

SHRISTI

Annual Report – 2011-12

Address

MESSAGE FROM THE EXECUTIVE DIRECTOR

This year SHRSITI has been involved mainly in Natural Resource Management issues with an aim to diversify livelihood opportunities and create a sustainable food security based for marginalized farmers in the tribal pockets of Orissa. As a common practice SHRSITI team always try to learn from its past experience and try to incorporate local knowledge and resources to make the development process most appropriate for a particular geographic location within Orissa.

SHRSITI has celebrated it's success in working with various national donors such as Ratan Tata , CEE and ICRISAT - Hyderabad where Organisation utilized it's mid level Professionals to develop sustainable livelihood strategies. The process was initiated with formation of farmers group, youth club, and women's group at village level institutes and involved them in developing capacity and implement sustainable livelihood projects.

SHRISTI has taken up a new initiative to raise issues like water conflict in Orissa. Number of trainings and workshops were organised to learn more about this new issue. It has been learnt and realized that water conflict is going to be more acute in future and therefore deeper understanding needs to be developed. Therefore SHRISTI research wings need to be more watchful about these issues.

SHRSITI cannot carry its ambitious work load without the commitment and hard work of its staff. In particular SHRISTI relies heavily of its Bhubaneswar academicians based finance and administration team, the field team in five districts . I am personally grateful to each and every one of them for their willingness to work in remote areas with their health and security challenges. I feel deeply privileged to work with and be supported by such a stunning group of individuals from Orissa.

Overview:

SHRISTI is a nongovernmental developmental organization involved in natural resource management mostly in tribal and flood affected coastal areas in Orissa. SHRISTI was created by group of young professionals having work experience from government and non government organizations. Therefore SHRISTI has a multidisciplinary team with expertise in rural development particularly in sustainable agriculture, watershed development, and micro finance.

SHRISTI initiates women SHG and farmers clubs as a process to develop community based institutes as a foundation of development wherever project is implemented. Research and evaluation is a wing which tries to identify local resources to develop an appropriate technology. SHRISTI is also involved in increasing awareness on anti poverty programme and policy among tribal communities. SHRISTI has been always try to analyze the grassroots level problem and strengthen community based organizations and involved them in project implementation plan. SHRISTI walks along with people to create a a path for development of marginalized communities.

Operational Areas:

SHRISTI has developed a statewide network with various development organizations involved in various thematic areas and established contacts with the district administration and departments working in various ante poverty programme. SHRISTI has been involved directly in implementation of project in Keonjhar, Bhadrak , Mayurbhanj, Khurda and Denkanal.

Programme Areas:

1. Sustainable management of natural resources to create livelihoods opportunities,
2. Develop community based organization and capacity building on various thematic issues,
3. Action Research on livelihood issues to create grassroots innovation.

Strategies Adopted:

Promotion of community based organization involving women and men farmers, women self help groups to generate assets at local level, formation of forest protection committees and watershed committees to protect, preserve and regenerate local natural resources and initiate people oriented advocacy on natural resource management.

Vision:

To improve the quality of life by introducing sustainable livelihoods of disadvantaged communities in Orissa.

Mission:

- Establish and provide support in the establishment of the associations, Institutes, Society and trust for the benefit of local communities.
- Promote ways and means to encourage local organization and enterprises to develop their capacities and skills for providing services in economic and social sector.
- Promote appropriate technologies related to development, popularize their application in the field of agriculture and allied field.
- Venture into new and innovative developmental projects financed by government and donor agencies.

- Assist development agencies to find appropriate professionals for their projects and to assist persons interested in making a professional contribution to development agencies, where they may work on short or long term basis.
- Do planning and formulation of development projects independently or in association with other agencies

1. Sustainable management of Natural Resources

Promotion of Integrated Natural Resource Management (INRM) leading to sustainable livelihoods of poor families in Keonjhar



SHRISTI in collaboration with community based organizations has been involved in implementation of watershed project in Harichandanpur block of Keonjhar and Khunta block of Mayurbhanj district covering 3067 Ha land where people are involved in designing implementation plan. A broad range of activities are undertaken to manage the natural resources and increase food production among the target communities. As per SHRISTI's vision and Mission marginalized families are given priority and landless people benefited in terms of employment opportunity, value added process of forest products and income generation project. One of the project strategies was to attempt for

more efficient equitable self managed and sustainable exploitation of the locally available natural resources through off farm/non-farm enterprise development with an aim to improve food security. SHRISTI had series of meeting with local CBOs and other stakeholders to initiate the watershed project and finalize the micro plan.

The villagers were also involved in baseline survey to identify local resources and to develop implementation plan. Wide range of intervention such as Land Development, Soil Moisture Conservation, Production of Vermin Compost, Plantation, Scientific Agricultural Practices, Construction of Micro Dam, Life Fencing, Crop Diversifications, Promotion of various types of pulses and kitchen garden and backyard plantation were taken up in the project areas.

District	Block	No of village	Covered area in Ha
Keonjhar	Harichandanpur	15	2370
Mayurbhanj	Khunta	8	1697

Interventions under watershed are highlighted below;

- Local CBO developed plan for efficient use of rain water by reducing run off to prevent soil loss or erosion. Water harvesting structure was developed using appropriate technology like water harvesting tanks and recharging tanks for land development (bonding 30/40, 5% model etc). These structures were helpful to bring more dry land under cultivation with mixed cropping, inter-cropping, cashew plantation etc. **Altogether Tanks constructed in Keonjhar and In Mayurbhanj district .**
- Recharge tank with 5% of land plots have been constructed across the slope which checks soil erosion and helped in increasing moisture content and nutrient management. This has also helped to reduce the quantum and speed of rain water and reduce soil erosion. As a result moisture content increased leading to sustainability

of agriculture. Moreover in order to increase productivity among marginalized farmers SHRSITI has improved soil quality and re-excavated and restructured all existing dug wells, farm pond and field bonding are in the project areas with active participation of target communities.

Sl	Physical Structure	Keojhar	Mayurbhanj
1	Water harvesting tank		
2	Dug well	10	
3	Farm pond (5% land)	11	
4	Field bunding	10ha	

- Crop diversification was Initiated by introducing various pulses such as green gram, Bengal gram, Red Gram, new variety of paddy and SRI. The purpose was to initiate crop diversification and increase cropping intensity to increase agricultural productivity. These crops were introduced both in Khariff and Rabi season. New variety of paddy was taken up covering 30 acres of land and SRI in 12 acres of land in Khariff and 15 acres of land under SRI in Rabi seasons.

Sl	Crop Produced	Keonjhar	Mayurbhanj
1	Coverage in Kharif season		
2	Coverage in Rabi season		

- During the reporting year DCCD, Kochi and NHM provided support with cashew and Mango plants which was planted in the Sabai land as a process of intercropping. Apart from plantation in Sabai land, Glicidia was planted along the field bonding at Dabak and Mahuldihi. Blocks of Mayurbhanj
- Apart from watershed project areas, SHRISTI inducted cashew plantation in four blocks of Orissa and altogether 29 farmers were involved in this process (20 farmers from Harichandanpur, 5 farmers from Mayurbhanj and 4 from Denkanal). These farmers were trained and adopted scientific cultivation practices to improve the local practice using locally available resources, where they prepared hole using top soil, cow dung and dry leaves before plantation. Local farmers found useful to plant 200 cashew plants per hector. These farmers planted 35 hectors of land with support from SHRISTI.
- Vermi compost was very helpful for villagers with many nutrients than compost produced by a composing method. SHRISTI has been involved in promoting vermi compost among small farmers to initiate organic farming in back year plantation and to develop kitchen garden. This initiative helped in improving soil quality with micro organism and improved water holding capacity of agricultural land. This is a low cost method and reduces the overall production cost. Vermi composed training of trainer was organized to develop local trainers. Vermin compost in way helps to maintain the soil quality compare to other bio mass production system. So far men and women attended the training in Keonjhar and Mayurbhanj.
- At each district, farmers cultivated a wide variety of vegetable species for plant diversification. At the same time awareness was created among farmers about diverse range of arthropods and diseases on the various crops. Farmers were unaware about the identity and roles of many of the arthropods. Framers have also realized that use of chemical fertilizer will reduce the use of arthropods. With this intervention the average income was

increased around Rs 3000 – Rs 9000 out of backyard plantation. However, it was an appropriate model for tribal communities and this was also useful to improve quality of food with nutritious vegetable within the family.

No of families involved in backyard plantation..... in Keonjhar Mayurbhanj.

- Around 142 members from Farmer’s club in Harichandanpur block of Keonjhar district decided to adopt and promote SRI (System of Rice Intensification) in 3 villages. This process required less water, fertilizer and seeds as compare to traditional method of cultivation. District Agricultural Department in partnership with SHRISTI initiated the process in Harichandanpur block. This procedure was started with an exchanged visit for farmers, where they got a chance to interact with farmers who are already involved in SRI. This visit was helpful to witness SRI field and get the practical information about the system. After the exposure visit, farmers prepared their paddy land and initiated the SRI. Total areas covered under SRI cultivation technique.
- This year SHRISTI has been appointed by government to promote ATMA (Agricultural Technology Management Agency). SHRISTI promoted around 200 Hectors of land in Keonjhar district. The project process involved adopting bottom up planning procedures for setting the research and extension agency in order to make the technology dissemination farmer driven and farmer accountable. In this project a group of farmer identifies specific needs of a particular area. Local KVKs and the key line Departments of Agriculture, Animal Husbandry, Horticulture and Fisheries became close stakeholders and provided necessary support to the farmer’s group. After the experimentation farmers contribute at the district about the learning.
- Landless and small farmers are poorly equipped to take up agricultural activities in appropriate season. . They mainly depend on large farmers to borrow equipments for their own agricultural initiative. Landless and small farmers are in constant search for their livelihoods. They are unable to take agricultural activities because of they lack agricultural implements and not able to intervene in right time. Therefore SHRSITI has provided some equipment such as handweener and Pedal Thresher to the group of small farmers to facilitated agricultural intervention among small plot holders. The agricultural implements were purchased from department of agriculture. At present farmer’s club has been responsible to manage all equipments.

SL	Name of Implements	No	Purpose
1	Handweener	2	Cleaning
2	Pedal Thresher	2	Threshing
3	3.1HP Diesel pump set	2	Irrigation
4	Delivery pipe	500meter	Water harnessing through gravitational flow
5	Conoweeder	10	SRI
6	Marker	10	SRI

This year 94 persons from Keonjhar and Mayurbhanj districts started various types of vegetable cultivation in their backyard and front yard area. At the same time orientation was given for line sowing, space management, seed selection and layout from the Shristi. Farmers could earn around RS 9000 from 300 sq feet agricultural field.

2. Community based organization and capacity building on various thematic issues,

SHG formed by tribal women in the project areas:



SHRISTI follows its previous experience in developing self help groups at the project areas. Normally self help group is a small, informal, homogeneous and affinity group of people, voluntarily come together. They are socially and economically disadvantaged and therefore SHRISTI helped them to create an opportunity to have additional income to solve their food security needs and in the process they are directly or indirectly involved in managing the local natural resources.

SHG helps them economic and social conditions for themselves and their families through collective or individual action. Moreover small saving and involvement in development process also improve the social status of local women. In many villages assets created under watershed were handed over to SHG groups for proper management of those assets. Following table capture the economic status of the self help group.

List of Indicators	Keonjhar	Myurbhanj	Bhadrak	Dhenkanal
No of villages				
SHG				
Savings				
Member				
Linkages				
Investment				
Bank Balance				
Bank Repayment				



SHRISTI has encouraged these groups to take up income generation activities providing capacity building, established linkages with various department and hand holding support to explore marketing opportunity. Few examples are given below; Before initiating any new livelihood activities leadership training was organised with an emphasis on agricultural and entrepreneurship development and project implementation skills. Women were given exercise to understand and identify root causes of poverty and design solutions that maximize existing community resources in a sustainable manner. Each initiative creates new idea to make a profit generating

businesses that serve as models for growth among communities living in the project areas.

Government staffs from horticulture, OUAT, and watershed department were invited to take technical sessions on plantation. Field Technician from Horticulture department shared various scheme available under National Horticultural Mission. He provided various practical guidance to the farmers. All participants were very happy with these types of practical information. Several printing and electronic media participated in this meeting to highlight the promotion of scientific cultivation practices among the farmers in rural areas of Orissa. SHRISTI has also circulated booklet on Cashew plantation to all participants.

These groups have established collaboration with government SGSY for the production of mushroom, bricks, vegetables and groundnut to increase production to their food security need. Some of these groups have also mobilized resources

from agricultural departments and received bank loan. SHRISTI provided training on plantation and some of the SHGs have taken up Cashew and Mango plantation.

Some of the groups had extraordinarily successful business stories on mushroom production and Sal Leaf Plate.



Mushroom growing as a cottage industry is quite valid for the SHG women due to its low capital investment and high yields obtained even under controlled rural condition. The awareness for mushroom has been created among the general consuming public. Mushroom are good supplement for protein lacking diet and can be easily cultivated indoors and marketed profitably. With the support of ATMA, 12 SHG groups in Keonjhar have taken mushroom cultivation. These have produced around 72kg of mushroom and they are predicting that villagers can harvest more than 3 quintals in future. These groups have sold all mushroom at local market @

RS 100 / KG.

Sal leaf plate stitching unit -Salashree SHG federation from Harichandanpur block of Keonjhar district sold 4 trucks load of stitched plate during the reporting period and made a profit of RS-23,700 . A store-room was provided by the government. The Sal leaf stitching machine was provided by DRDA for pressing unit before December.

4 Women SHG members are involved poultry development in Rangamatia and Srirampur. They have received 800 Banaraj bird. Regular vaccination was done by the help of Veterinary Deptt.

Moreover 4 SHG groups in Harichandancpur were involved in preparation of pickles after getting training through SHRISTI. The product was sold by DRDA (govt). These groups sold almost 54 kg of pickle @ Rs 50 per kg.

SHG groups have also taken up several other business such as production of vermi compost, sabai business, backyard plantation, kitchen garden and ground nut cultivation.

3. Action Research -Create Grassroots Innovation.

3.1 Intervention in Flood Areas

SHRSITI initiated action research in flood prone Bhadrak district with an objective to reduced agricultural vulnerability among small and marginalized farmers in the flood affected areas. SHRISTI started this project as an experimental basis to work in Bhadrak district which is a flood and cyclone prone areas. The rivers in the district are characterized as deltaic river. All rivers are not protected by embankment therefore flood water used to ran in to the plain agricultural land. Embankment breach is also common because of heavy floods. As a result, sand casting of agricultural land became a major problem in rainy season. Sand casted land is not suitable for cultivation. Many other agricultural problems are faced by local farmers because of floods and water logged situation. At the same time flood water also make agricultural field fertile and therefore SHRISTI has taken up following activities on pilot basis.

In post flood situation farmers in coastal areas have taken up various vegetables cropping which provided immediate livelihood rehabilitation to the affected communities. Farmers also can compensate their loss of KHARIF paddy. Both SHRISTI and the farmer's groups jointly developed vegetable in two flood affected villages where SHRISTI provided bore well and subsidized seeds which was provided by government in post flood situation. At the same time, women SHG members were introduced for SGSY support to take up poultry , mushroom cultivation as well as marketing to enhance income.

Fodder scarcity is very common in the flood and drought prone areas of Orissa. Fodder price was very high after flood in coastal areas. Marginalized farmer was not able to access fodder in flood affected areas, as a result distress sale of domestic cattle became only option. Dr A.K.Mishra, Scientist from Women in Agriculture, ICAR, Bhubaneswar imparted the training on fodder preservation. The process of conserving green fodder is known as HAY. HAY is a process of fodder produced by the controlled fermentation of a crop of high moisture content. HAY is assuming ever increasing importance in the feeding of livestock, especially, because of escalating price of concentrate fodder. The HAY is normally

used as fodder by villagers a good feed to tide over flood and drought situation. Preserving the fodder in HAY and SAILAGE methods is used in the rainy season/flood periods. With the co-operation of women in Agriculture department (ICAR) people are conserving their fodder as HAY and SAILAGE methods for using it in the rainy/flood season/period.

Plantation in the flood prone areas will control the runoff and prevent river bank erosion. Therefore SHRIST has taken up plantation through SHGs and Farmer's club in flood prone areas of Bhadrak district.

Plantation in the river bank was initiated involving local farmers to conserve land. Farmers have also taken up gap filling plantation in the coastal areas and around 15 ha land was brought under plantation with 3000 plans in two villages

Vermi compost and other bio mass production system introduced to maintain land quality. SHRISTI introduced conservation of INSITU moisture among small farmers to start cropping immediately after the paddy crop. Land leveling and de-siltation of sand casting land was done to control the flood in agricultural fields and to initiate cultivation. Continuous cropping was also introduced to reduce soil vulnerability to erosion for farmers holding degraded land. SHRISTI has created some local trainers who provided training to complete 30 Vermi compost units in Bhadrak district.

One check dam was constructed to protect 63 acres agricultural land from sand casting. The size of the check dam is 112ft X 8ft X 5ft on khola nala of Changua village. One guard wall was constructed and vegetative measures taken for protecting the dam. Moreover a new flood resistant paddy crop– Swarna Sabuan which produce yield within 145 days. This was promoted in collaboration with KBK Bhadrak for 15 acres.

After construction of check dam and other conservation measures more than 200 acres of land are now protected from recurring flash floods. Cultivation of ground nut after sand removal from the land increased income significantly. Farmers are now interested to cultivate groundnut rather than Paddy in the flood effected area/land. Out of 500ha flood affected area different conservation methods was adopted in 200 acres has been undertaken. 200 acres of land are converted to crop land which was vacant/barren due to frequent floods and lack of proper drainage.

3.2 Intervention in Water Sector

Central Secretary, Kerala State Resource Centre and Orissa State Resource Centre supported a project focusing on "Understanding Conflicts to Resolving Conflicts' by the Forum for Policy Dialogue on Water Conflicts in India. It was a short project from 1st October – 31st Dec 2010. A brief description is given below on SHRSIT'sl participated in this process as a state nodal agencies

Water conflicts on the Google map

SHRSITI prepared a Google map highlighting the conflict case. This was done by the state level Forum where each conflict case was documented with it's geographical location. This information was also uploaded in website. There was space in the website where readers could also contribute cases which can be also located on the map with some preliminary checking.

Combined meeting with Arghyam and WaterAid

There was a combined meeting of the Forum, Arghyam and WaterAid in Arghyam office. This meeting was primarily organized to discuss the areas of collaboration as forum had submitted a proposal to WaterAid to function as a knowledge partner to the Right to Water initiative of WaterAid. Arghyam presented the report on conflict prepared by the Forum. One of the important issues raised during the discussions was about Forum's role in the right to water movement and whether the Forum is going to narrow down its focus. It was explained that Forum's role would be limited to articulating the content of right to water and also taking up capacity building and consensus building around these issues and would not be in the forefront of this. However SHRSITI needs to have much deeper understanding on the issues.

All assets created in the project villages have been maintaining by the SHGs and farmers groups. People are contributing a user fee which is managed by the SHGs. SHGs and Farmers groups had also established collaboration with government SGSY for the production of mushroom, bricks, vegetables and groundnut to increase production as an additional income. So far 11 SHGs in three villages are strengthened and developed a fund of 4, 12,586 for mobilizing credit among members. At the same time, farmers groups are contributing towards Bore well activities by digging the bore on their own. Community approach on vegetables growing by using groundwater will be a good intervention to protect the crop from monkey menace.

SHRISTI could achieve all those activities

1. NABARD – Odisha Regional Office: in 4 villages of Harichandanpur block of Keonjhar District
2. NAVAJBAI RATAN TATA TRUST in 15 villages of Kunta Block Mayurbhanj
3. ICRISAT – Hyderabad in 8 villages of Bhadrak
4. Centre for Environment and UNDP small Grant programme
5. ICAR Women in Agriculture
6. Krishi Vikash Kendra in Keonjhar , Mayurbhanj , Bhadrak
7. District Rural Development Agency