



GFSAD30 Field Work Planning: Progress in Africa

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GFSAD30 monthly meeting, February 20th, 2014, Telecon from Flagstaff

GFSAD30 Field Work Planning for Africa

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Objectives

- ❖ **Comprehensive Investigation of 4 key GFSAD30 products:**
 - **Land use: Croplands vs. non-croplands**
 - **Cropping intensity: Single, double, triple, continuous cropping**
 - **Crop watering method: Irrigated vs. rainfed**
 - **Crop type: Major 8 crops and others**



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Work Plan

- ❖ **First field visit: Starts in early June, last 4 – 6 weeks.**
 - ❖ **West & Central Africa:** sowing in May and harvesting on September /October (Mali, Ghana, Niger and Nigeria; Major crops are Maize, Sorghum and Millets).
 - ❖ **East & South Africa** is varying it crop to crop.
- ❖ **Four routes planned: (prioritized out of 8 routes)**
 - ❖ Ethiopia, Kenya, South Africa, Nigeria
- ❖ **Mileage: Up to 5000 Miles**
- ❖ **Primary Crop types:**
 - ❖ Barley, Cotton, Maize, Potatoes, Pulses, Rice, Soybeans, Wheat



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Overview of 8 Initial Routes



8 Routes of field work in Africa, June 2014 (4-5 of these will be selected to focus)



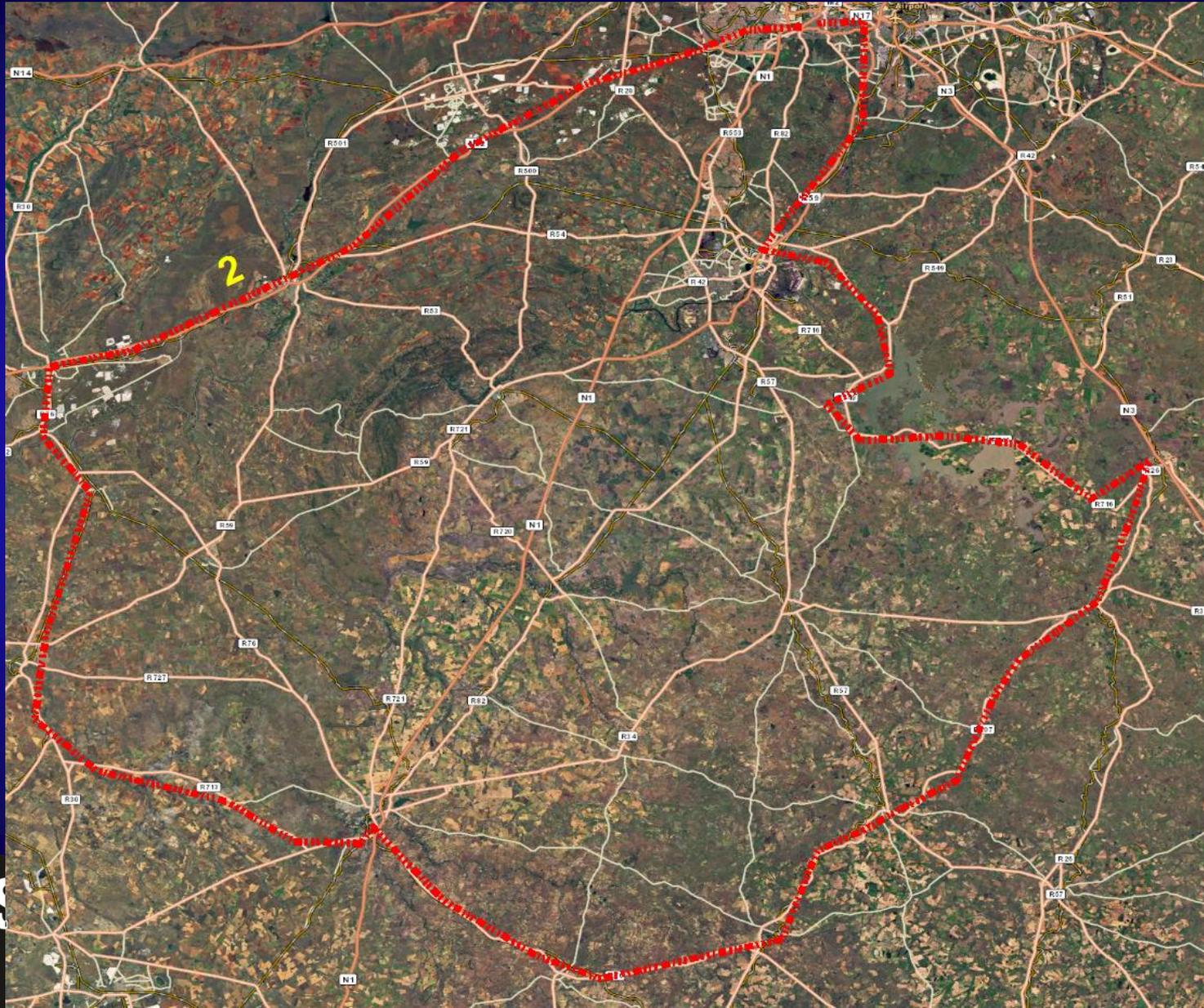
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Route #0,#1: South Africa (South)



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Route #2: South Africa (North)



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Route #3: Kenya



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Route #4: Ethiopia



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Route #7: Nigeria



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Collaboration with ICRISAT

- ❖ **ICRISAT(International Crops Research institute for the Semi-Aria Tropics)**
 - ❖ **Networks in South Africa, Kenya, Nigeria ... etc.**
 - ❖ **Support of ICRISAT regional staff**
- ❖ **Agreement between USGS & ICRISAT**
 - ❖ **Technical Assistance Agreement**
- ❖ **Telecon with USGS Melno to coordinate field work**
 - ❖ **Jan 28th, 2014**
 - ❖ **Feb 11th, 2014**
- ❖ **Final field work plan**
 - ❖ **Jun from USGS**
 - ❖ **Murali from ICRISAT**



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Africa Cropland Knowledge Base

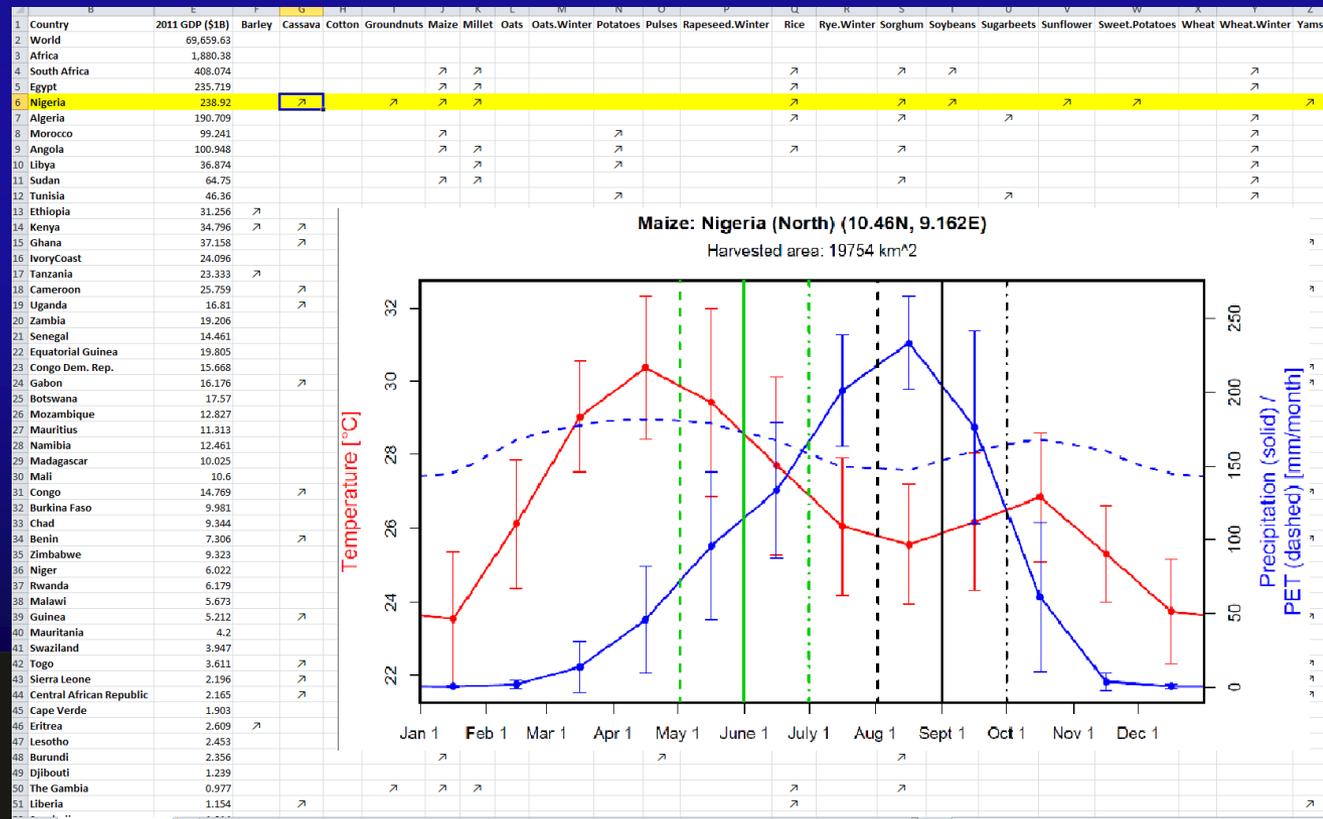
- ❖ Preliminary cropland map (GCE V2.0 @ 250m)
- ❖ Landsat images and high resolution images in 2014 summer time.
- ❖ Complete ancillary dataset (statistics reports, GIS maps about Africa cropland and their reliability)
- ❖ Knowledge from local staff
- ❖ Crop Calendar
- ❖ Cleaned African subset from Multu's global ground truth dataset



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Crop Calendar Lookup Table

- ❖ Source: SAGE, University of Wisconsin-Madison
- ❖ Crop Calendars in 48 Countries, 21 types in Africa
- ❖ Beginning and ending of the crop growth



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field data available



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field data available (cont)



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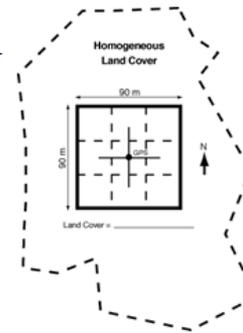
field data form

REFERENCE DATA COLLECTION FORM

Basic Required Information:

GPS Coordinates of Center of Sampling Unit (WGS84, DD): _____

Approximate Size of Sampling Unit (min. = 90mx90m): _____



Date of Collection (month, day, year): _____

1. Crop\non-crop: C\NC
2. Irrigation\Rainfed: I\R
3. CropType (Wheat, Corn, Rice, Barley, Soybeans, Pulses, Cotton, Potatoes, or Other):

4. Crop intensity: single, double, triple, continuous

Observer Name: _____ Expert: Yes or No

Were pictures acquired? Y or N

Any issues or anomalies at site: _____

Additional Desired Information:

Irrigated or Rainfed (circle one)

Cropping intensity: single, double, triple, continuous (Circle one)



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field data sampling strategy

- ❖ **Sampling strategy: stratified random sampling**
- ❖ **Homogeneous representative sampling areas**
- ❖ **Documentation on the above will be created**



Comments? [Contact me](#)

