

Space Applications and Environmental Science Laboratory (SPAEL)



A Report of Capacity Building Programme on Applications of Remote Sensing/GIS for Forestry Management in Nigeria held from 4th–15th October, 2010 at Space Applications and Environmental Science Laboratory, Institute of Ecology and Environmental Studies, Obafemi Awolowo University, Ile-Ife, Nigeria.

1.0 Introduction

The Space Applications and Environmental Science Laboratory (SPAEL), in the Institute Of Ecology and Environmental Studies, Obafemi Awolowo University (OAU), Ile-Ife, in collaboration with Ecology Fund Office (EFO), Office of Secretary to the Government of the Federation, the Presidency, Abuja, organised a capacity building programme from 4th-15th October, 2010. The workshop was designed to run in two batches, the first was from 4th - 8th October, 2010 (for participants from the northern part of the country) and the second batch from 11th-15th October, 2010 (for participants from the southern part of Nigeria). The theme of the workshop was **'Applications of Remote Sensing/GIS for Forestry Management in Nigeria'**. The goal was to train and develop human capacity on the applications of space technology in forestry management.

2.0 Attendance

The workshop had participants in attendance drawn from Federal and State Ministries and Departments of Forestry. Participants for the first batch came from the following States: i. Sokoto, ii. Kebbi, iii. Zamfara, iv. Katsina, v. Jigawa, vi. Kano, vii. Yobe, viii. Borno, ix. Gombe, x. Bauchi, xi. Kaduna, xii. Niger, xiii. Adamawa, xiv. Taraba, xv. Kwara, xvi. Kogi, xvii. Benue, xviii. Nassarawa, xix. Plateau and xx. Federal Capital Territory (FCT).

The participants for the second batch were drawn from i. Oyo, ii. Ogun, iii. Osun, iv. Ondo, v. Edo, vi. Ekiti, vii. Lagos, viii. Delta, ix. Bayelsa, x. Imo, xi. Rivers, xii. Abia, xiii. Akwa Ibom, xiv. Ebonyi, xv. Enugu, xvi. Anambra, xvii. Cross Rivers and 3 nominees from Federal Department of Forestry. The participants included directors, deputy directors, forest conservators as well as researchers from Universities/Research Institutes with diverse academic background, e.g. Botany, Forestry Conservation and Management, Tourism, Geography, and Agriculture (see Table 1 for list of participants).

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3.0 Lectures and Practical

The workshop included hand-on-tool training sessions (Table 2). The first day focused on Introduction to Remote Sensing and Geographic Information System (GIS), Forestry Applications of Remote Sensing and GIS; second day was devoted to hands-on-tools practical session on basic image processing techniques, Identification of forest margins and human settlements from satellite images, Practical session on Land use/cover Mapping. The third day was centred on NDVI creation, Change detection techniques in forestry management, Derived deforestation map of forest margins; while the fourth day was for fieldwork (Figure 1) and dropping GPS points taken from the field on the image. The fifth day was utilized for the presentation of the group projects by the participants and workshop evaluation (Figure 2). The participants contributed well in the discussions and asked questions that demonstrated their understanding of the lectures. Each participant produced a Land use/cover map. The workshop was a big success, being the first of its kind in the country. The participants commended the organisers for the quality of the facilities and facilitation, the relevance of the materials, as well as the experience and skills of the lecturers. Most participants hoped that the workshop would be the beginning of a new era in Forest Management in Nigeria, because they benefited immensely. Participants were given certificate of participation (Figure 3).

Table 1: List of Participants at the Workshop.

S/N	Name	Institution/Organization	E-mail Address	Phone
1.	Isa Ibrahim Ahmed	Zamfara Ministry of Env't.	isaibrahimbungudu@yahoo.co	07037733668
2.	Anthony DM Kachiro	Kaduna Ministry of Env't.	kachiro@envikad.com	08120119707
4.	Haladu Bulama	Ministry of Env't. Jigawa	-	07039816317
5.	Ebiloman Samson	Ministry of Agric. Kogi	ebilomasamson@yahoo.com	08069607172
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7.	Olalekan Pereira-	Ministry of Env't. Lagos	asheteolu@gmail.com	08080423286
8.	Latti A. Tarfa	Ministry of Env't. Adamawa	-	08065551653
9.	Hassan Musa	Ministry of Env't. Yobe State	hassanmusazdw@yahoo.co.uk	08132039103
10.	James Yariyo	Ministry of Env't. Gombe	James.yoriyo@yahoo.com	08025715555
11.	Ibrahim Hassan	Ministry of Env't. Kebbi	lkwaido@gmail.com	08065542869

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18.	Adeyokunnu Samuel Sunday	Ecological Fund Office,	Sam-soj@yahoo.com	08036069837
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20.	Ajibola Abimbola	Federal Ministry of Env't.	ajiiiforsure@yahoo.co.uk	08033659158
21.	Otusanya Olutobi O.	Obafemi Awolowo University, Ife	ootusanya@yahoo.com	08033587891
22.	Omoareloje Luke	Dept. of Botany, O.A.U. Ife	macluke@yahoo.com	08068105410
23.	Ologun Biodun Freeman	Federal Ministry of Env't. FDP,	ologfreemania@hotmail.com	08087711278
25.	Tella Oludare	Dept of Peace and Conflict	oludaretella@yahoo.co.uk	07086399094
26.	Friday Oriakhi	Ministry of Env't, & Public	-	08035426962
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28.	Ukpai Agha Agha	Federal Ministry of Env't. Abuja	Ukpaison@yahoo.com	07086117730
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30.	Yerome John Ighrakpata	Delta State Environment	yeromeighrakpata@yahoo.c	07034406542
31.	Terdo Anku	Water Resources & Environment,	aukudwem@yahoo.com	07030455164
32.	Ezekiel Olusegun Abiodun	Env't & Water Resources, Oyo	Olusegunabiodun46@yahoo.	08038092301
33.	Chindaba Mhusaya Khwashim	Federal Ministry of Env't. Abuja	mhusayachindaba@yahoo.c	08054181800
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40.	Onodu Udeze John	Forestry Commission Enugu	Jupo4director@yahoo.com	08034718819
41.	Aloba Oluwadare Marcus	Ministry of Natural Resources,	Marcus_aloba@yahoo.com	08033633009
42.	Musa Aruwa Musa	Federal Ministry of Env't. FCT	musaaruwa@yahoo.co.uk	08037051831
43.	Theophilus U. Janar	Min. of Environment, Jalingo,	Bilmaconcept@yahoo.com	08027648002

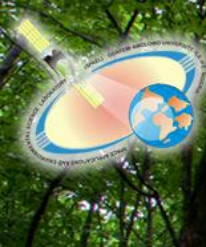
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Table 2: Applications of Remote Sensing/GIS for Forestry Management in Nigeria.

DATE	TIME	TOPIC/ACTIVITIES
DAY 1 Monday	9.00 – 10.00	Registration and Opening Ceremony
	9.30-12.30	Registration and Opening Ceremony
	12.30- 14.00	Lunch
	14.00-17.00	Introduction to Remote Sensing and Geographic Information System Forestry Applications of Remote Sensing and GIS
DAY 2 Tuesday	9.00- 12.30	Hands-on-tools practical session on basic image processing techniques
		Identification of forest margins and human settlements from satellite images
	12.30- 14.00	Lunch
	14.00-17.00	Practical session on Land use/cover Mapping
DAY 3 Wednesday	9.00 – 12.30	NDVI creation
	12.30- 14.00	Lunch
	14.00-17.00	Change detection techniques in forestry management
		Derived deforestation map of forest margins
DAY 4 Thursday	9.00 – 17.00	FIELD WORK
DAY 5 Friday	9.00- 12.30	Visualisation techniques
	12.30- 14.00	Lunch
	14.00pm-17.00	Presentation of Pilot Project & Workshop Evaluation
DAY 6 Saturday	DEPARTURE	

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Gallery



Figure 1: Field Work

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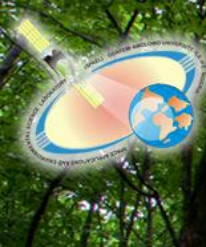


Figure 2: Group Projects and Presentations in the Workshop.



Figure 3: Presentation of Certificate