFF TRAINING AND CAPACITY BUILDING**

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Five selected staff from the cartographic section of CSSVDU was trained on-site in :

- Computer Appreciation,
- GIS and Data Management

Training at CERSGIS included:

Intensive hands-on exercises in the CERSGIS GIS laboratory.

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### CONCLUSION

- Headquarters Laboratory is established and fully operational.
- Two supporting regional laboratories are also being established.
- CERSGIS is continually providing the technical back-up for sustaining the Project

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and  
e-Governments  
for  
good governance  
(e-GGGG)

**CERSGIS**  
"Confidence Builders in Resources Management Information Systems"

*Thank You.*

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