



## Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program

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### 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- Agramee and Orissa University of Agricultural Technology.
2. Visit project sites at Bhubaneshwar.
3. Meet with Agramee (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. Agramee, Raygada, Bhubaneshwar
3. Local Village and Field visits at Raygada:
  - 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 OAUT 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. Agramee, Rayagada, Bhubaneswar
- 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 Agramee on the CAPS design and implementation strategies were noted by the UHM team members.
  - A meeting with local farmers and Agramee 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:**

<b>Name</b>	<b>Title/Organization</b>	<b>Contact Info (address, phone, email)</b>
Dr P.K. Mahapatra	Dean, Department of Agronomy College of Agriculture Orissa Agricultural University & Technology (OUAT)	Bhubaneswar 751 003 Orissa Tel.: 0674-2562211 <a href="mailto:prafulla_kumara@yahoo.co.in">prafulla_kumara@yahoo.co.in</a>
Dr Pravat Kumar Roul	Associate Professor, Department of Agronomy, College of Agriculture, OUAT	Bhubaneswar 751 003, Orissa Mb. 09937563162 Resi.: 0674-2563464 <a href="mailto:roulpvt@yahoo.com">roulpvt@yahoo.com</a>
Dr S.N Dash	Associate Professor, Department of Agronomy, College of Agriculture, OUAT	Bhubaneswar 751 003 Orissa
Dr K.N. Mishra	Associate Professor, Department of Agronomy, College of Agriculture, OUAT	Bhubaneswar 751 003 Orissa
Mr Achyuth Das	Director, Agramee	P.O Kashipur, Dist-Rayagada Orissa- 765015 India Tel: 91-6865-285174 <a href="mailto:agramee@satyam.net.in">agramee@satyam.net.in</a>
Mrs. Vidhya Das	Project Coordinator, Agramee	P.O Kashipur, Dist-Rayagada Orissa- 765015 India Tel: 91-6865-285174 <a href="mailto:agramee@satyam.net.in">agramee@satyam.net.in</a>

# Appendix 1

**SANREM-SMARTS**

**UH-Team Visit**

**March 22<sup>nd</sup> –March 26<sup>th</sup>**

**Prof. Catherine Chan-Halbrendt**

**&**

**Jyotsna Krishnakumar**

# Visit at OUAT



Welcomed by the Dean of  
Agriculture College-OUAT





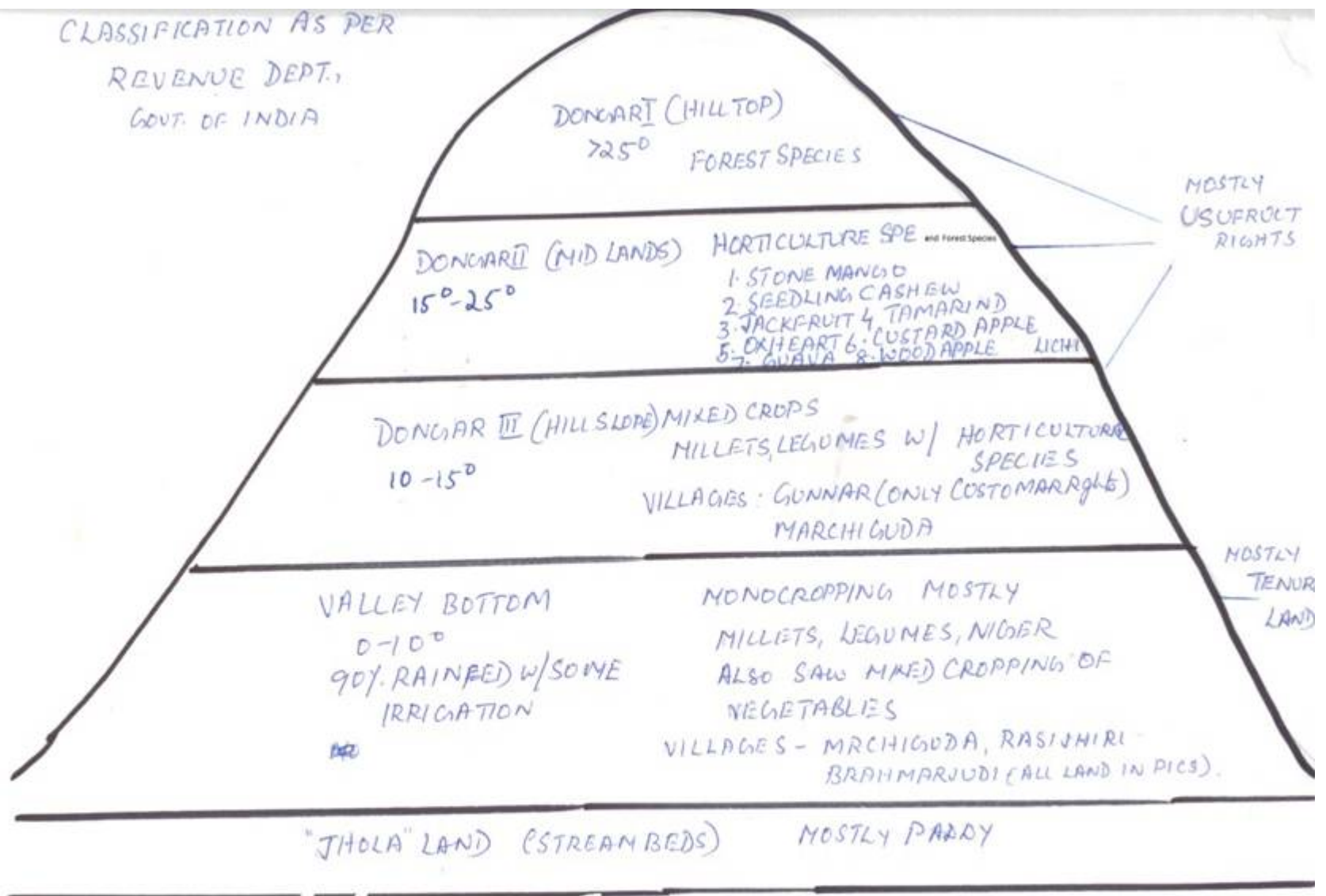


# With OUAT Team





CLASSIFICATION AS PER  
REVENUE DEPT.,  
GOVT. OF INDIA



In Dongar III-

Contour Bunding, Bench Terracing, Contour Farming i.e. growing crops across the slopes. Mixed and intercropping. Cereals include (Sorghum, Finger millet-Ragi etc.) Legumes include (Arhar, Rice beans, Cow Pea, Urad Dal). Oil Seeds include (Castor, Niger).

Mixed Cropping controlled includes Intercropping in a specific alignment and Strip Cropping in alternative manner. It includes 2 dissimilar crops in two strips. Strip I: Maize (broadcast, an open canopy crop, allows direct water input and when flowing down checked by the second crop in strip II. This is cow pea (broadcast as a closed canopy crop) and it checks the water run off. The width of the strip 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 would required

# Ouat Campus and their Lab Facilities











**DEPARTMENT OF**  
**SOIL SCIENCE AND AGRICULTURAL CHEMISTRY**

**O.U.A.T., BHUBANESWAR**

**AICRP ON SOIL TEST CROP RESPONSE CORRELATION STUDY**

**AICRP ON MICRO-SECONDARY AND POLLUTANT ELEMENTS**

**ADVANCED ANALYTICAL LABORATORY - NICHE AREA OF**

**EFFLUENCE-MANAGEMENT OF ACID SOILS**







**ANALYTICAL  
LABORATORY**  
*FOR*  
**SECONDARY  
NUTRIENTS**











ANALYTICAL  
LABORATORY  
FOR  
MICRONUTRIENTS





AICRP  
ON  
STCR PROJECT



AICRP  
ON  
MICROWAVE PROJECT



ATOMIC ABSORPTION  
LABORATORY





# **LABORATORY**

**ALL INDIA COORDINATED  
RESEARCH PROJECT  
ON**

**MICRO-SECONDARY NUTRIENTS AND  
POLLUTANT ELEMENTS IN SOILS AND PLANTS**

















Aragamee  
March 23<sup>rd</sup>-March 25<sup>th</sup>

# Landscape-on the way to Agragamee







# Lowland Paddy cultivation





# Way to Agragamee and glimpses of the campus



## Early Morning at Atragamee





# Organic farming practices at Agragamee



## Khadi making unit at Agragamee





# Meeting with farmers at Agragamee's training center



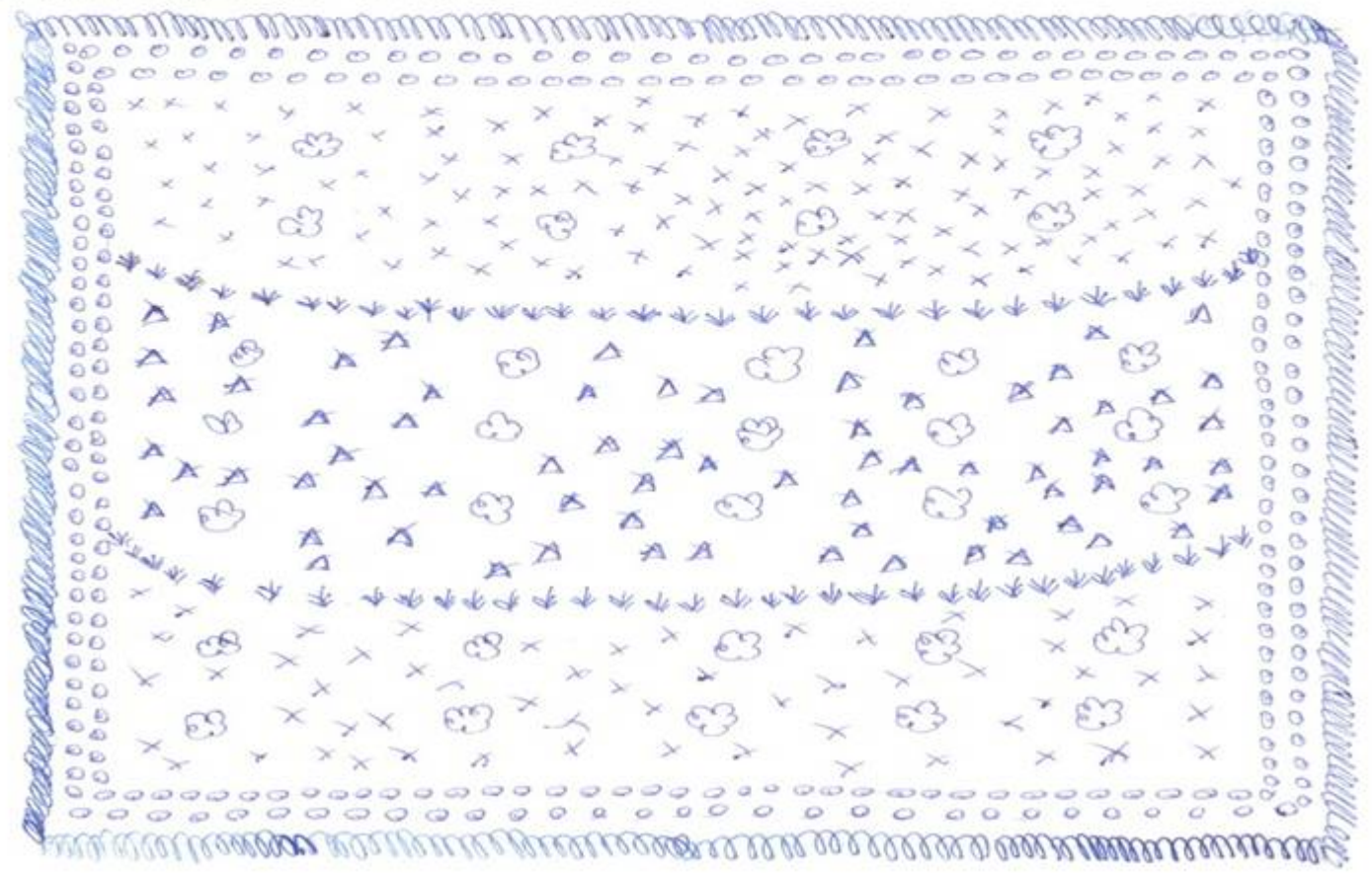
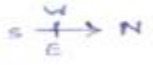


# A CAPS design suggested by Vidhya

SAMPLE CAPS DESIGN BY ADINACHANEE

- ooo - PERENNIAL TREES (ACACIAS, ALBIZIA LEBBECK, DALBERGIA SISSOD)
- ~~~~~ - GREEN FENCE (LANTANA)
- ☁ - PERENNIAL INCOME GENERATING TREES (MAGDES, CASHEW, SINARUBA, MIKE)
- \*~\*~\* - CONTOUR ROW PLANTS. (SUBABUL (used as fodder/firewood), GREEN/LINE CONTOUR BONDS) ALPVE, SUN HEMP  
↳ (fibre for rope)
- xxx - LEGUMES
- ddd - MILLETS > (COVER CROPS) VARIOUS TYPES

4 VILLAGE + 10 FARMERS. EXPERIMENTAL PLOTS LIMITED TO 2 PLOTS EACH PRODUCTION - ALL PLOTS INCLUDED. VILLAGE TECH WILL KEEP MONTHLY RECORD



## **From Agramee...**

### **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 – Agramee’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

Rasihiri, 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 1





Farm site II







A meeting at the village with the village folks along with the Agramee 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  
25<sup>th</sup> night

