Trip Report: India
22-26 March 2010

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Purpose of Trip:
1. Preliminary meeting to establish contacts with SANREM-SMARTS project local partners- Agragamee and Orissa University of Agricultural Technology.
2. Visit project sites at Bhubaneshwar.
3. Meet with Agragamee (local NGO) team members and hold discussions on project implementation and administrative issues.
4. Gather some preliminary information on the existing agricultural practices and farm conditions, meet with farmers and their families and hold discussions.

Sites Visited:
1. OUAT, Bhubaneshwar.
2. Agragamee, Rayagada, Bhubaneshwar
3. Local Village and Field visits at Rayagada:
   i. Brahmarjuri, Kashipur Block, Raygada District
   ii. Rasijhiri, Kashipur Block, Raygada District
   iii. Gunnar, Koraput Block, Raygada District
   iv. Marchiguda, Koraput Block, Raygada District

Description of Activities
The UHM team members spent four days in Orissa, India (March 22 to March 26, 2010) participating in the following activities at the following locations:
1. OUAT Bhubaneshwar
   • Main purpose of the visit was to meet with the OUAT, Dean of Agriculture, local team members of the SANREM-SMARTS project- Dr P.K. Mahapatra, the lead scientist Dr. P.K Roul, Dr. S.N Dash and Dr. K.N Mishra and other team members of the SANREM-SMARTS project as well as other senior professors from the Department of Agronomy.
   • Important documents and approvals required by OUAT from the Government of Orissa and support documents from UHM to participate in the research project were shared by the Dean.
• Discussions were held with the OUAT members. The lead scientist, Dr Roul of the SANREM-SMARTS project OUAT gave a presentation on the team’s visit to the local villages and shared preliminary findings on the local field conditions and farming practices.
• Preliminary CAPS design by the OUAT team members was shared. Clarifications were made on the budget, intended trips to UHM by the OUAT team for training and workshops and project resources available to the local fellows.
• The visit to OUAT also gave an opportunity to visit their campus and lab facilities to conduct soil and plant analysis for the project. The OUAT lab facilities were found to be quite satisfactory.

2. Agragamee, Rayagada, Bhubaneshwar
• This is the local NGO collaborating with UHM to implement SANREM-SMARTS project in four villages in South Orissa.
• The trip gave an opportunity to meet the Director of the NGO, Mr. Achyuth Das and project coordinator Mrs. Vidhya Das as well as their administrative and field staff.
• Meetings were held with the Director and Project coordinator on project implementation and administrative issues and other logistics. Suggestions put forward by Agragamee on the CAPS design and implementation strategies were noted by the UHM team members.
• A meeting with local farmers and Agragamee field staff members was held and preliminary information on farmers’ perceptions and attitudes regarding their existing agricultural practices and livelihood challenges were shared. Most farmers are marginalized, with small sized farms or landless. They are illiterate without much understanding of the market. Because of this they have only limited bargaining power. Also the remoteness of their villages and poor infrastructural facilities and resources scope of value added markets seemed limited at present. They continue to engage in traditional agricultural practices as well as traditionally grown crops for subsistence and cash. However they do have some understanding of the proposed CAPS and expressed willingness to participate in the project.
• Stay for the UHM team was arranged within the NGO campus which was comfortable and quite pleasant. The campus was equipped with necessary communication facilities such as telephones and internet wireless services.

3. Local Village and Field visits
• The UHM team visited the four villages identified for implementing CAPS as part of the SANREM-SMARTS project. The farmers who have agreed to participate in the project showed their farm plots and shared their experiences. Most farm sites visited were left fallow for a year or more. Some plots had fruit trees planted (e.g. mangoes) and some cash crops (e.g. Semiaruba). Most plots also had mulch covering the soil although the soil appeared very dry and stony in most sites. Most of the upland sites are rain fed. The farm topography differs among the four villages but most of them grow similar crops and follow similar cropping systems such as mixed farming etc. Some farm sites had fencing, usually with lantana camera which is a thorny invasive species and fairly successful in keeping cattle away, but some did not. Those without fences had issues with free grazing cattle. Some sites were not fenced but because of the physical location of the farm, it was not accessible by cattle. The farm visits also gave the UHM team to visit the villages and interact with the women and men of the village. People from the communities that we visited seemed very receptive and are developing expectations from the presence of SANREM in their locations.
**Suggestions and Recommendations**

- Follow up on all administrative aspects of the project needs to be completed. This includes getting the necessary approval and forming formal agreements to enable the smooth implementation of the project.
- It is also recommended to take all necessary vaccinations particularly malaria as these regions are malaria prone.
- For additional information and images please refer the attached power point slides in Appendix.

**List of Contacts Made:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Organization</th>
<th>Contact Info (address, phone, email)</th>
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</thead>
<tbody>
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Appendix 1

SANREM-SMARTS
UH-Team Visit
March 22\textsuperscript{nd} – March 26\textsuperscript{th}

Prof. Catherine Chan-Halbrendt
&
Jyotsna Krishnakumar
Visit at OUAT

Welcomed by the Dean of Agriculture College-OUAT
With OUAT Team
In Dongar III:
Contour Bunding, Berch Terracing, Contour Farming i.e growing crops across the slopes. Mixed and Interplanting. Cereals include Sorghum, Finger millet, Rap. etc. Legumes include Arhar, Red beans, Cow Peas, Urad Dal. Oil seeds include Castor, Nigers.
Mixed Cropping controlled includes Interplanting in a specific alignment and strip Cropping in alternating manner. It includes 2 dissimilar crops in two strips. Strip 1: Maize (broadcast), an open canopy crop, allows direct water input and when flowing down checked by the second crop in strip 2. This is cow peas (broadcast as a closed canopy crop) and it checks the water run off. The width of the strips depends on the steepness of the land.
Paired cropping: with minimum space. Legumes with Millet.
In Dongar III and Valley Bottom: Rice and Vegetables but woodland required.
OUAT Campus and their Lab Facilities
GOLDEN JUBILEE HERBAL GARDEN

Maintained by:
C.S.S.N.H.M.M.A.P. (GOI)
DEPT. OF HORTICULTURE, C.A.O.UAT
BHUBANESWAR

Sponsored by:
D.S.A.D. CALICUT, KERALA
ANALYTICAL LABORATORY
FOR SECONDARY NUTRIENTS
ANALYTICAL LABORATORY FOR MICRONUTRIENTS
LABORATORY

ALL INDIA COORDINATED RESEARCH PROJECT
ON
MICRO-SECONDARY NUTRIENTS AND POLLUTANT ELEMENTS IN SOILS AND PLANTS
Agragamee
March 23rd-March 25th
Landscape-on the way to Agragamee
Lowland Paddy cultivation
Way to Agragamee and glimpses of the campus
Organic farming practices at Agragamee
Khadi making unit at Agragamee
Meeting with farmers at Agragamee’s training center
A CAPS design suggested by Vidhya

- Perennial trees: Acacias, Albizia Lebbeck, Dalbergia Sissoo
- Green fence: Plantana
- Perennial Income: Mangoes, Cashew, Sinaruba, Hikes
- Generating trees
- Contour row plants: Sunhemp, Cowpea, etc.
- Legumes
- Millets: Various types

4 Village + 10 farmers, experimental plots limited to 2 plots, each 0.9 acre. Production - all plots included. Village tech will keep monthly record.
From Agragamee...

**Selection Criteria:**
1. Farmers with tenured land (exception- Gunnar)
2. Rainfed Area
3. Feasibility- based on quality of land.

**CAPS conditions:**
1. No chemical fertilizer as the entire zone is declared an organic farming zone.
2. No pesticide and herbicide
3. Use of bio-pesticide preferred
4. Use vermi-composte and other traditional manure as there are good substitutes for P&K.
5. Organic inputs as defined by Indian traditional farming systems
(PS: Organic CAPS has been tried and successful. Reference provided by Vidhya- Miguel Altiri & Stephen Gleesman).

**Concerns:**
- Clarity of Roles — Agragamee’s role (eg: Local Mobilization), UH Role etc.
- How to provide support to the remaining farmers to bring up their land potential as part of CAPS up-scaling?
Village Visit -1
Brahmarjuri, Kashipur Block, Raygada Dist.
View of the commons land managed by the Women’s group. 30 women manage 25 acres of land.
Display board showing activities accomplished by the Women’s Group

Phoolmati- President of the Women’s group.
Potential farm site I.
Potential farm site II
Potential farm site III
Village Visit -2
Rasijhiri, Kashipur Block, Raygada Dist.
(150 families)
You can see a typical social map (your right) and a resource map (your left) painted on the wall.
Back yard of a house with some vegetables and the shed for cattle on the right.
Different types of fencing. On the left is the more common fencing using Lantana Camara (an invasive species in this region)
Low land irrigated paddy fields
Potential farm site I
Traditional irrigation systems
Potential farm site II
Potential farm site III
Mixed cropping – Maize and vegetables

Below right-Low and short duration paddy
Village Visit -3
Gunnar, Koraput Block, Raygada Dist.
One the way to Gunnar.
Villages once perhaps
looked like this

Now looks like this…
Corporate plunder!
Reforestation efforts by the same mining company in the previous slide.

Housing provided by them.
At Gunnar

I think she is the President of the Gunnar Women’s group.
A Health Map of the village

A faded resource and social map of the village
Farm site II
A meeting at the village with the village folks along with the Agragamee team
We got a lovely farewell from the women of the village.

(Pls. check video)
Village Visit -4
Marchiguda, Koraput Block, Raygada Dist.
Turmeric and Castor seeds kept for sun drying. On the bottom right is a storage facility.
Farm site 1
Farm site II
Slash and burn—on the way back to Agragamee. This is not in any of the villages we visited.
Return to Bhubaneswar on 25th night