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Report of the training workshop on
**GIS & Remote Sensing for effective resource
management in Africa**



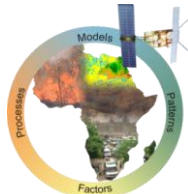
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**GIS LABORATORY, DEPT OF GEOGRAPHY & REGIONAL PLANNING,
UNIVERSITY OF CAPE COAST (GHANA)**

10 – 13 AUGUST 2010

(TUTORS: NOELLIE RÜTH, DANIEL EILERTZ, DR. TOBIAS LANDMANN)



Introduction

Day I

9:00 GMT- Arrival and introduction of participants and resource persons for the programme. Kofi and Dr. Barima Antwi (Head, Geography and Regional Planning, UCC) said a welcome note. Little change was conferred on the itinerary of the four (4) – day training due to the programme outline of Dr. Tobias Landmann.

9:18 GMT- Noellie R  th commenced the first session with a theoretical introduction of Remote Sensing.

9:50 GMT- Dr. Tobias Landmann took the participants through the Practical Session II which touched on Remote Sensing – Pre-processing and basic image processing. This session also touched on importation of image files (tiff files), creating of subset, band creation and cleaning atmospheric obstacles so as so better classify satellite images.

11:15 – 16:00 GMT- The time was dedicated for practical lessons on ENVI and Erdas that is to get participant to better understand how the two platforms work. This was done with the able abassistance of Daniel and Noellie. The day’s session ended at 16:00GMT.



Interaction with participants



Practical sessions with participants



Coffee break session where the lecturers discuss with participants

Day II

9:00 GMT- The day's session commence with a recap of Day I practical lessons. The day's session continued with lessons on changes in spectral images to make meaningful representations. There were lessons on changes in colour representation/combinations to represent spectral images, maximum likelihood and hyperspectral mapping. Colour combinations dealt with were grouped under burnt area, vegetation (savannas), water bodies and grassland. The basic aim was basically to represent spectral images of regions of interest.

The second days lessons touched on Land Cover Mapping and Land Cover Change Mapping. These presentations were made by Noellie and Dr. Tobias Landmann. The image classifications they showed were based on ENVI and Erdas software packages respectively. The day's session ended at 17:00GMT.

Day III

9:00 GMT- The Third Days lesson which was divided into two sessions was presented by Daniel. The first session touched on the Theoretical Introduction to Geographic Information Systems (GIS). In this session, the meaning of GIS, types of projections, coordinate systems, vector and raster data types were briefly introduced to participants.

10:50 GMT- Daniel started the second session with brief introduction of participant to the interface of ArcGIS Tools, Functions, and attribute data of layers on the ArcGIS platform. Participants were taken through changing a layers symbology, attribute selection, selection by location, and query selection amongst others.

14: 00 GMT- After the lunch break, participants were taken through some clip functions, merge functions, buffer functions and the intersect functions briefly. The rest of the afternoon was dedicated to practical exercises from the demonstration/exercise files. The final item touched on data export after an interactive work has been done on the ArcGIS platform. The day's session ended at 18:00GMT.

Day IV

9:00 GMT- The day's session saw a recapitulation of the previous day's knowledge. In this session, participants were taken through the creation of maps and final output of exercises on the ArcGIS platforms. By this procedure, maps layers created were changed from the data view into the layer view for other cartographic cosmetics to be added on to the exercise to finally come out with a composite map.

10:45 GMT- Noellie took participant through on how to obtain GPS waypoints from a GPS, how to edit it from the attribute table to suit once preferences, and how to work with it on the ArcGIS platform.

11:27 GMT- Kofi Nyarko gave the concluding address and thanked all participants for their participation and cooperation.

11:29 GMT- Open Forum – Comments and Recommendation

According to Dr. Antwi, the workshop was well organized as he enjoyed every single bit of the lessons. He also commended the resource personnel for making the workshop a more practical one. However, he requested that during the next possible workshop, resource personnel should provide location specific data so they could better understand this around them and make meaningful decisions.

The EPA representative said he enjoyed the workshop but requested that in the next meeting, participants should be made to go to the field to collect data on the GPS, so as to start the whole practical lesson from the scratch. Other participants also agreed to this recommendation.

The participants' body were impressed with the theoretical and practical lessons given them by Noellie R uth, Daniel Eilertz, and Dr. Tobias Landmann. For Noellie, she was commended for trying her best to use the English language as she is from a french speaking country (Ivory Coast). The workshop ended at 11:38GMT.

List of participants in Ghana

N ^o	NAME	INSTITUTION	EMAIL	TELEPHONE
1	Tobias Landmann	DLR/ University of Wurzburg	tobias.landman@uni-wurzburg.de	
2	Harris Francis Annor	CSIR-SR, Kumasi	andhorris@gmail.com	
3	Wilson A, Agyare	DAE-KNUST	wagyare@yahoo.com	
4	Raymond Kasei	UDS-Navrongo		547016073
5	Boateng Ampadu	UDS-EES-NAV	boatengampadu@gmail.com	
6	L.K. Sam-Amoah	UCC- Agric Engineering	lk_samamoah@yahoo.com	
7	D.S. MacCarthy	UG-Agric Research Institution	kpongor@yahoo.com	
8	Frederick Logah	CSIR-WRI, Accra	logahfy@yahoo.com	
9	Emmanuel Obuobie	CSIR-WRI, Accra	obuobie@yahoo.com	
10	Godwin Sepogah	EPA, Accra	gnysepogah@yahoo.com	208187881
11	Richard Oppong B.	Irrigation Development Authority	roppongboateng@yahoo.co.uk	
12	B.O. Antwi	CSIR- Social Research Institute-Kumasi	bantwi2003@yahoo.com	
13	J.D. Owusu Sekyere	UCC- Agric Engineering	jaydosus@yahoo.com	246630513
14	Justice Nana Inkoom	UCC-Geog & Regional Planning	justinkoom@yahoo.com	243376492
15	Issahaku Adam	UCC-Hosp & Tourism Mgt	gadofirst@yahoo.com	242358740
16	Emmanuel A. Mensah	UCC-Geog & Regional Planning	e_a_menash@yahoo.com	26816806
17	Lumor Mamuh	WRC-Ankobra Basin		0244533990/ 031292815
18	Justice Camillus Mensah	UCC-Geog & Regional Planning		249673055
19	Noellie Ruth	DLR/ University of Wurzburg	jaomail@uni-wurzburg.de	
20	Benjmain Kofi Nyarko	GLOWA-Volta Project	bnnyarko@yahoo.co.uk	
21	Adelina Mensah	University of Ghana		
22	Asare Gyasi-Doku	MWRWH-Water Directorate	asareyasiduku@yahoo.co.uk	
23	Alhassan I. Zakaria	SARI, Tamale		
24	Nortey Samuel	Institute of Mathematical Sciences, Accra		
25	Daniel Eilertz	DLR/ University of Wurzburg		
26	Theodore Kpodonu			
27	Mantey, Saviour	UMAT, Tarkwa	smatey@umat.edu.gh	