MAPPING OUR WORLD
Challenges and Lessons introducing GIS Programs
In Kenya Schools

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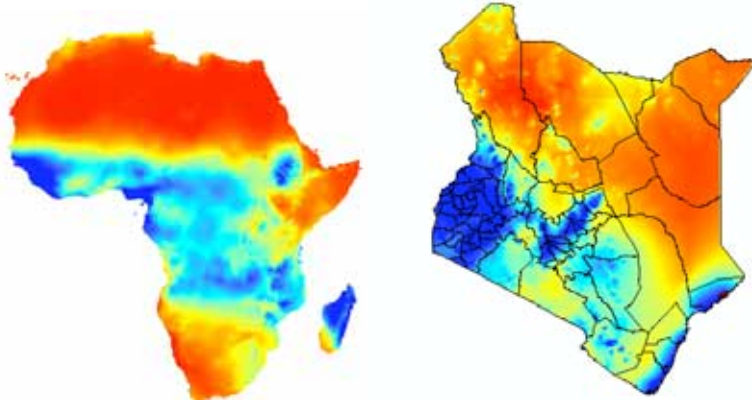**Presentation date: Thursday July 2nd, 2005**

Presentation time: 10.30 a.m.

Venue: Room 24-B (SDCC)

INTRODUCING KENYA

Location: -

Size: -
Kenya is about twice the size of Nevada covering an area of 582,650 sq km. It shares borders with five countries: Ethiopia, Somalia, Sudan Tanzania and Uganda. The Kenyan Coastline stretches for 536 km.

ICT IN KENYA

The last few years have seen a rapidly growing interest in Information Technology (IT) in Kenya in general and specifically in Information Communication Technology (ICT).

The newness of this technology in our part of the world is reflected in the frequency with which one hears the terms IT and ICT used synonymously in reference to the use of computers – both hardware and software. This will be reflected in my presentation too.

EMERGING ICT TRENDS

COMPUTER USE
The early 1980s, saw a growing interest in the use of computers – mainly at the individual level mainly among Kenyan Consultants whom being well traveled, appreciated the use of computers in presenting their reports and on return back home brought some back home and used it.

Such were the informal ways that computer technology transfer found its way into the Kenyan market and into our hearts. One unofficial export from Kenya is human in nature as with escalating levels of unemployment, many Kenyan professionals seek employment and 'greener pastures' out of the country elsewhere on the continent and abroad.
As with every good and patriotic Kenyan abroad, these expatriate consultants and lecturers came back home and shared with their peers of the marvels of computers, first lecturers, then job seekers and finally government institutions began importing computers and training their staff

to use them for greater efficiency in their operations. Today computers are readily available at prices that are increasingly affordable.

MARKET-DRIVEN COMPUTER TRAINING

As the computer gradually replaces the good old typewriter in the workplace, so have the basic job requirements been modified to include computer literacy.
To equip students effectively, most parents in urban schools deliberately enroll their children in schools offering computer classes. To bridge the IT gap rural and peri-urban schools with neither electricity nor computer facilities, Secondary and High School leavers from both rural and poor urban schools attend computer classes awaiting further studies admission.
Even employed adults are attending computer classes as a matter of necessity.

In response to this market-driven demand for computer literacy, most universities have established computer-training departments offering computer courses at certificate, diploma, and undergraduate and postgraduate levels.

GIS TRAINING IN KENYA

The last three years have seen a growing interest in the use of GIS in some university courses in Kenyan universities. The specialized courses either teach GIS as a unit or for a few credits. These courses include units in undergraduate Geography courses at Moi University in Eldoret and Kenyatta University (KU) in Nairobi – has a GIS centre for students and taff. Most KU students are teacher trainees pursuing B.Ed. courses so their GIs training is a wonderful strategy beign pursued. At Jomo Kenyatta University of Agticulture and Technology (JKUAT) Geometric Engineering Dept offers an undergraduate programme that includes a unit in GIS but they are starting a Masters course in GIS in the coming academic year. University of Nairobi Surveying Dept teaches a unit if GIS and is in the process of drawing up a postgraduate Diploma in GIS.

Student attachments
These institutions send a growing number of their students for attachments in 3rd year and so there is a cordial working relationship between the institutions, ESRI's E.A. distributor ad the KUG.

Why are these programs important for GIs in Schools – these institutions being public universities are producing the next generation decision makers at the national level who will be computer friendly and already GIS sensitized.

In order to sustain the growing interest in GIS at all levels of Ed, we have for the past two years been interesting the teachers in some primary and secondary schools to begin simple GIS activities

SOME INROADS

2004 GIS Day
UCRC: for rural-based school leavers *(Ref. ArcNews Winter 2004-2005 issue)*

St Christophers' Preparatory School (GIS 2004 Day and My CoE 2005)

Other Alternative Avenues

To by-pass bureaucratic bottlenecks, we have networked wit friends of Kenya User Group and will in the second half of this year respond to Invitation to start GIS activities with: -

➢ **GIS Kids Holiday club**: with Africa Regional Centre for Computing Nbi. A popular holiday spot for school children with some computer skills. Includes two 10myeat old computer geniuses that've dev websites for their fathers to market their businesses. Hope they will produce some surprises to show case here at ESRI UC next year (2006)

➢ **ICT/IT clubs** in universities (Daystar Univ, Nbi). Discussed and planned- Sept 2005 seminar, GIS introduction activities – short course for students and staff, GIS attachments and programs

➢ **ICT** Association of Kenya: Oakar Services has been invited to sign up for corporate membership of the just formed ICT Ass of K. We will encourage the IT/ICT clubs and schools to sign up too.

CHALLENGES

Lack of Legal framework: ICT policy in the making with contributions from development organizations like UNDP'S global program on Policy Tools to support ICT use for Poverty Alleviation and achievement of Mugs and other country programs

Lack of GIS certification: GIS yet to have professional certification recognition in Kenya. Mentioned as an issue of concern to KUG members since some people with little GIs training are peddling mediocre GIS skills. KUG has formed a taskforce comprising of a handful of experienced GIS members with clout in both academic and administrative positions to look into the issue of GIS certification. This will also help to set up checks and balances that will help weed out GIS quacks!

Budgetary constraints: most schools have no budget for IT hardware let alone software: OSL to donate free samples of *Mapping Our World* package to – IT clubs, Schools, and for student projects.

Lack of Govt. moral will/commitment: though some government institutions already use GIS in their work, Ministry of Education through their curriculum development wing – Kenya Institute of Education (KIE) are dragging their feet in efforts to draw up a GIs curriculum.

LESSONS

PIONEERS DO NOT GIVE UP!

➢ GIS is **relatively new** to our market region so it will take some time for it to gain acceptance.
➢ Get onto the **IT decision-making processes** right now from the start to ensure that GIS is on their IT/ICT agenda.

SEIZE AVAILABLE OPPORTUNITIES!

IT/ICT seminars, trade exhibitions, ICT policy discussion groups, KUG members to champion the cause of GIS.

BREAKTHROUGH!

The 1st **E.A ICT in Education Convention** is to be brought to our doorstep when **from 9-12 Aug '05** it will bring together an estimated 700students and 500 teachers from Kenya an a similar number from Uganda and Tanzania.

Captive audience: My docket includes marketing ESRI software in our market region so I lobbied for a GIS session to be included in the program so Oakar will have a big exhibition stand with ESRI Ed solutions, to present a paper and will have a 2 hr afternoon clinic for both academic staff, ministry and school administration officials in one room and students and pupils in another room. OSL has liased with KUG education institution members to facilitate these GIS orientation clinic – hands on session and presentation of GIS programs in institutions of higher earning.

As we se it,
The sky is not the limit, it is the beginning
Marking the advent of ESRI's GIS Education Solutions in our market region.

ASANTENI!!

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