Cross Cutting Research Activity 8 Technology Networks

**Purpose:** Collaborate in the participatory research processes led by LTRA’s to design strategies to scale up conservation agriculture production systems (CAPS)

**Objectives:**
1. Identify the knowledge and attitudes (technological frames) concerning agricultural production practices held by actors in the network.
2. Describe the structure of information and physical resource flows between these actors.
3. Determine critical network pathways and opinion leaders facilitating technological change among farmers and their service sector partners.

**Complimentary Approaches:**
LTRA-10 and CCRA 8 Research Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tr>
<td>March 2010</td>
<td>University of Wyoming Team and local partners host 2 sessions introducing an innovation to farmers and Advisory Committees; participating members suggested by NGO partners.</td>
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<td>June-July 2010</td>
<td>Virginia Tech Technology Networks researchers join University of Wyoming Team and local partners in facilitating participatory workshops; includes gendered knowledge and resource generator activities to identify key contacts and resources for agricultural production.</td>
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<td>October 2010</td>
<td>The Wyoming team hosts meetings with local artisans to assess capability to manufacture CA implements; held participatory sessions to develop agronomic trials refine and develop detailed layouts for agronomic trials discuss entry of baseline survey data; and identify on-station and off-farm trial locations</td>
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<td>February 2011</td>
<td>Final identification of on-station and off-farm agronomic locations; demarcation of plots for planting</td>
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<td>February-May 2011</td>
<td>VT Technology Networks researcher conducts follow-up survey to identify social network contacts and survey community agents and agricultural service providers</td>
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<td>March 2011</td>
<td>Planting of first year trials</td>
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<td>March 2011</td>
<td>Present</td>
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<td>April 2011</td>
<td>Monitoring and Principal Investigator follow up with farmers and local teams</td>
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<tr>
<td>February 2012</td>
<td>Host feedback sessions with targeted community/innovation networks for Conservation Agriculture</td>
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**Research Location:**
Eastern Uganda and Western Kenya
Research Districts: Tororo, Kapchorwa, Bungoma, Trans-Nzoia

**Spotlight on Feedback Workshops:**
- CCRA 8 workshops held in each of four communities
- Introduction and clarification of CA and the project by LTRA 10 team (sometimes individuals identified during network survey had not previously been exposed)
- Distribution of brochures and working papers
- Presented data on most frequently reported information and resource contacts of farmers
- Identification of most central actors in network and introduction of network maps
- Examination of beliefs/perceptions about CA principles among farmers according to farm size and extension contact
  - Rotating crops is always best practice
  - One should maintain a permanent crop cover
  - Tillage causes land degradation
- Analyze as a group how beliefs and perceptions are distributed in network using network maps
- Small group sessions to set priorities for addressing remaining challenges to CA, and how to use networks to address these challenges

**Network Map from Kapchorwa, Uganda regarding whether “tillage causes land degradation”**

**Key Research Findings:**

** Contributions to Project Management**
- Verifies and expands network of service sector/community agents involved in the project
  - Sampled networks have internal and external legitimacy as innovation networks
  - Farmers and service providers recognize individuals they identified present in workshops and research
  - Statistically generated snowball sample based on farmer and service provider responses
- Encourages increased reflexivity in research process
  - Facilitated sessions allow researchers and project managers to reflect on their respective network roles
  - Places individual contributions in a broader context
  - Example: Role of the **jua kali** in developing mechanical implements for CA
- Informs and empowers project participants to address network conditions which they can control
  - Kite farmers decide to increase their efforts to reach more farmers to ensure access to quality information
- Encourages adaptive knowledge
  - Farmers better understand and are more supportive of CA than believed by service providers
- **Identify challenges to CA adoption and how local networks can be mobilized to resolve them**

**Research Outputs**
- Working paper on Agricultural Actors, Networks and Mindsets in East Africa
- Four Community-specific network brochures
- Four Community Network Workshops
- Presentations at the International Congress of Rural Sociology (Lisbon, Portugal) and Rural Sociology Society (Chicago, IL) Annual Meetings
- Two papers submitted for publication

For more information or a copy of the working paper, please contact: Jennifer Lamb at jenlamb@mgmail.com or Keith Moore at keithmoorevt.edu.