



GeoEye: IKONOS - Ivory Coast,
Abidjan, February 14, 2002



GeoEye: IKONOS - Libya,
Tripoli, February 06, 2003

2008 Africa Remote Sensing Study

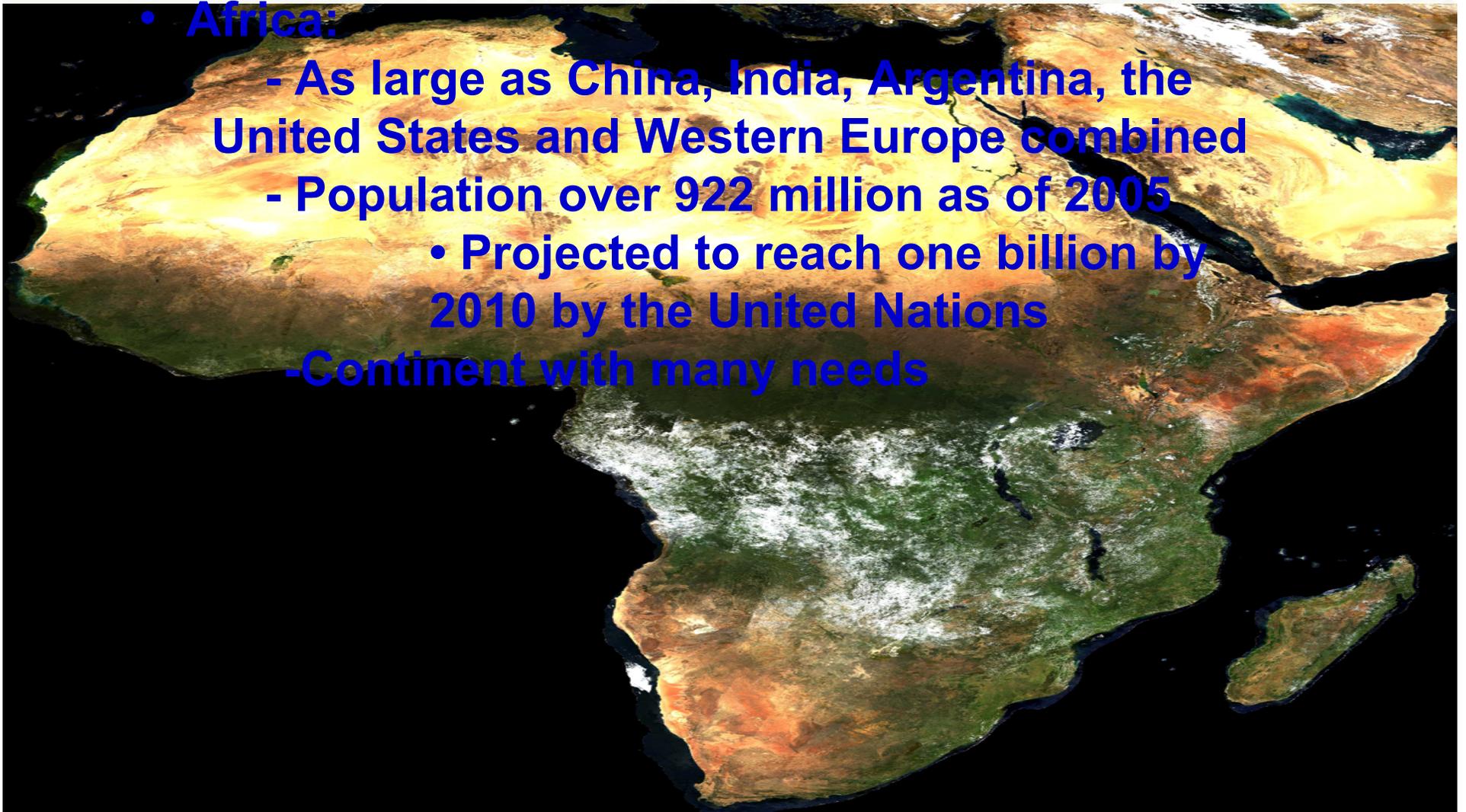
*Aerial and Spaceborne 10-Year Trends
USGS 2008-2018 Africa Remote
Sensing Study*

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Why Africa?

- **Africa:**
 - As large as China, India, Argentina, the United States and Western Europe combined
 - Population over 922 million as of 2005
 - Projected to reach one billion by 2010 by the United Nations
 - Continent with many needs



Why Africa?

- **USGS funded the Africa Remote Sensing Study to monitor the needs and potential growth of the remote sensing market in Africa to determine additional ways to assist**
- **NOAA funded prior studies of Asia, North America, Europe, Australia in 2005 and 2007**

Why Africa?

- **Increasing interest worldwide in the remote sensing and geospatial data industry in Africa**
- **Private sector is promoting the acquisition and use of geospatial data in Africa**
 - The Gates Foundation
 - ESRI
 - Mapping Africa for Africa (MAFA) initiative
 - Others

Study Methodology

- **Data Collection Online survey**
 - Hosted by Global Marketing Insights, GeoEye and in-country partners
- **Data Collection Personal interviews**
 - Conducted by Global Marketing Insights at conferences and industry events
- **Study available:**
 - www.globalinsights.com via PDF
 - Interactive Google Map provides study summary by country

Study Methodology

- **Potential respondents contacted at the following industry conferences and events**
 - **ESRI International User Conference - African User Group Meetings 2008**
 - **GDEST 2008**
 - **GeoInt**
 - **GSDI**
 - **MapAfrica 2008**
 - **AfricaGIS 2008**
- **Press Releases, Journals and Alliance Research Partners In-country**

RESULTS AVAILABLE:

<http://www.globalinsights.com/USGSIMap/results.htm>

USGS African Remote Sensing Research Interactive Map

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2008 African Remote Sensing Market Survey

The research was conducted by ASRC Management Services, producers of Business and Consumer surveys produced by GeoEye, producers of EO/ISR and GeoEye imagery.

SOUTH AFRICA: 1) Main applications of remotely sensed data: Forestry (39%) Natural Resource Management (39%) Environmental Monitoring/Management (56%); 2) Main type of data purchased: Multispectral satellite (74%); 3) Satellite Sensor Camera: SPOT 5 (35%) Landsat 7 (26%) IKONOS (9%).

Project Overview

Research Team

ASRC
GeoEye



Alliance Partners

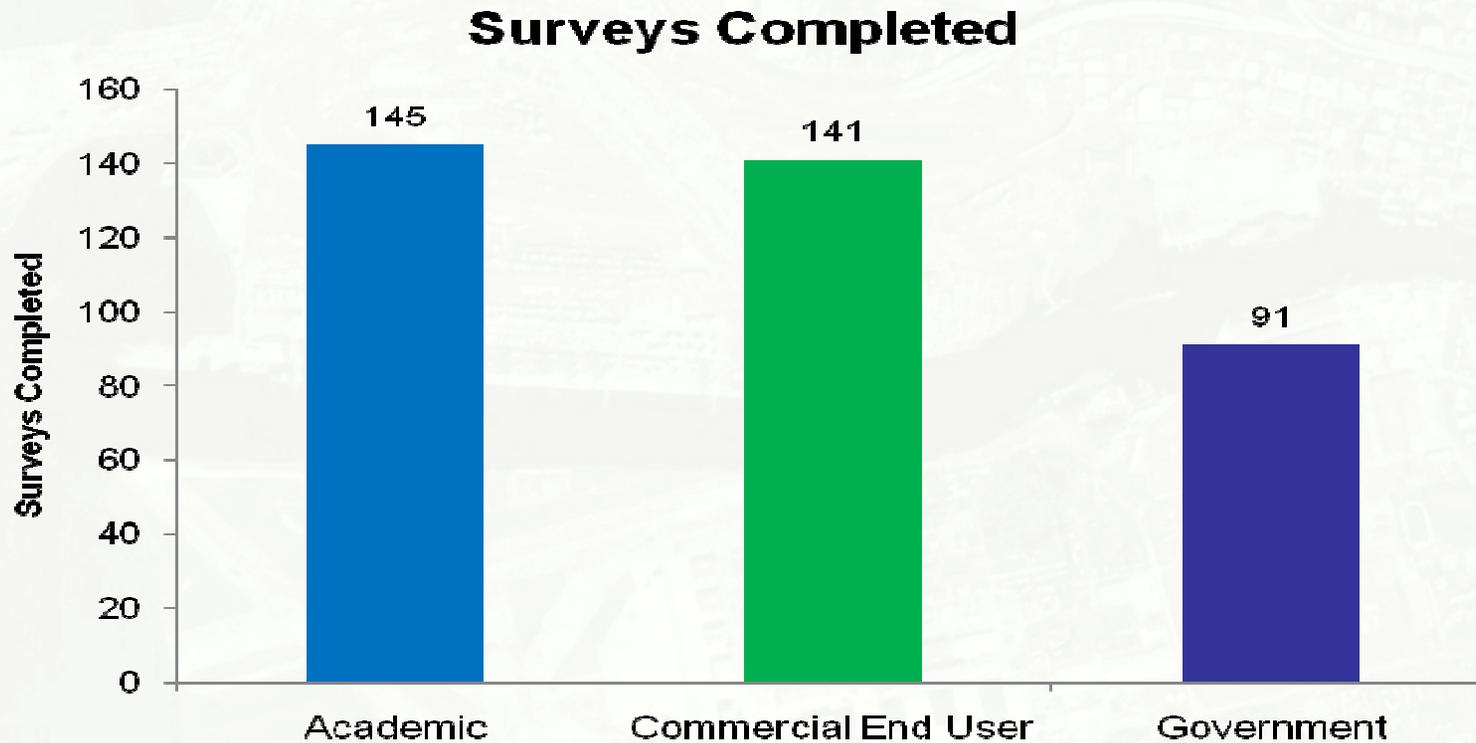
13 alliance partners assisted with data collection by distributing information about the survey to a few thousand contacts.

Partners
AFRICAness - SSI (Spatial Science Institute)
ASRC Mgt. Services (sponsor)
Council for Scientific and Industrial Research (CSIR)
Earth Imaging Journal (EIJ)
ESRI
GeoConnexion
GeoEye (survey sponsor)
GeoInformatics
HighQuest Partners – SoyaTech News
Spatial Business News
Spatial Data Infrastructure (SDI-AP division of GSDI)
URISA African Chapter
Vector-1 Media



Surveys Completed

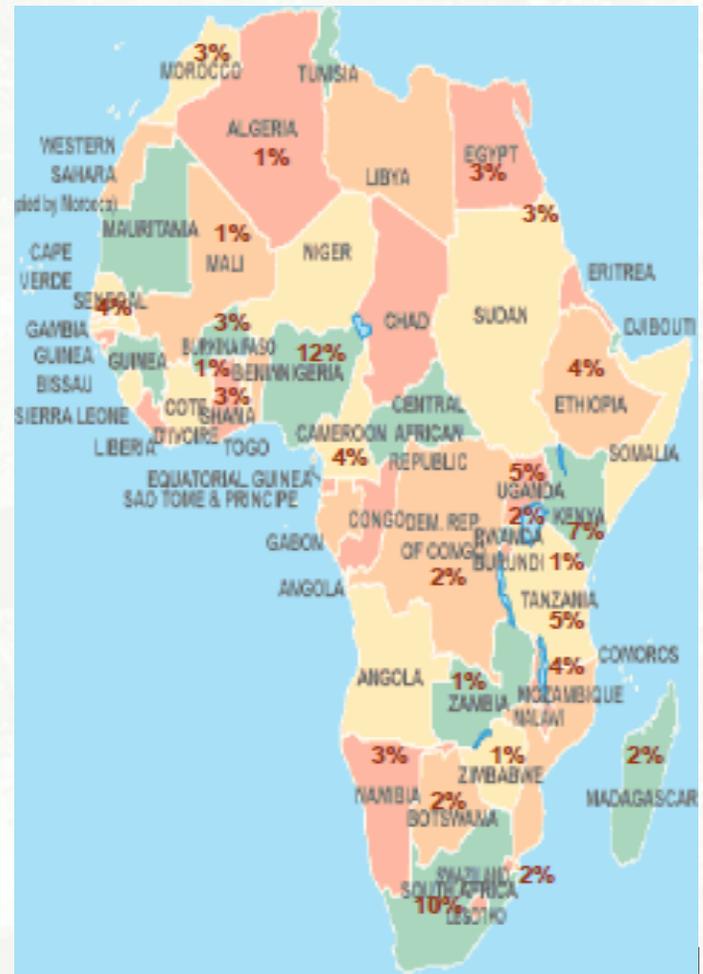
Total surveys completed: 377





African Countries Represented

Country	% of Respondents	Country	% of Respondents
Algeria	1%	Mozambique	4%
Benin	1%	Namibia	3%
Botswana	2%	Nigeria	12%
Burkina Faso	3%	Rwanda	2%
Burundi	1%	South Africa	10%
Cameroon	4%	Sudan	2%
Democratic Republic of the Congo	2%	Swaziland	2%
Egypt	3%	Tanzania	5%
Ethiopia	4%	Uganda	5%
Ghana	3%	Senegal	4%
Kenya	7%	Zambia	1%
Madagascar	2%	Zimbabwe	1%
Mali	1%	Africa – Did not specify state	11%
Morocco	3%		





Key Findings Overview

Technical Advances
•Greater Ground Resolution for future data sets
•Improved GPS units are needed due to the lack of access to ground control
•Easier to use processing software
Political, Economic and Environmental Trends
•Remote Sensing Data becoming a Commodity
•Endangered Species, Natural Resources, Heritage Protection
•Climate Change
Primary Applications
•Environmental Monitoring Management
•Natural Resource Management
•Sustainable Development
•Land Management
Data Usage
•Multispectral Satellite
•Aerial Digital
•Panchromatic Satellite
•Hyperspectral Satellite or RADAR Satellite
• LiDAR (Aerial)



Key Findings Overview

GIS Processing Software Usage
•ESRI
•ERDAS Imagine
•PCI
•RSI Envi
Type of Data most Required
•GIS Data
•Processed Imagery
Data Delivery Media most Required (in order of preference)
•DVD
•CD
•FTP (Commercial users were the only ones to rank the use of FTP higher)
Remote Sensing Project Budgets
•All User Sectors show increasing budgets through 2018
Remote Sensing Project Personnel Levels
•Academic Project Teams of Less than 10 – predict 10%-20% growth over next decade
•Commercial Project Teams of Greater than 25 – predict 20% growth over next decade
•Government Project Teams of Less than 10 – predict 20% growth over next decade

Study Also Addresses

Commercial, Academic and Gov't Users

Applications

Budgets

Data Types

Trends



GeoEye: GeoEye-1, Egypt,
Sphinx, January 10, 2009



GeoEye: IKONOS - Djibouti,
Camp Lemonnier, November 9, 2002

Study Implications Overview



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Study Implications

- **Telecommunication and internet access is improving access to data throughout Africa**
- **Greater number of remote sensing specialists are successfully obtaining data**
- **Greater number of private businesses are assisting in the acquisition of data**
- **Adequate ground control data is still not available**
- **More sophisticated applications and usage of data is evident, rather than just basic data**

Study Implications

- **Greater amounts of Data are available and still Needed**
 - Over a dozen countries currently operate their own remote sensing satellites, including several in Africa:
 - Algeria
 - Egypt
 - Nigeria
 - Morocco
- **Must have a Better infrastructure**
 - Allows access to data almost on demand
 - Provides remote sensing specialists with a network of scientists and practitioners who can assist regardless of location
 - Allows for the development of data sets that are based on needs at the local level rather than national government level

Thank you

- GeoEye www.geoeye.com and ASRC Management Services www.asrcms.com were study sponsors providing the capability for the on-line surveys and interactive map.
- For Free Study go to www.globalinsights.com



GeoEye: GeoEye-1, Egypt, Giza
Pyramids, February 12, 2009

**For Questions please contact:
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