State of the Map (SoTM) Africa, 2019
Cote d’Ivoire, Nov. 22-24
National Geography Awareness Week, 10-16 November, 2019.
“Igniting the Spirit of Exploration”

Mapping the Okavango Wilderness Project
National Geographic Society
November 2019: 10th Anniversary of Map Kibera
Democratic Republic of the Congo: Status of the Ebola Outbreak (June 2018)

Comparision to past outbreaks

28,652 cases in 2014
West Africa outbreak (below)

Current cases: 62

425 cases in Uganda’s 2000 outbreak

Small outbreaks following imported cases or laboratory accidents are not depicted (e.g., Côte d’Ivoire, Nigeria, South Africa, and U.S.).

All other cases since 1976 (above): 2,481
Countries across Africa have implemented border closures, flight and maritime travel restrictions, and traveler monitoring procedures in an effort to prevent the spread of Ebola outside of the countries currently affected.

Liberia and Sierra Leone have declared states of emergency and have closed their borders. Prevention and control measures by military and police personnel include quarantines of selected areas, travel protocols for passenger screening, and restrictions on public gatherings.

Guinea recently declared a national health emergency with tighter border controls, isolation of suspected cases, and regulation of burial practices.

Nigeria has also declared a health emergency and ordered the closure of schools until mid-October.

Sources: CDC, USAID, WHO
The American people, through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR), support the global HIV/AIDS response through bilateral and regional programs in 55 countries. As a result of this commitment, the U.S. supported life-saving treatment for 11.5 million men, women and children worldwide. In addition, the United States is the largest donor to the Global Fund to Fight AIDS, Tuberculosis and Malaria.
Worldwide: Lack of Basic Sanitation, Child Deaths, and Economic Loss

The World Health Organization (WHO) estimates that over 525,000 children under the age of five die of diarrheal disease every year. Approximately 58% of these deaths are due to inadequate water, sanitation, and hygiene (WASH). Although use of basic sanitation has increased since 2000, 2.3 billion people still lack this essential service. The economic losses from poor WASH in middle and low income countries are $260 billion annually. According to WHO, every dollar invested in sanitation generates $8.50 in return through reduced health care costs, increased worker productivity, and decreased mortality.

Annual cost of poor sanitation

Child deaths (under age five) due to diarrhea in context (data for 2015)

The U.S. Government is addressing these challenges through diplomatic engagement and development assistance. Learn more about these efforts and the new U.S. Global Water Strategy at Globalwaters.org.

Populations Impacted by Hunger and Disease (September 2017)
Humanitarian Mapping:
Conflicts Without Borders
Conflicts Without Borders:

Accessible via Google Earth
Since the beginning of this year Ethiopia has more new conflict-driven Internally Displaced Persons (IDPs) than any other country in the world, with over 1.4 million in 2018. Of the approximately 2.8 million total IDPs in Ethiopia, over 2.2 million are displaced due to conflict with over 500,000 remaining displaced by climatic shocks, including drought- and food-induced food insecurity. An estimated 7.9 million people in Ethiopia are in need of emergency food assistance, with those internally displaced being some of the most affected. Ethiopia is also home to over 900,000 refugees that require humanitarian assistance, and is the second largest host nation for refugees in Africa behind Uganda.

Integrated Food Security Phase Classification (IPC) in assessed areas
FEWS NET food security projections for October 2018-January 2019
1: Minimal
2: Stressed
3: Crisis
4: Emergency (not yet reached)
5: Famine (not yet reached)
Secondary Cities (2C) Initiative

https://secondarycities.state.gov/

Emergency preparedness -- Urban resilience -- Human security
“People, Planet and Prosperity”

- Links between environment, poverty, and development
WSSD Johannesburg, 2002

SRTM 90 meter data – free download for African nations and peoples
Partnership: U.S. Department of State; Association of American Geographers; USAID; NASA
GDEST = Global Dialogues for Emerging Science and Technology

GDEST 2008: Geospatial Science & Technology for Sustainable Development in Africa

Objectives/Themes:

• Geospatial Science: Observing and Mapping Africa

• Analysis of regional challenges to Africa: Bring Science to Decision-making

• The Africa Data Stream: Cooperation, Collaboration, and Synchronization in the African Commons
GDEST Site Visit Report

Goal: sustain partnerships and activities to:

• Discover, access, and compile fundamental datasets;
• Build capacity;
• Support and sustain development.

DRIVEN BY PROVIDING FREE COMMERCIAL SATELLITE IMAGERY – open, accessible, shareable, interactive
Social Media Report

Postcards from Quito

10/18 Secondary Cities in Esmeraldas!

Today we announced the launch of a Secondary Cities partnership with Esmeraldas, Ecuador!

The Secondary Cities Initiative builds local capacity to harness geospatial technologies. These tools help build resilience against natural disasters and climate change, and also aid urban planning and management of growth.

Learn more at: goo.gl/Bvup1X

Ambassador Todd Chapman, Mayor Lenin Jose Lara Rhondenino and his wife, Ambassador Nancy Stetson, and US State Department Geographer Lee Schwartz at announcement of the partnership.
Geospatial data is the link to better understand, explain, manage (and map) the urban environment.

Building sustainable cities:

- New Urban Agenda (2016) and Sustainable Development Goals (2015) built upon multiple global agendas;

- Integrated through city, regional, and national government partnerships;

- Need data and standards for measurements, transparency, accountability, and inclusion of non-traditional (industry or academic) partners.

https://www.weforum.org/agenda/2018/10/how-much-progress-has-been-made-on-the-new-urban-agenda/
Mapping for Sustainable Development: 
MCC Hosts Its First-Ever Mapathon

From March 9-May 15, 2015, the U.S. Department of State’s MapGive project organized four Young African Leadership Initiative (YALI) Connect Camps in Tanzania and Namibia. Connect Camps are regional, week-long workshops for Mandela Washington Fellowship (MWF) alumni and their mentees.

Volunteers from USAID, the U.S. Department of State, and the Private sector participate in a mapathon hosted by the Millenium Challenge Corporation (MCC) in Wash, D.C.

The [workshops highlighted OpenStreetMap](https://www.openstreetmap.org) as a community-driven resource.
B. Technology

US Congress: Geospatial Data Act (GDA) of October, 2018:
Reflects growing recognition of the essential role of geospatial data and technology in understanding and managing our world and fosters efficient management of geospatial data, technologies, and infrastructure.
Importance of GI in Africa

Sustainable Development of Africa

Requires

Data
Information
Knowledge

Understanding of
- Environment
- Nat. Resources
- socio-economic opportunities

Slide provided courtesy of Wilber Otichilo, Governor of Vihiga County, Kenya, Africa GIS 2013
Earth Observation + Participatory Mapping Help Dr.ve Decisions

Remote Data capture

Remote Data processing

Analyse
Digitize, Classify

Machine Learning
Artificial Intelligence

Boundaries
Define scale
Area of Interest

Models
Population estimates

Visualisation
Mapping

Participatory Methods
Capture local context

Participatory Methods
In situ data validation

Data-Driven Decision Making
THE REMOTE & FIELD DATA CYCLONE FOR HUMAN GEOGRAPHY
• **Event Goal:** Discover, document, and distribute internal administrative boundary data

• **Challenges:**
  – No official source of internal administrative boundaries
  – Some countries have good boundary data, but it has not been approved by their governments as an official set of boundary data.
  – Industry is moving ahead; not waiting for official data.
## GIS Standards for Combating Trafficking of Wild Flora and Fauna

Platform-Agnostic Standards for Source, Transit, and Destination Geographies

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Information</td>
</tr>
<tr>
<td>Animal Information</td>
</tr>
<tr>
<td>Weapons Information</td>
</tr>
<tr>
<td>Seizure Information</td>
</tr>
<tr>
<td>Origin Information</td>
</tr>
</tbody>
</table>
Fieldwork: Mozambique and Madagascar

Workshops: Addis Ababa, Bangkok, DC
Combatting Wildlife Trafficking

With standardized geospatial data

Scan QR code to view geospatial data standards

Geospatial standards for combating wildlife trafficking incorporate multiple attributes and domains relevant to source, transit, and destination geographies.

Iterative editing and open availability allow the data dictionary to be a living document yet still subject to community-derived standards that enable sharing and analysis to help combat wildlife trafficking.

Fields in the data dictionary are dynamic, meaning attribute entries trigger sub-fields that only appear to the user if the sub-fields are relevant.

Attributes have restricted domains, permitting only predetermined data types (i.e. integer, decimal, text, or date) or even offering a drop down list of acceptable entries.

These fields and domains are themselves dynamic and subject to additions and revisions by the user community.

Scan QR code to view geospatial data standards
Many Challenges to Development and Good Governance Require Geographic Foundation Data
BUILDING A “SATELLITE” TO COLLECT HUMAN GEOGRAPHY DATA

- Priorities
- Gaps
- Scale
- Cost
Thank You

• Questions?

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