SANREM CRSP Soil Quality & Carbon Sequestration CCRA

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Objectives

1. Quantify SOC in host country project sites before and after CAPS implementation.
2. Identify CAPS cropping systems or biophysical elements that improve soil fertility.
3. Relate increased soil fertility to site-specific socioeconomic environments.

Meeting of farmers, a local NGO and Soils CCRA in Thumka, Nepal.

Grinding soil samples to pass a 2 mm sieve for shipping in Matphutseng, Lesotho.

How Can We Help You?

We aim to provide support to LTRA and host-country institutions to assist in biophysical analyses and augment partner research to fill gaps in knowledge about CA in their respective countries.

Do you or your partners need help with:

- GIS data collection?
- GHG studies?
- Soil sampling or import/export?
- Soil laboratory capacity building (soil physical/chemical properties)?
- Data analyses or manuscript preparation?
- Environmental compliance?
- Soil quality, C sequestration, or GHG emissions issues?

We want to collaborate. Let's talk.

Demonstrating intact core sampling in Rio Alumbre, Ecuador.

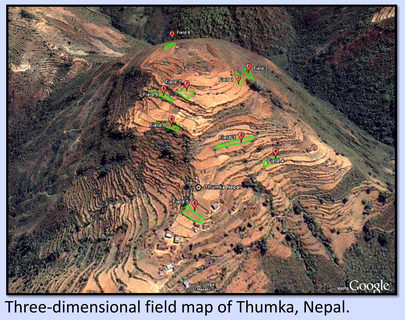
Demonstrating clinometer use in Nepal.

Discussing CAPS treatments in Ecuador.

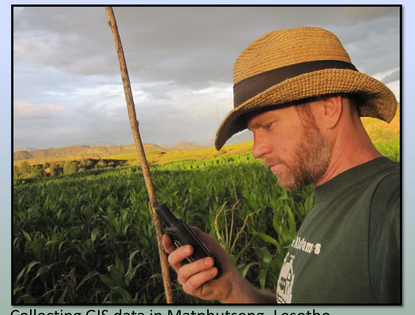
Current Research Activities

- Collecting Time 0 soil samples at 0-5 & 5-10 cm from LTRA sites. To date, we have samples from Ecuador & Lesotho.
- Conducting soil fertility survey alongside household economic survey in Haiti's Central Plateau.
- Planning greenhouse gas (GHG) studies on CAPS experiments in Ecuador.
- Collecting soil samples and GIS data in Nepal, Ecuador, & Lesotho.
- Assisting in experimental design for on-farm trials in Nepal.
- Collaborating with Cambodia partners on manuscript preparation from CA experiments.

Collecting bulk density samples in Roma, Lesotho.



Three-dimensional field map of Thumka, Nepal.



Collecting GIS data in Matphutseng, Lesotho.

Anticipated Products

- Soil library of Time 0 and Time X soil samples from LTRA sites, to be used to quantify soil C and fertility changes due to CAPS.
- Analyses linking soil and economic data in Haiti's Central Plateau.
- Comparisons of GHG emissions between CAPS vs. traditional practices in Ecuador.
- Economic & agronomic analyses of on-farm CAPS in Nepal.
- Peer-reviewed publication from Cambodia CAPS trials.

Potential Impediments

- Incomplete dataset of Time 0 soils from LTRA sites
- C sequestration rates are too slow to detect SOC changes in 5 years

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