



Orissa Tribal Empowerment and Livelihoods Programme (OTELP)

Annual Progress Report : 2010-11



Empowering People, Assuring Livelihoods



Contents

Introduction	1
Programme Area and Communities	3
Institutional Framework for Implementation of the Programme	5
Capacity Building for Empowerment	7
Livelihoods Enhancement	15
Community Infrastructure Fund and Development Initiatives Fund	51
Supports for Policy Initiatives	55
Food Handling	57
Programme Management	58
OTELP Plus	62

Introduction

The Orissa Tribal Empowerment and Livelihoods Programme (OTELP) is being implemented by the Scheduled Tribe & Scheduled Caste Development Department of Govt. of Orissa with financial assistance from the DFID, IFAD and the WFP. The programme aims *to ensure that livelihoods and food security of poor tribal household are sustainably improved through promoting a more efficient equitable self managed and sustainable exploitation of the Natural Resources at their disposal and through off farm/non-farm enterprise development.*

To achieve the above goal, the Programme sets the objectives to:

- build the capacity of marginal groups as individual and grass root institution.
- enhance the access of poor tribal people to land water and forest and increase the productivity of these resources in environmentally sustainable and socially equitable ways;
- encourage and facilitate off-farm enterprise development focused on the needs of poor tribal households;
- monitor the basic food entitlements of tribal households and ensure their access to public food supplies;
- strengthen the institutional capacity of government agencies, Panchayati Raj Institutions, NGOs and civil society to work effectively on a participatory mode for poverty reduction with tribal communities;
- encourage the development of a pro-tribal enabling environment through ensuring that legislation governing control of and access to, development resources by poor tribal households is implemented effectively and recommending other policy improvements; and
- build on the indigenous knowledge and values of tribal and blend these with technological innovations to ensure a speedier pace of development.

The programme is being implemented in 3 phases. The Phase I of the programme was completed in 2007. The implementation of Phase II was started from 2008 based on the recommendations of the Phase I Mid Term Review Mission conducted during September, 2006. For the both the phases, Hon'ble Chief Minister of Orissa Sri Naveen Pattnaik launched the programme on 2nd October 2004 and 27th March 2007 respectively. Phase II Mid Term Review Mission fielded by IFAD during October 2010 and recommended to move up to the Phase III of implementation from April 2011 till end of the programme (March 2013). Currently the programme is in Phase III of implementation.

Phase	Duration	Closing Date
Phase I	Three Years	March, 2007
Phase II	Four Years	March, 2011
Phase III	Two Years	March 2013

The programme has adopted strategic partnership with the village organizations constituted by the primary stakeholders for implementation of programme activities and with Non Govt. Organizations for providing facilitation and capacity Building inputs to the primary stakeholders and Village communities. Govt. plays a supportive role in strengthening the community institutions and NGOs for smooth implementation of the programme.

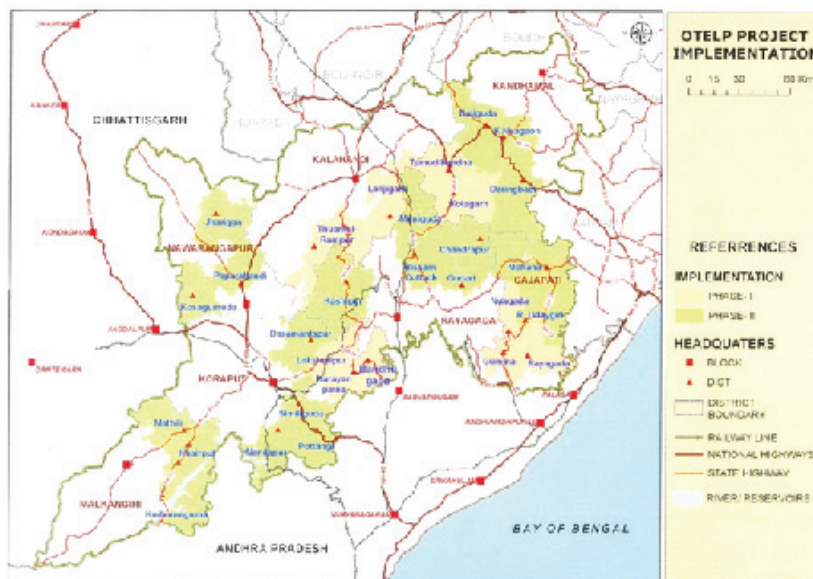
The programme adopts an integrated micro watershed management approach covering a cluster of 10 to 12 micro watersheds situated contagiously with an approximate area of 500 ha per micro watershed. It is also taken care during the selection of the micro watersheds that the boundary of one set of 10-12 micro watersheds are coterminous with the Gram Panchayat. The programme has adopted a seven year project cycle management which is further divided into three distinct phases. The initial two years are called probation phase, next three years are called main implementation phase and the last two years of the programme is called consolidation phase/ withdrawal phase.

Probation Phase	Main Implementation Phase	Consolidation Phase
Initial Two Years	Middle Three years	Last Two Years
<ul style="list-style-type: none"> • Organization of Communities • Institution Building and establishment of participatory processes • Participatory Planning • Capacity Building for implementation and record keeping 	<ul style="list-style-type: none"> • Execution of the village development plan • Natural Resource Management and Livelihoods Interventions • Skill Up-gradation Training • Demonstrations, Exposures • Credit Linkage, Micro Enterprise 	<ul style="list-style-type: none"> • Gradual Withdrawal of project • Implementation of Sustainability Strategy • Capacity Building for management of community assets • Management of village development fund • Convergence

The programme thrusts upon the development of livelihoods of the poor tribal people based on their natural resource and skill base. The livelihood profile of the poor communities in the programme areas covers different activities; like wage employment, Agriculture, Sale of Forest Produces, Migration etc. and the intensity of dependence on the above are different based on the family economic status. However the programme constantly tries to improve each section of the livelihood option of the poor by creating maximum opportunities for wage employment for the poor people, where the people get direct cash and grain income from the wage employment and vis-à-vis created community assets for conservation and development of Natural Resources. The food security, which used to be for about 4 to 6 months per year, has improved due to direct intervention in creating wage employment opportunities and providing food for grains as part of the wage, which directly impacts the food availability at the household level. Besides, efforts have been made for improving the production system at the village level in promoting sustainable agriculture, trying out innovations in Aquaculture, and improving the quality of life through community infrastructure and development initiatives.

Programme Area and Communities

The programme is being implemented in 30 backward blocks of seven districts of south west Orissa namely Koraput, Kalahandi, Gajapati, Kandhamal, Malkanagiri, Nawrangpur and Rayagada. This implementation programme has been made in a phased manner. 10 blocks in 4 districts have been taken up in Phase I, covering 19481 households in 390 villages in Koraput, Kalahandi, Gajapati and Kandhamal districts. From January 2008, Phase II operations have started in additional 9 blocks of the above districts along with additional micro watershed in the Phase I blocks of Kalahandi district.



Map of South-West Odisha with programme locations

The total coverage in Phase-II areas of above districts are 9 Blocks covering 15129 Households living in 328 villages. The Phase-II operation in new districts namely Nawrangpur, Malkanagiri and Rayagada started from January 2009 in 11 Blocks covering 21570 Households in 316 villages. The details of the area targeted under the programme are as follows:

District	ITDA	MWS	Village	Area taken up (in Ha.)
Koraput	Koraput	70	215	35482.47
Gajapati	Paralakhemundi	60	163	31939.24
Kandhamal	Baliguda	59	172	25902.25
Kalahandi	Th. Rampur	59	168	25800.00
Nawrangpur	Nawrangpur	30	51	15420.64
Malkanagiri	Malkanagiri	30	83	15804.00
Rayagada	Gunupur	50	182	25019.68
	TOTAL	358	1034	175368.00

2.1 Demographic Profile

The programme targets 255661 people out of which half of the population are women. 75% of these populations are schedule tribe. The major tribes included under the programme are Soura, Lanjia Soura, Konda, Kutia Kondha, Paraja, Bonda, Bhumija and Koya. Out of the above tribal Lanjia Soura, Kutia Kondha and Bonda are the particularly vulnerable tribal groups (PVTG). Besides, tribal population, the programme also targets 15% of scheduled caste population and 10% of other backward class (OBC) population living in the programme areas.

District	Total Male	Total Female	ST Male	ST Female	SC Male	SC Female	Others Male	Others Female
Koraput	28826	29296	20803	20892	2826	2733	5197	5671
Gajapati	18333	18542	18090	18276	229	254	14	12
Kandhamal	16428	16486	10585	10789	4561	4494	1282	1203
Kalahandi	13864	14216	10306	10930	2909	2671	649	615
Nawrangpur	22372	22287	14190	13874	2530	2458	5652	5955
Malkanagiri	9123	8788	7637	7405	568	540	918	843
Rayagada	19033	18067	13555	13155	5478	4912	0	0
Total	127979	127682	95166	95321	19101	18062	13712	14299

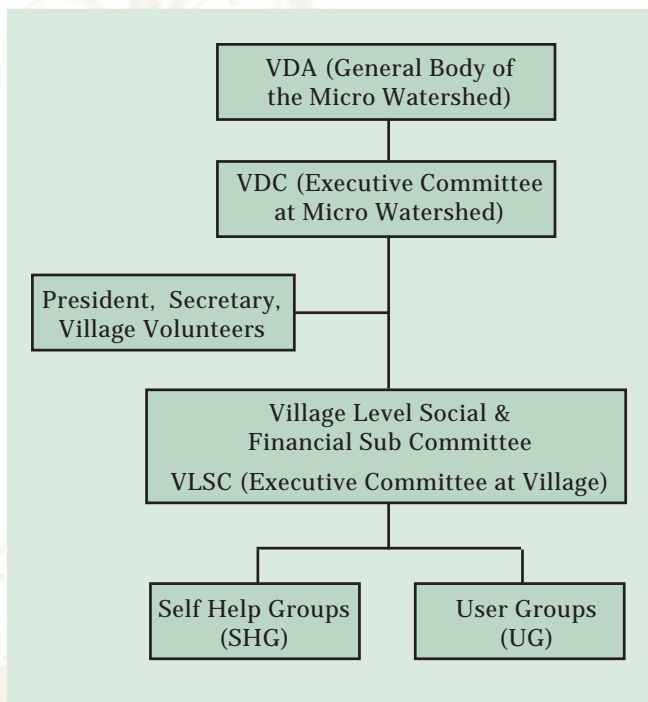
Incidence of poverty is very acute in the programme locations. The poverty derived from the programmes view point is the landlessness and access to assets. 56% of the targeted families live below poverty line as per the government records. However, in reality, the situations of all the families are even similar. Tribal economies are based on the agriculture and forests. For agriculture land is the most essential asset for production. In the programme area more than 80% of the families have less than one standard hectre land holding. Nevertheless, 21% of targeted family's situation is even worst as they do not posses any land. Livelihoods improvement of these families are key challenges before the programme. The following table depicts the district wise figure on absolute landless and BPL families.

District	Total Households	Landless Households	BPL Households
Koraput	14455	3183	11267
Gajapati	6949	1620	4575
Baliguda	7064	873	1616
Th. Rampur	6142	1506	4804
Nawrangpur	10024	2295	4451
Malkanagiri	4126	1062	2703
Rayagada	7420	1113	2274
Total	56180	11652	31690

Institutional Framework for Implementation of the Programme

The programme adopts a public private -community partnership approach in implementation of the programme. In this PPCP mode, government has taken the role of providing technical assistance and support, where the NGOs play the role of facilitator in capacitating the community and their institutions for planning, implementation, monitoring and governance. Community being the primary stakeholders (beneficiary) of the programme plays the role of implementor. They directly plan, execute and monitor the programme activities through their institutions like Self Help Group (SHG), User Group (UG) and Common Interest Group (CIG). The following table depicts the key roles of each category of stakeholders involved in the process of project implementation.

Stake Holders	Role & Responsibilities
Government	Technical Assistance and Support
NGO	Facilitation for planning, technology transfer, capacity building, handholding support for implementation.
Community	Planning, implementation, monitoring & evaluation, governance, documentation.



Micro watershed development approach as the basis for development of livelihood has been adopted as the framework of implementation. The programme adopts the institutional modalities prescribed by the MoRD, GoI, to ensure proper alignment of the programme with mainstream development programme. Thus, at the micro watershed level (cluster of two to three villages) Village Development Associations (VDA) are constituted. All the adult members of the villages (more particularly the voters) living in the villages located within the micro watershed are the members of the VDA. This VDC is registered under the societies act 1860. The VDA has further

constituted a committee called Village Development Committees (VDC), which is the executive body of the VDA. This committee holds 15 to 20 members comprising of the representatives from all the villages within the micro watershed.

These representatives are either selected or elected from existing village based organizations such as Self Help Group (SHG), User Group (UG), and Traditional Institutions. The VDC has 50% women representation and representation of the marginalised groups like landless, disabled, widow etc. The VDC selects one President and one Secretary among the member

Parameters	Phase-I	Phase-II	
		Phase-I Dist	Phase-II Dist
No. of VDCs formed and Registered	135	113	110
No. of VLSCs formed	390	328	289
No. of Village Level Social & Financial Audit Sub Committee formed	390	328	289
% of Women Members in the VDCs	50.13	52.39	50.28
% of ST Members in the VDCs	85.57	88.81	80.46
% of Landless Members in the VDCs	16.33	13.32	19.26
Average attendance in the meetings Men	62.18	84.30	81
Average attendance in the meetings Women	58.08	84.83	72

(Source: Project MIS, 2011)

who works as office bearers. They look into the day to day affair regarding implementation of the programme, accounts keeping etc. For better implementation of the programme, the VDC selects five youths from their villages who work as village volunteers. They work as community resource person in five areas of livelihoods promotion i.e. Agriculture, Livestock, Land & Water, Book Keeping and Social Mobilization. These village volunteers are trained in their respective subject areas to provide support services to the primary stake holders. For further decentralisation of the process, Village Level Sub Committee (VLSC) has been formed in each village within a micro watershed. The VLSCs are responsible for planning and implementation of programme activities in their respective villages. They work under the overall coordination of the VDC and work as a subcommittee to deliver the responsibilities of VDC in their villages. For a better governance and delivery system, the responsibilities of the social audit of the activities implemented in the programme villages are given to Palli Sabha of the respective village. This is a recognised village institution which undertakes social and financial audit of the programme implementation. Under OTELP, this Palli Sabha has been given the title of Village Level Social and Financial Audit Sub Committee. The programme promotes the monthly meeting of Palli Sabha (VSFASC) in each village which reviews the implementation progress.

Capacity Building for Empowerment

The programme focus is to build the capacity of the primary stakeholders. They are primarily responsible for planning and execution of work under the programme. About 85% of total budget of the programme is under the work component, which is transferred to grass-root level institutes to execute the planned activities. The staff of FNGO and ITDA play a supportive role to facilitate the communities to ensure timely implementation of the programme.

Experiences and lessons gathered during implementation of programme in Phase I villages, has broadened the understanding of the facilitators to adopt a strategic approach under Capacity Building component of the programme. The Capacity Building Strategy document prepared with the assistance of external consultant underlines the strength of the CBOs and village level volunteers, who are the key factors for successful implementation of OTELP. The Process Guideline prepared under the programme also stipulates dedicated



Land survey training

phase of 2 years for Community Mobilisation for effective grounding of the programme. Adequate Community Mobilisation programme / events, formation / strengthening of existing institutions are the focused interventions during the probation phase. There is a standardized Community Mobilization framework covering activities such as theme based street play, video show, sensitization workshop, health camp, animal health camp, wall painting, observation of important days, high lighting the issues of community based development etc. to increase motivation for improving community participation in implementation of programme. Number of trainings on institution building, participatory development processes, leadership, conflict management, issues relating to equity and gender mainstreaming, book keeping and accounts management, convergence, collective marketing etc. are also covered in the package of Community Empowerment and Management.

4.1 Community Empowerment & Management

The inputs under Community Empowerment and Management have been identified as most significant contribution to ensure community participation in development process. The success of the OTELP entirely depends upon the knowledge, skill, abilities etc of the members of the communities and their ownership in effective implementation of programme. High level of motivation and commitment of the community members for effective programme implementation has been developed during the initial phases of programme implementation by organising different sensitisation camps, trainings, exposure visits and through interaction

with other communities, who has practiced the same earlier. Varied inputs on institution building, good governance, participatory processes, Community Property Resource Management, Tribal rights issues, Convergence etc. are also ensured during the initial phases of programme implementation to ensure quality participation with empowered responsibilities.

Based upon experiences and lessons learnt during implementation of programme in past years, Community Mobilization framework was formulated.

The interventions taken up under the Community Empowerment and Management are as below:

4.1.1 Entry Point Activity

To gain the confidence of the people and to establish the credibility of the programme in the initial days of programme implementation, small works such as renovation of tube well platform, excavation of Chuan for drinking water, smokeless stove, Solar lantern, sitting platform, small meeting hall etc. which are immediate concern for the communities, have been constructed. Rupees 50,000/- (approx.) have been earmarked under EPA for each MWS. It is proposed that small work, as per request of the villagers should be taken up in each programme village of the respective MWS. These activities are scheduled to be completed during first six months of programme implementation. However, this year all the EPA activities in the Phase II programme districts were completed.

Phase	No. of EPA completed in 2010-11	Cumulative Total upto March'2011
Koraput	0	211
Paralakhemundi	0	92
Baliguda	2	145
Kalahandi	20	454
Nawarangpur	3	84
Malakanagiri	0	179
Gunpur	0	178
Total	34	1343

4.1.2 Community Mobilisation & Empowerment

This is an area where the focus was given in two segments. First is to make the community aware regarding their entitlements, which will subsequently create a demand for services. And the second is to improve their capability in implementing the programme as well as other developmental programmes. Thus, to create awareness, series of community mobilization activities have been taken up on various development issues including the different schemes/ provisions of Govt. and other non govt. organizations. Villagers have been oriented on the expected benefit of these mainstream



Community meeting in progress

organizations. Villagers have been oriented on the expected benefit of these mainstream

programmes. Training programmes on tribal rights were organized to sensitize them on their responsibilities to avail the entitled benefits. Similarly, series of human health camps, veterinary camps etc. have been organized. Strengthening of existing SHGs and formation of new SHGs with the left over households was prioritized with campaign mode. Community members were facilitated to draw up the village development and livelihoods plan. Training/ sensitization meetings on land right issues (OPLE, OGLS, FRA, Vasundhara etc.) have been organized for all the programme villages. Villagers are also mobilized on the advantages of convergence with the PRIs to ensure continued support from different schemes. Need based exposure visits have been organized at different places for comprehensive understanding.

Similarly, to increase their capability to manage the implementation of the programme, various community institutions created such as SHG, VDC, VLSC, VSS etc. were also trained on the areas of leadership, group dynamics, accounts, organization management, managing convergence. The details of the training programmes and other events conducted for during the period are presented in the adjoining table.

Activities	Cumulative training/ events organized in 2010-11	Cumulative Total
Community Mobilization Camps (Health Camp/ Awareness Camp/ Animal Health Camp/ Video Shows/ Cultural Programmes/ wall writing etc.	707	4087
Training Programme for SHGs (Leadership, Group Dynamics, Accounts, organizational Management etc	588	3784
Training Programme VDCs/ VLSC/ UG (Leadership, Accounts, organizational management, Tribal Rights, Convergence etc.)	649	4271
Total		

4.2 Skill Development of Beneficiaries

Livelihood of the poor is primarily dependent on their skill base. They work as labour particularly in primary sector like agriculture for food production and employment. Besides, they work as unskilled labour in other construction works. The programme has adopted the strategy for adding new skill and upgrading the existing skill of primary stake holders so as to meet demand employment demand in the local areas. Capacity building inputs under this sub-component include trainings, exposures, demonstration etc. to upgrade the skills of beneficiaries (primary stakeholders) for execution of different activities under the production enhancement components (L&W, Agri, Horti, Pisci-culture, PFM, CIF etc.) and income generating activities (RFS) etc. Skill based trainings, exposures, demonstrations etc. are being designed based on the activity plan proposed by the communities under Annual Work Plan and Budget. Capacity Building inputs



on field training to farmers

under this component will be mostly covered during implementation phase (3-5 yrs) of programme cycle. Different resource institutes/ organizations and resource persons have been contracted / tied up to take up capacity building activities under different thematic areas as identified jointly by the staff from ITDA and FNGOs. The Resource Centers like Soil Conservation Training Institute, Govt. of Orissa, Central Soil and Water

Activities	Cumulative Training / Exposures 2010-11	Cumulative Total
Training and exposure on low cost measures under Land & Water Management	252	921
Training and exposure on improved practices of Agri / Horti / PFM	379	1378
Training and exposure on improved rearing practices for Livestock & Aquaculture Development	189	791
Training and exposure on preparation of business plan and implementation of Non Farm Activities Development	194	1078
Skill Development Vocational Training to Youth	128	133
Total		

Conservation Research and Training Institute, ICAR, Semiliguda, Regional Research Technology Transfer Station, (RRTTS), OUAT, Semiliguda, Koraput, Krushi Vigyan Kendras, OUAT, Community Level Resource Centers (OWDM) and other private owned training institutes were tied up with OTELP programme districts. Besides, Resource Persons from local NGOs and line department has been augmented regularly. The various training programme conducted during 2010-11 are presented in the above table.

4.2.1 Skill Development Training for Rural and Landless Youth in OTELP, Orissa, India

About 40% of the targeted population under the programme are youth (age group between 15 to 35 years). They are either employed in the agriculture during the season or works as casual labour in the unorganised sector locally. Non availability of skill and relevant information on employment makes this productive age group unemployed or underemployed. With subsistence income from agriculture from their degraded land and marginal farming, produces from forest and occasional income from wage engagement are the means of living for most of these families. As much as 28% of these families don't own a piece of land, either for homestead or for agriculture. The government defines landless as a family without having one standard acre of agriculture land. In recent years, some of these families have been settled in forest land (which they were cultivating) under the Forest Rights Act 2006.



Vocational Training in progress

Under the sub component of skill up-gradation of the primary stakeholders the programme has targeted the youth (15-35 years) to create human resource for the future. Advance agricultural as well as vocational trainings are provided in order to attract the youth be self employed. This was adopted to reduce the incidence of migration during lean seasons. The basic purpose to upgrade the skills of tribal youths in various short/long term vocational courses depending upon their educational qualification, present economic trends and the market potential. This will enable them to gain suitable employment or to become self

Sl No	Trade	No. of total rural youth given training		No. of Landless youth given training	
		Men	Women	Men	Women
1	Advanced Commercial Agriculture	1744	955	0	0
2	Grafting and Nursery Management	1825	983	584	315
3	Livestock Para-vet Support Services	306	73	306	73
4	Barefoot Engineering for Land & Water Management	403	149	101	37
5	Livestock based farm models	809	1296	453	726
6	Micro Enterprise/ Business Development	1269	1691	444	998
7	Masonry	458	180	229	90
8	Seed Production and Storage	40	29	0	0
9	Vermi Compost	232	160	0	0
10	Hill Broom Binding	22	62	6	16
11	Mushroom Cultivation	75	182	0	0
12	NTFP Processing and Value Addition	269	869	54	435
13	Bee Keeping	239	454	143	272
14	Bamboo Craft	75	56	75	56
15	Construction of Smokeless Stove	40	141	40	141
16	Tailoring	0	42	0	42
17	Solar Light Assembling & repairing	0	26	0	26
18	Candle Making	0	40	0	40
19	Leaf Plate Making	38	376	38	376
20	Welding	10	0	10	0
21	Carpentry	36	0	36	0
22	Plumbing	55	0	55	0
	TOTAL	7945	7764	2574	3643

employed. Keeping in view of the emerging need to address the unemployment issue and help the youths to tune up their skill, it was planned to train all the unemployed youths in OTELP areas in vocational training in phased manner. The strategy has been further concentrated for the youths from the landless families to provide them skill development trainings on various trades like Masonry, Gardener, Grafting, Beekeeping, Mushroom production, Mother Chick Unit & Backyard Poultry, Pisciculture, Housekeeping, Hotel Management, Tractor & Power tiller and 4 wheeler driving, Mobile repair, Computer Training, Welding, Lathe, Tailoring, Plumbing, Welding, Carpentry, Weaving etc. Many of these youths are now gainfully self-employed locally and in some nearby townships. The details of the training programmes conducted for the rural youth and landless youth are given in the following table (2006-2011). All these skilful training programmes are conducted in OTELP districts through the convergence with other dept. & organizations like ST & SC Development Department (ITDA), DRDA, ORMAS, Ramakrishna Mission etc. Besides PSU has taken initiative to train all unemployed youths from OTELP areas in association with Khadi Village Industries Commission, Odisha State Employment Mission and ST & SC Development Department (through OSFDC) through various employable vocational training.

4.3 Capacity Building of Support Agencies

FNGO and Govt. are the key players plays facilitation role in the process of programme implementation of the programme. It is essential to keep these staff updated in their respective subjects for ensuring better facilitation by them to the primary stakeholders. Besides, regular orientation and training on programme perspective, participatory development etc. are essential to make these staff understand the concept of the programme, its implementation processes, objectives and expected outcomes. The PSU has organised number of exposure visit for staff of ITDA and FNGO to WOTR, MANAGE, ICRISAT, MYRADA, WASSAN, BAIF, JSLPS and other Grassroots Institutes for different thematic aspects of programme components. Exposure to the old programme villages were organised to ensure proper



Training on gender in progress

Activities	Cumulative Training, Exposures / person trained 2010-11	Cumulative Total
No. of Trainings on Skill Development for FNGO staff	50	219
No. of training on Community Mobilization and Empowerment & SHGs for FNGO Staff	48	169
Training for line Dept. Staffs / Support Organizations	23	63

understanding of the modalities of community driven implementation of the programme. Training programme on various cross cutting subjects such as, Communication, Micro Level Planning, Gender Mainstreaming, Knowledge Management etc for the staff of ITDAs

and FNGOs were also organised by the PSU in regular intervals. The details of training organised during last one year of time period to various facilitating agencies are given in the above table.

The PSU has also organised training programmes on various technical subjects, policy issues as well as also facilitated the district team to organise similar training programmes. Training on FRA to the staff of FNGO and other village volunteers were imparted by PA, ITDA/ Sub Collectors in their respective block headquarters. The trainees, in turn took up sensitization training on FRA act at the community level with the facilitation support of FNGOs associated in implementation of OTELP.

Further, the support of Technical Expert has been rendered to the ITDAs with the financial assistance from ICRISAT to provide day to day hand holding support on agricultural development. PSU has developed different module and manuals on Book Keeping for SHGs, Gender, Communication, MLP, Land & Water Management etc with the support of PST. The details of the training organised by the PSU are presented in the table below:

Specialized training programmes for programme staff, FNGOs, ITDAs and Community level Volunteers were organized on various aspects of improved agriculture as follows:

- Improved Agro Techniques on Tuber crops at Regional Centre, CTCRI (ICAR), Bhubaneswar.
- Improved Agro techniques in cultivation of Maize, Raagi, Miner Millets, Turmeric, Ginger, Off Season Tomato, Bean, Cashew crop at OUAT, Bhubaneswar.
- Production Technology in SRI & Improved Agriculture Techniques of Rice in Rainfed Situation at CRRI (ICAR), Cuttack.
- Improved Agro techniques in cultivation of Mango, Banana & Papeya and production of quality planting materials at Central Horticulture Experiment Station (ICAR), Bhubaneswar.
- Training Programme on Land & Water Management in Micro Watersheds at Water & Land Management Institute, Dept. of Water Resources, Cuttack
- Training Programme on Soil and Water Conservation, Agro-forestry and Watershed Management for Improving Tribal Livelihood and Food Security at Central Soil & Water Conservation Research and Training Institute(ICAR), Koraput

Besides, the PSU had organized international exposure visit to Srilanka, Philipines on land & Water Management innovative practices & sloping agriculture land technology (SALT) with a special focus on stabilization of shifting cultivation respectively. PSU organized exposure visit to Jharkhand Livelihood Promotion Society areas for successful Drip Irrigation based Vegetable Cultivation, KVK Mayurbhanj on Mother Chick Unit and Backyard Poultry, KASAM Bandhagada for establishment of Turmeric Processing Plant, BAIF areas for successful WADI programme, PRADAN areas of Rayagada for Diversion based Irrigation. The WADI areas were also visited by Commissioner cum Secretary & Chairperson, OTELP, Director, ST & SC Development Dept. and Collectors of three different districts i.e. Koraput, Malkanagiri, Gajapati for replication of similar models in OTELP areas.

Training Programme for WDTs and SMSs ITDA	No of trainings organized
Induction Training Programme for ITDA / WDTs	4
Training on Communication and issues relating to Convergence	3
Training on Micro level planning	3
Training on Gender Mainstreaming	5
Training on Participatory Monitoring	2
Training on Log frame revision	2
Training on farm Management at MANAGE, Hyderabad	1
Training on Watershed Management at WOTR	1
Training on Documentation & Communication	1
Training on Agriculture / Horticulture	3
Training on Collective Marketing	8
Training on Specialised Agriculture, Horticulture	8
Training on Soil & water Conservation, Agro-forestry, Watershed Management	1
Workshop on Finalisation of Impact Assessment Report	1
Workshop on final dissemination of Impact Assessment and Exit Strategy report	1
Training on Integrated NRM	1
Training on GIS Application	1
Exit Strategy implementation plan workshop	1
Climate Change Workshop	1
Training on Backyard Poultry (CPDO & KVK Semiliguda)	10
Training on L & WM (WALMI & CSWCRTI)	2
Vocational Training (MDTC, KVIC)	1
Workshop on Secure Land Rights for the tribes in schedules areas	1

(Source: Project MIS, 2011)

Livelihoods Enhancement

5.1 Land & Water Management

The livelihood enhancement component of the programme addresses issues on poverty reduction, alternative livelihoods as the way to help and encourage people dependent on natural resources. Understanding how and why rural people change their income generating activities is the key to developing effective strategies to support the targeted beneficiaries. However, the strategies adopted are understood by the beneficiaries and they assist the process with the objective of ensuring sustainability. The factors to be taken care of are too complex, ranging from the relative low productivity of the local area, to levels of risk, security and education, as well as the nature of local production, markets and demand. Systematic approaches to identify and promote alternative incomes have commenced. It is important that these approaches recognize that change in rural livelihoods is not so much a periodic phenomenon but an ongoing process. It is clear that both general development programmes and targeted support for the poor can pave the way for the poor to help themselves get out of poverty.

The livelihood basket of the poor is partly filled in by wage income, subsistence agriculture and forest. Thus effort has been made during the year to invest upon these resources which not only provide immediate wage employment but also improve these resources resulting in improved income in the long run along with ecological balance. With a food security of about 4 to 6 months per year, it is an ongoing effort to provide income in terms of cash and food grain resulting in improved availability of food and purchasing power.

Highest investment has been made in this sub-component for development of land & water resources within the micro watershed. This sub-component aims to increase rainwater use efficiency, reduce run off and soil loss and increase water availability through improved surface and ground water development & management.

The various activities under the sub-component include mechanical structures like land development (bonding, land levelling, terracing, trenches, etc.) and creation of water harvesting & recharging structures (check dam, diversion wire with field channel, farm pond, percolation tank etc.). These structures have been supported by biological measures like growing of cover crops, mixed cropping, inter-cropping, mixed plantation etc.

5.1.1 Conservation of shifting cultivation patch

Shifting cultivation in the hill slopes of the programme area is abundant. Tribal people with marginal land holding depend upon this for cultivating food crops particularly minor millets

to meet their food requirements. Continuous practice since generations degraded these lands and also affects lands at lower catchment. Increase in population has also reducing the podu cycle to three to five years causing further degradation of these lands and also reduce the productivity of the crops cultivated. During the programme intervention, various mechanical measures like Stone Bunds, staggered trenches, continuous trenches and water absorption trench are created to reduce the run off velocity and soil loss from those patches. The details of the above activities during 2010-11 and since inception of programme are presented in the table below.

Sl No	Activity	2010 - 11		Cumulative up to 2010 - 11	
		Rmt.	in ha.	Rmt.	in ha.
1	Mechanical Filter Strip/ Stone Bunding	31725	74	1229575	3069
2	Trench (CCT/ SCT)	2790350	2877	3060195	3327
3	Water Absorption Trench	17315	87	40191	201
	TOTAL:	2839390	3038	4329961	6597



Damaging effect in lower catchment



Conservation of shifting cultivation patches through stone bunds



5.1.2 Drainage line treatment

The topography of the programme villages is hilly and undulating. Instant runoff during rain passes through numerous first and second order streams causing severe erosion of the stream beds. These erode sand, stone, pebbles etc. damaging low laying fields. Hectares of paddy cultivated during kharif (Rainy) season are affected due to sand casting caused by flash floods. This not only damages the crop for the season but also the farmer losses his/ her family labour to reclaim the land, where women from the family suffers most. These low lands over the stream bed are about 10-12% of the total cultivable land, which are most productive in nature. The tribal families mainly depend upon this land to grow paddy for meeting their food requirement.

The programme adopted interventions to treat these first and second order streams through various activities like Retaining Wall/ Guard Wall, Gully Control Structures, Brush Wood Check Dam etc. in series, to minimise the crop damage at the lower patches. These treatments across these streams, retain sand, stone, pebbles, silts etc. flowing from the podu areas and deposit in the gully beds. This effort stabilises gullies, increase the base flow and flow duration. At the same time, new lands are created across the stream bed and sustain vegetative growth. The paddy crops cultivated in the lower patches are saved and also get water during moisture stress conditions during rainy season.



Gully Control measure ensures vegetative growth



Series of gully plugs at Pustiguda (Satellite picture from Google earth)



LBS in series



Considerable increase in water source with LBS

Sl. No.	INTERVENTIONS	UNIT	2010-11	Cumulative up to 2010-11
1	Retaining Wall/ Guard Wall - Dry	Rmt	105	1013
2	Retaining Wall/ Guard Wall - Masonry	Rmt	70	7511
3	Gully Control Structure (Earthen Gully Plug/ LBS/ LBCD)	No	17190	62565
4	Masonry Drop Structure/ Masonry Gully Plugging	No	653	705
5	Nalla Bank Stabilisation/ Stream Bank Erosion Control	Rmt	0	134
6	Brush Wood Check Dam	No	0	3142
7	Waterway	No	0	121

5.1.3 Development of cultivable land

About 65% of the cultivable lands in the programme area are high land and 20% are medium land. Tribal people cultivate Paddy, Niger, Millets, Maize and Mustard etc. in these lands. The productivity of these lands is poor as most of these lands are unbunded. The farmers cultivate in these lands with a high risk due to erratic rainfall, soil loss, nutrient deficiencies, lack of irrigation etc., resulting in poor crop husbandry by them. The farmers get about 25-30% of their income from these lands, which are more than 80% of the total cultivated land in OTELP villages. Besides, crops grown in these patches are cash crops and also content nutritional values, it is important to treat these lands to increase its productivity.



Ongoing 30 x 40 model land development work



Field bunding

The programme has facilitated the farmers to construct bunds and 30 x 40 models, terraces, leveling of these lands to retain fertile top soil and moisture. The farmers are also facilitated to grow some crops over the bund to stabilise these and in return get some income. Now farmers are also facilitated to produce compost and use it as fertiliser in these lands to increase productivity. The details of the interventions made for development of these lands are given in the table.

Sl. No.	INTERVENTIONS	UNIT	2010-11	Cumulative up to 2010-11
1	Earthen Bund/ Filed Bund/ Contour Bond	Ha.	595	4024
2	Terracing – Earthen	Ha	6	55
3	Terracing – Stone	Ha	0	593
4	Land Leveling	Ha	25	496

5.1.4 Water Resources Development



Water Harvesting Structures



Farm pond



Contour canal



Contour and Staggered Trench

All the medium and high land in the programme areas are non-irrigated and solely depend upon the rainfall for cultivation. There are number of perennial streams available in these locations and also the area receives annual rainfall of 1400 mm or more. However, the rainfall is highly erratic and the number of rainy days per year is decreasing gradually. This is resulting in uncertainty of crop production and yield. To mitigate the situation, rain water conservation and utilisation of water from perennial streams during stress period with prolonged dry spell in kharif has been adopted as a strategy by the programme. As part of this strategy various types of water bodies are created along with irrigation structures. Water bodies are to provide protective irrigation during kharif. The irrigations structures such as diversion wires, check dam, canal etc. are constructed/ renovated to ensure protective irrigation during kharif and

also support post rain crops cultivated by farmers. These interventions are resulted in increase in cropping intensity and volume of production. There are evidences of crop diversification and improved cropping practices due to additional irrigation facility.

Sl. No.	Activity	Unit	2010-11	Cumulative up to 2010-11
1	Percolation Tank/ Sunken Pond	No	29	71
2	Farm Pond	No	118	296
3	Water Harvesting Structure (WHS)/ Irrigation Tank	No	37	343
4	Diversion Weir	No	11	122
5	Check Dam	No	32	325
6	Field Canal/ Earthen Canal	Rmt	13538	41831
7	Masonry Canal	Rmt	963	70054
8	Well (Dug/ Shallow/ Open)	No	254	314
9	River lift irrigation project	No	1	3
10	Gravity Flow Irrigation Structure	No	4	43
11	5% Corner Pit	No	1686	2184
12	Chuan/ Water hole	No	5	98
13	Repair of Check Dam	No	2	8
14	Repair of Irrigation Tank/ WHS/ Well	No	1	60
16	Renovation of canal/ extension of canal	Rmt	0	20220
17	Renovation of diversion weir	No.	1	22
18	Gravity Fed piped water supply (irrigation& domestic use)	No	31	61

5.1.5 Biological Measures

Each mechanical structure created through land & water management component are supported by biological measures during the initial year of creation to ensure structure stability and sustainability. This also increases the effectiveness of the mechanical structures along with additional income to the farmers. Cover crops, improved cropping practices, plantation of pineapple, legumes, mango etc. have been promoted to ensure bund stability and additional income. Promotion of horticulture species in degraded lands have also been promoted to reduce the soil erosion on these lands supported with stone bunds, trench etc. and to provide the livelihoods to the poorest of the poor families. Besides, mixed tree plantations have been taken up in the shifting cultivation lands.



Pine apple in hill slope as biological measure

Sl. No.	Activity	Unit	2010-11	Cumulative up to 2010-11
1	Cover Crop (Pulses/ Oil Seeds/ Vegetables/ Tuber Crops/ Green Manuring/ Fodder)	Ha	8	1559
2	Avenue plantation	Km	62	90
3	Bund/ Contour Plantation	Rmt	165496	637096
4	Plantation of Horticulture Species Area	Ha	557	2941
5	Mixed Plantation Area	Ha	102	2442
6	Bamboo Plantation Area	Ha	0	221

5.1.6 Outcomes and Impacts: Land & Water Management

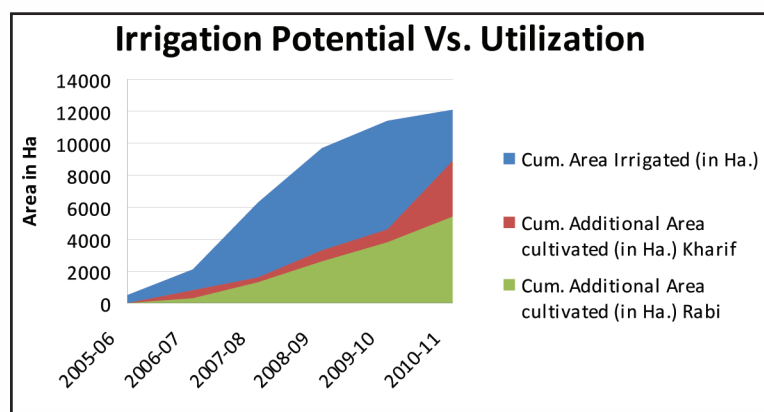
- a. Conversion of Non Arable land to Arable Land:** Nearly 4754 ha. of non-arable land were converted to arable land, benefiting 7473 households. These lands have been brought under improved cultivation by these farmers after the development. These are mostly medium and high lands. In these additional cultivable areas, farmers are growing maize, niger, paddy, millets etc. and their income has increased.

Particulars	2010 -11	Cumulative up to 2010 - 11
Non Arable to Arable (in Ha)	575	4754
Households Benefited	1571	7473

(Source: Project MIS, 2011)

- a. Additional Irrigation Support:** Through creation of various water bodies and irrigation canals additional area are brought under cultivation along with providing protective irrigation as per the requirement during the kharif season. It is observed from the adjoining table that a total of 12058 ha. of irrigation potential have been created in the programme areas. Out of the above area, during dry spells of kharif season, beneficiary farmers utilised 73 % of the total potential. However, in rabi season, about 45 % of the total potentials are used for cultivating second crop. It is to note here that, during the rabi season, the potential of 12058 ha reduces about 50%. Therefore, the potential used during rabi season is 90%.

Year	Cum. Area Irrigated (in Ha.)	Cum. Additional Area Cultivated (in Ha.)	
		Kharif	Rabi
2005-06	464	25	2
2006-07	2126	768	272
2007-08	6308	1639	1350
2008-09	9746	3306	2621
2009-10	11425	4592	3826
2010-11	12058	8862	5419



About 14505 families have been benefited out these additional irrigations by saving their crop during kharif and also taking second crop during rabi. The

distribution of the additional area irrigated and families benefited are presented in the adjoining table.

Particulars	2010 -11	Cumulative up to 2010 - 11
Additional Area Irrigated (in Ha.)	633	12058
Households benefited due to additional irrigation	1248	14505

- b. Increased water availability:** The scarcity of water during the dry spells of kharif and after kharif was affecting the agriculture cropping in the programme areas particularly in high lands. This also impacts the domestic need of the people for drinking, bathing and other purposes. Programme through its interventions of stone bund, gully control structures, trenches, land development activities etc. helps in reducing the run off velocity of surface water and provides more opportunity time for infiltration. As a result, there are evidences of increase in ground water table, increase in stream flow and increase in flow duration of the streams in different micro watersheds areas.



Series of Gully Control structures created across streams. Evidence of seasonal streams becoming perennial (corner photo)



Staggered trenches increases moisture availability for orchards created to support poorest of the poor families

The programme has taken up studies in selected micro watershed adopting local methods (measuring the water depth in open wells) and eye estimate (as experienced by communities) for calculating above parameters. It has experienced that there are about

1 meter of increase of water tables in open wells after five years of implementation in the Phase I programme area. Similarly, the stream flow has been increased by two to three months per year. There are evidences from programme area of Kalahandi district that there are seasonal streams becoming perennial, ensuring increased water availability.

c. Convergence with MGNREGA

• ITDA Balliguda:

Different mechanical structures (Staggered contour trenches, loose boulder structures etc) have been done in 34 villages of Tumudibandh block during Khariff 2010 through the convergence of MNREGA. Rs. 6.62 lakh has been spent and 7355 man days have been created.

• ITDA Koraput:

Sanction of Rs. 55.23 lakh has been made for treatment of lands in 238 ha covering 214 beneficiaries in 3 blocks of Koraput during Khariff 2010. Work is under progress. So far expenditure of Rs. 75,000/- has already been made.

• ITDA Paralakhemundi:

Work on land development (terracing, renovation of tank etc) are continuing in all the programme areas of 6 FNGOs in Gajapati district during current financial area. So far Rs18 lakh has been spent and 14,016 mandays created.

5.2 Participatory Forest Management

Forest is an important resource for the poor tribals. They earn income from it by collecting the NTFPs and other roots, herbs, shrubs etc and also for supplementing the food basket. The programme has facilitated the villagers residing near by the forests to organize them into Vana Sangrakhyana Samiti (VSS) to implement the Participatory Forest Management activities. In association with the State Forest & Environment Department, OTELP field functionaries have organized VSS and facilitated the forest dwellers in preparation of the forest micro plan. The VSS as a part of the VDC received funds from the VDC and implement

Particulars	No
No. of VSS formed	430
Proposed Forest Area protected	42960 ha
Forest area for effective treatment	18231 ha
Forest area protected for natural regeneration	24729 Ha
No. of Forest Development Micro Plans prepared	226
No. of forest development micro plan approved	226
VSS Members Trained	333
Average Income from NTFP per household	Rs.1100/- to Rs. 2500/-
Average person days engagement per household per year.	50 days

(Source: Project MIS, 2010)

the forest development activities in their adjoining forest for about 80 ha besides protecting 120 ha of forests, thus accounting for a total of 200ha of forest area. The initial investments under the component have been made by taking up gap filling plantation in degraded forest patches. The focus of the programme this year to provide capacity building support to these VSS in management of the forest. Protection for regeneration of the forest is the key solution being promoted by the programme. The Details of the progress made under the complement is presented in the above table.

5.3 Production System Enhancement

5.3.1 Agriculture and Horticulture Development

5.3.1.1 Key activities through programme initiatives

System of Rice Intensification:

Many farmers in programme areas have felt that SRI method of rice cultivation is superior to conventional method of rice cultivation. SRI is one of the methods of sustainable agriculture that reduces agro-inputs, conserves water, improves soil structure and crop yield. The progress under SRI demonstration programme during Kharif, 2011 is as follows:

ITDA	Area (Ha)	Beneficiary (no)	Remark
Gunupur	20.0	83	Under convergence
Paralakhemundi	30.0	65	Under convergence
Th. Rampur	26.5	55	Under convergence
Nawarangpur	52.0	99	Under convergence
Malkangiri	10.0	35	-
Koraput	26.0	96	-
Balliguda	28.0	107	-
Total	192.5	540	

Vermi compost unit:

52 units (Malkangiri 30 + Balliguda 22) have already been established.

Growing of improved variety of Turmeric:

200 families have taken up Turmeric (var Lakadong) which has percentage of curcumin in an area of 10 acres (4 ha) in K. Nuagoan block of Kandhamal district through facilitation of FNGO PRADAN.

Vegetable cultivation:

There is a programme of vegetable demonstration programme in an area of 111.6 ha (Gunupur 12.64 + Nawarangpur 29.0 + Balliguda 69.0) covering 934 farmers in Gunupur, Nawarangpur and Balliguda ITDAs during Kharif, 2011.

Backyard Plantation:

21,200 horticultural seedling / grafts (papaya, drumstick, mango and k. lime) have been planted in 2650 Households covering 44 villages in Nawarangpur district. Besides there is a programme of distributing mango and K. Lime grafts / seedlings to 12100 Households in Kandhamal districts.

Growing of improved varieties of tuber crops:

There is a programme of Cassava demonstration in an area of 3.4 ha (8.5 acres) in 40 villages covering 68 farmers in Gunupur ITDA. Planting materials have already been arranged from Regional Center, CTCRI, Bhubaneswar.

Seed Replacement by high yielding certified seeds:**Paddy:**

ITDA	No. of Farmers	Purchase of improved varieties certified paddy seeds (Qtl)	Area replaced with improved varieties of certified paddy seeds (Ha)
Koraput phase II areas	138	41.4	69.0
Nawarangpur	1542	370.0	617.0
Gunupur	728	218.0	313.0
Total	3608	629.4	1049.0

Ragi:

ITDA	No. of Farmers	Purchase of improved varieties certified paddy seeds (Qtl)	Area replaced with improved varieties of certified paddy seeds (Ha)
Koraput phase II areas	45	1.80	18.00

5.3.1.2 Specialised Interventions under Agriculture and Horticulture Promotion

IFAD 954 ICRISAT Project

IFAD Grant No. 954 ICRISAT project has started from 2007-08 Rabi season & will be completed during December, 2011.

a. Progress during 2010-11 Rabi season :

The total Groundnut (var ICGV91114) seeds produced from an area of 8.48 ha under informal seed production programme is 11,040 kg, out of which 8300 kg seeds have been consumed/sold by the farmers and rest 2,740 kg have been used during 2011-12 Rainy season.

Besides, total chickpea (vars JGK 1, JGK 2, ICC37 & JG 11) seeds produced from an area of 4.55 ha under informal seed production programme is 5228 kg, out of which 3711 kg seeds have been consumed/sold by the farmers and rest 1517 kg have been kept for the use during 2011-12 post rainy season.

Pigeon Pea: Intercropping of Asha (ICPL87119) var. of pigeon pea with ragi in an area of 4.0 ha . Asha (ICPL87119) var. of pigeon pea with maize in an area of 4 ha and Kamica (ICP 7035) var. of pigeon pea with ragi in an area of 4.0 ha have been taken up by 72 farmers in 29 villages of four programme districts. These intercropping systems are covered under informal seed production programme, following one variety in one village concept, with 500 m of isolation. The pigeon pea crop has been harvested during January and February 2011 The average yield of 762 kg pigeon pea (var Asha) & 756 kg ragi per ha was obtained. in Pigeon pea (var asha) +Ragi inter cropping system Similarly the average yield of 780 kg pigeon pea (var kamica) & 740 kg ragi per ha was recorded in Pigeon pea (var kamica) +Ragi inter cropping system. Besides, the average yield of 825 kg pigeon pea (var asha) & 1793 kg maize per ha was received in Pigeon pea (var asha) +maize inter cropping system.

Four varieties of chickpea namely JG 11(desi) , ICC37 (desi) , JGK 2(kabuli) & KAK 2 (kabuli) were tested in 30 villages covering 33 farmers in 18 blocks in four programme districts under Farmers Participatory Variety Selection (FPVS) trials . The yield per ha in case of JG 11 var. ranged from 1037-1280kg (average 1193 kg), 940-1540 kg(ave 1295 kg) in case of ICC37 var, 960-1350 kg (ave 1222 kg) in case of JGK 2 var and 915-1430 kg (average 1234 kg) in case of KAK 2 var. The highest yield of 1540 kg per ha in case of ICC 37 var & 1280 kg in case of JG11 were obtained in Koraput district. Similarly the highest yield of 1350 kg per ha in case of JGK 2 was obtained in Gajapati district. The highest yield of 1430 kg per ha in case of KAK-2 was obtained in Kalahandi district

122 farm women from 28 SHGs of 4 operational districts availed Rs 80,000/- as credit for purchase of inputs required for informal seed production of groundnut and pigeon pea

33 numbers of farmers training programme covering 989 beneficiaries (male 600 + female 389) in ICM, seed production and post harvest technology in legumes were organized in Gajapati, Kalahandi & Kandhamal programme areas. Similarly, 25 field days covering 1583

farmers and farm women were conducted at the podding stage of the crops in Gajapati, Koraput, Kalahandi and Kandhamal districts.

45 SHGs members have been trained through Facilitating NGO to prepare neem leaf extract, pot manure (organic manure) & Vermi composting for use in legumes in 4 programme districts.

2 Agriculture Officers, 4 WDTs Agriculture and 10 farmers made an exposure visit to ICRISAT, Hyderabad from 15-17th March, 2011.

292 soil samples from phase II areas of Koraput, Kalahandi, Kandhamal and Gajapati districts were sent to ICRISAT during June, 2010 for analysis of both macro and micro nutrients as per approved work plan. The soil sample results after received from ICRISAT have been distributed to all the concerned farmers. They have been told about the status of different major and micro nutrients in their soil.

b. Progress during Kharif, 2011:

3 varieties of Groundnut namely, ICGV 91114 (Devi), ICGS-44, ICGS-76 are tested with the promising local var (AK12-24 / Smruti) under farmers participatory variety selection trials in 21 trials by 21 farmers in 21 villages of Phase II blocks of Kandhamal, Gajapati and Kalahandi programme districts. The plot size of each variety is 100 meter square in each trial.



Ground nut (Devi var) crop in Gajapati

955 kg of Ground nut (var Devi) seeds have been taken up by 23 farmers under breeder seed production programme in an area of 6.0 Ha covering 2 villages & 2 blocks of Gajapati district. The sowing of the seeds has been done during 1st week of July, 2011. Besides informal seed production of groundnut (var Devi) has been taken up in an area of 6 ha covering 24 farmers Of 9 villages in 3 blocks of Gajapati district.

Three varieties of pigeon pea namely Kamica (ICP7035), Asha (ICPL 87119)and Laxmi (ICPL85063) are tested under farmers participatory variety selection trials in 51 locations of Phase II blocks of Koraput ,Kandhamal, Gajapati and Kalahandi programme districts. The



Farmers training on Pigeon pea cropping in Koraput

plot size of each variety is 100 meter square in each trial.

Two varieties of perennial vegetable type of pigeon pea (Kamica & ICPL 87051) are being tested by 600 farmers in Phase-I & Phase-II blocks of four programme districts.

Intercropping of Asha (ICPL87119) var. of pigeon pea with ragi / maize (2:4 ratio) in an area of 10 ha and Kamica (ICP 7035) var. of pigeon pea with ragi in an

area of 4 ha have been taken up in four programme districts. These intercropping systems are covered under informal seed production programme, following one variety in one village concept, with 500 m of isolation.

10 farmers training programme each with 30 participants including women farmers on seed production technologies and Integrated Crop Management Practices of Ground nut and Pigeon pea were conducted during June & July, 2011 in Koraput, Kandhamal, Kalahandi and Gajapati districts.

IFAD- EC- ICRISAT- Project- 44

The objective of the project is to enhance the productivity and production of legume crops (groundnut, chickpea and pigeon pea) through scaling up of better adapted cultivars and management technologies in relevant cropping systems of India and Myanmar. The project launching was made in ICRISAT, Hyderabad during February, 2011. The interventions under the project will be implemented during 2011-12 and 2012-13.

Progress of the Project during Kharif, 2011:

500 kg of Pigeon pea (Var Asha) seeds (after receipt from ICRISAT) have been sown during June, 2011 under breeder seed production programme in an area of 25 Ha under Tumudibandh, Balliguda and Daringibadi blocks of Kandhamal district

1500 kg of Ground nut (var Devi) seeds have been taken up under informal seed production by 30 farmers in an area of 7.6 Ha covering 4 villages of Koraput district. The sowing of the seeds has been done during 1st week of July, 2011.

The details of component wise programme under IFAD EC ICRISAT project as per approved work plan was discussed with the Agriculture officer and Watershed Development Team members - Agriculture in the State level workshop at Bhubaneswar from 30-31 May, 2011.

4 farmers training programme each with 30 participants including women farmers on seed production technologies, Ground nut and Pigeon pea were conducted during June & July, 2011 in Koraput and Kandhamal district.

INFORML SEED PRODUCTION & VILLAGE SEED BANK

Farmers have realized that productivity of different crops increase significantly due to use of quality seeds. But it is almost impossible for the organized seed sector (Govt & Private) to meet the demand of the farmers. It becomes difficult for supply of quality seeds to most of the programme areas due to inaccessibility. Attempt has been made for production of seeds informally and linked to village seed bank through women SHGs. The preferred varieties of groundnut, chickpea and pigeon pea as per farmers participatory variety selection trials under IFAD 954 ICRISAT Project have been multiplied under informal seed production programme. This has helped the farmers to meet the requirement of seeds to some extent in the area. But this was visible here and there in the programme areas of Phase I. Basing on such learning

experience, a systematic programme has been drawn up for informal seed production of two major food crops (Paddy and Ragi) of tribals in the programme areas during Kharif, 2011 and linking the same to village seed bank.. The idea of operationalisation of the concept of 'village seed bank', (VSB) is to make village self-sufficiency in production and distribution of quality seeds. Village seed banks should operate with utmost transparency, mutual trust and social responsibility of the seed farmer towards his fellow farmers. The following processes have been followed under the activity.

i. Formation and Management of village seed bank:

Programme Officials will facilitate to identify one "A" grade woman SHG in the seed production village that is willing to promote seed bank in consultation with VDC / VLSC members. No member from the identified women SHG will take up seed production programme. The formation of village seed bank will be considered as an enterprise and the women SHG will avail credit required for the purpose under RFS as revolving fund.

ii. Survey:

A quick survey is to be undertaken to assess the ground situation and ascertain the demand for different types of seeds for various crops. Then the potential farmers (comparatively better and progressive farmers) and lands (comparatively good soil fertility, leveled land, bonded plot, with irrigation facilities) are identified after which the requirement of different seeds is assessed.

iii. Capacity Building of seed growers:

The seed growers will be trained on production of quality seeds, storage and distribution. Potential trainer for capacity building of the farmers on production of pure and healthy seeds of a specific crop and variety will be identified.

Course module on technical details of seed production programme should be finalized by the potential trainers in consultation with the programme staff. The course content should invariably include purity of seeds, maximum isolation distance in cross pollinated crops (such as pigeon pea), rouging of off types (rogues) before flowering, pest and disease management, separate threshing for each variety, proper drying & storage management. Posters and illustrations should be used as teaching aids in the training programme. This should be displayed on the wall of a building, house of the seed production village. Capacity building of the seed producers should be done twice (once before sowing and second one after harvest of the crop) in clusters preferably in one of the seed production village.

iv. Arrangement of seeds and inputs for seed growers:

Programme staff will facilitate women SHGs (where seed banks will be established) for procurement of breeder / foundation / certified seeds of different crops and their varieties sufficiently ahead of the season (at least two months before sowing of the crops). At the time

of procurement of seeds the germination test of the seed must be done by women SHG Programme staff will facilitate the identified women SHG to distribute the required breeder / foundation / certified seeds of different crops and their varieties to the potential seed growers on credit after germination test. The cost of seeds will be realized from the seed growers at the time of procurement of seeds. Programme staff will facilitate the potential seed growers on availability different agro inputs (required FYM / compost / vermi-compost, bio-fertilizer, other organics, neem pesticides as per requirement, gypsum and borax in case of groundnut seed production etc) at least one month before sowing of the crop

v. Sowing & Management of the crop by the seed growers :

Programme staff will facilitate seed treatment, timely sowing of the seeds, right spacing and seed rate including right seedling technique, nutrient management, appropriate soil & moisture conservation measures, pest and dosages surveillance and management, removal of rogues before harvesting, right harvesting time, avoiding mixing different varieties while harvesting / threshing

vi. Monitoring of Seed Production:

The programme officials, seed growers and women SHG members should jointly inspect the seed production plots. The seed growers should be assisted with appropriate technical guidance by the programme officials in different steps of seed production such as identification of vertical characters, removing the off –types, management of the disease and pests, timely harvesting and proper threshing.

vii. Seed Storage Management:

Normally a house with pucca flooring and cement walls is selected for seed storage. The house and floor should be cleaned regularly. The seed bags are sun-dried for a couple of days before filling with seeds. Alternatively storage structures should be used for seed storage.

viii. Seed Procurement by women SHG from seed growers:

The seed growers, other farmers of the village and woman SHG members will inspect the quality of the seed not only during seed production in the field but also at the time of procurement. A sample of the seed is kept aside from each seed grower and subjected to germination test. The women SHG members and seed growers in consultation with VDC / VLSC members would decide the procurement price (usually be 10% above the market price).

ix. Selling price of seeds by women SHG to seed growers in the next season:

The women SHG members and seed growers in consultation with VDC / VLSC members would decide the selling price in the next cropping season taking into consideration the market price of the seeds and grains. Thus the women SHG get an incentive to sell and buy the seeds within the village.

Progress during Kharif, 2011:

The ITDA wise progress is as follows:

ITDA	No of villages	No of seed growing farmers	Quantity of certified paddy seeds used (Qt)	Area in Ha	No of Women SHGs identified for seed bank
a. Paddy:					
Koraput	105	210	63.0	84.0	80
Malkangiri	16	90	27.0	36.0	16
Nawarangpur	42	84	25.2	33.6	46
Gunupur	60	150	60.0	80.0	68
Paralakhemundi	79	175	56.7	75.6	79
Balliguda	37	74	22.2	29.6	37
Th. Rampur	46	118	32.5	43.3	42
b. Ragi:					
Koraput	78	131	4.46	44.6	58

Promotion of Pineapple, Ginger, Turmeric and Tuber crops under RKVY

Among others, pineapple, ginger, turmeric and tuber crops are cultivated in programme areas of Koraput, Kandhamal, Kalahandi and Gajapati districts in hilly slopes and planes as cash and staple crops. These crops, although have high yielding potential, produces lower yields due to unscientific cultivation, low use of inputs and use of local varieties. Non availability of quality planting materials and poor financial condition of the tribal farmers are major factors for low yield of such crops. It is thus envisaged that a project for improvement of these four types of crops can enhance the livelihoods security of many tribals. Once the tribals are exposed to the new high yielding varieties and technologies through demonstration and training they can adopt the same for getting higher yield and premium price. The profitability can be further increased by value addition and agro-processing. Accordingly the project proposal submitted by OTELP on 'Livelihood improvement of tribals through production and value addition of tuber crops, pine apple and organic spices' at a cost of 139.18 lakh rupees was approved by State Level Sanctioning Committee, Odisha under RKVY during 2011-12.



Ginger cropping under RKVY in Koraput

The crop wise proposed area and expenditure under the project are indicated below:

Crop	District	No. of Blocks	No. of house holds	Area (ha)	RKVY contribution(Rs in lakh)		
					Critical agro inputs	Capacity building	Total
Tuber crops	Koraput & Kandhamal	5	2000	45	35.70000	2.584	38.28400
Pineapple	Gajapati & Kalahandi	4	1200	24	35.21819	0.764	35.98219
Turmeric	Kandhamal	2	1500	30	34.62214	0.764	35.38614
Ginger	Koraput	2	1500	15	28.77234	0.764	29.53634
	TOTAL	13	6200	114	134.31267	4.876	139.18867

In the mean time 27 MT Ginger (Var Suprava), 42 MT Turmeric (Var Lakadong), 67.8 MT of Yam (Var Odisha Elite), 50 MT Elephant Foot Yam (Var Gajendra), 5000 (Koraput 3000 + Kandhamal 2000) of Tapioca stem (seed materials) and 2.87 lakh (Paralakhemundi 1.96 lakh + Kalahandi 0.91 Lakh) Pineapple suckers (Var Queen) have already been planted in the field.

The block wise progress by 31st July, 2011 is as follows:

Crop	District	Block	No of Villages	No of Household	Area in Ha	Sowing time
Ginger	Koraput	Pottangi	23	750	7.5	12-25 June, 2011
		Semiliguda	19	750	7.5	10-25 June, 2011
Total		2 blocks	42	1500	15.0	
Turmeric	Kandhamal	Balliguda	29	750	15.0	1 st June to 7 th July, 2011
		Daringibadi	19	450	9.00	12-30 June, 2011
Total		2 blocks	48	1200	24.00	
Yam	Kandhamal	K. Nuagaon	13	200	5.0	1-30June, 2011
		Tumudibandh	13	200	5.0	1-30 June, 2011
	Koraput	Dasantpur	19	200	5.0	10-20 June, 2011
		Nandpur	17	200	5.0	5-20 June, 2011
		Laxmipur	16	200	5.0	10-30 June, 2011
Total		5 blocks	78	1000	25.00	
Elephant foot yam	Kandhamal	K. Nuagaon	15	200	2.0	15 June to 12 th July, 2011
		Tumudibandh	13	200	2.0	10-30 June, 2011
	Koraput	Dasantpur	19	200	2.0	12-30 June, 2011
		Nandpur	9	200	2.0	17-30 June, 2011
		Laxmipur	9	200	2.0	17-30 June, 2011
Total		5 blocks	65	1000	10.0	

Crop	District	Block	No of Villages	No of Household	Area in Ha	Sowing time
Cassava	Kandhamal	K. Nuagaon	10	40	0.4	2 nd fortnight, July, 2011
		Tumudibandh	10	40	0.4	2 nd fortnight, July, 2011
	Koraput	Dasmantpur	10	40	0.4	2 nd fortnight, July, 2011
		Nandpur	9	40	0.4	2 nd fortnight, July, 2011
		Laxmipur	9	40	0.4	2 nd fortnight, July, 2011
Total			48	200	2.0	
Yam plantation under Pineapple + Yam	Gajapati	Nuagada	7	200		5 th – 15 th June, 2011
		Rayagada	18	200		20-30 June, 2011
		Mohana	9	200		1-15 June, 2011
	Kalahandi	Th. Rampur	33	600 (3 FNGOs area)		12 – 30 July, 2011
Total		4 blocks	67	1200		
Pineapple plantation	Gajapati	Nuagada	1	80	0.52	Planting completed
		Rayagada	12	26	1.60	Planting completed
		Mohana	5	90	1.80	Planting under completion
	Kalahandi	Th. Rampur	10	91	1.82	Planting continuing
Total		4 blocks	28	287	5.74	

N.B.: Pineapple plantation will continue till September 15th

National consultant RKVY along with state consultant have visited Yam and Elephant foot yam cropping on 23.7.2011 in the fields of tribal farmers in the programme areas allotted to FNGO PRADAN under K. Nuagaon block of Kandhamal district and have highly appreciated the initiatives taken by tribal farmers. They have also discussed about the performance of tuber crops in Kandhamal areas taken up under RKVY with the District Collector, Kandhamal. They have requested him to facilitate the market linkage of the harvested produce with Jagannath Temple Puri.

510 farmers were trained in 17 training camps on integrated crop management practices of Ginger, Turmeric & Pineapple in the programme areas during July, 2011. Out of 510 farmers, 210 farmers trained on Tuber crop development, 90 farmers trained on Turmeric development, 90 farmers trained on Ginger development and 120 farmers trained on Pineapple development. In the above training programme, head, RC, CTCRI (ICAR) Bhubaneswar along with one senior scientist went to Koraput and Kandhamal districts and imparted training to 150 farmers on crop management practices of tuber crops during July, 2011.

Up-scaling of Agriculture under Phase I

Many interventions were successful in agriculture and horticulture development sector in the phase I programme areas from 2006-07 to 2009-10. These have been documented by PSU, OTELP in a booklet "PROMOTION OF SUSTAINABLE AGRICULTURE AND HORTICULTURE FOR PRODUCTION SYSTEM ENHANCEMENT". But these interventions were taken up here and there and compact patch was not visible. In most of the areas

Accordingly, Overseas Projects and Services Ltd (OPSL) is contracted from 15th Sept, 2010 to 14th Sept, 2011 to implement the Rabi and Kharif Action Plan under up-scaling strategy for agriculture and horticulture development in first phase areas covering 12 blocks. The State and District level consultants of OPSL have facilitated the implementation of the programme through the support of FNGOs, ITDAs and PSU in two cropping seasons (Rabi, 2010-11 and Kharif, 2011). The interventions that have been successful in the first phase districts are: crop diversification, integrated nutrient & pest management, organic farming of vegetables, fruits and spices with special emphasis on dry land horticulture, nutrition gardening, seed production under informal seed village programme, low cost technology for land and water management, and use of low cost implements for drudgery reduction.

Achievement during Rabi, 2010-11

During Rabi 2010-11 an action plan was drawn in consultation with the FNGOs, ITDAs and PSU to cover 2272 ha under sequential cropping, 1920 ha under horticultural crops, use of 5493 kitchen gardens, 1000 kg of bio-fertiliser, 114 ST pumps, installation of 1056 drum kits, 579 bucket kits, bio-pesticides in 419 ha and seed treating chemicals in 300 ha, and involve 1445 households in pot manuring and 338 households in vermi-compost preparation. The achievement under sequential cropping was 2023.04 ha and 923.15 ha in horticultural crops. Kitchen garden kits were used by 10015 households and 1840 kg of biofertilisers were used along with 521 ST pumps, 233 drum kits and 551 bucket kits. Bio-pesticides and seed treating chemicals were used in 103 ha and 165 ha, respectively. Pot manure and vermi-compost preparation were made by 234 and 74 households, respectively. The farmers have accepted the new crops, varieties and technology to raise the yield ceiling and income. Due to sequential cropping and introduction of new crops and varieties the yield increase was 10-25% in most crops while yield of paddy in SRI method was about 40% higher than the traditional method. Due to higher yield, the income of the farmers from agricultural crops has increased by 10-25%. The farmers have mostly adopted non-chemical technology and they have managed the nutritional need and pests by using organic manure, bio-fertiliser, pot manure and bio-pesticides. For economy in irrigation, surface treadle pumps, bucket kits and drum kits have been used by innovative farmers.

Programme for Kharif, 2011 and Achievement

During Kharif, 2011 action plan was drawn for coverage of 3505 ha under diversified cropping, 1707 ha under inter cropping, 102 ha under introduction of new crops/varieties, 500 ha under informal seed production, 160 ha under SRI, 600 ha under fruit plantation, 100 ha under tuber crops, and use of 3800 kitchen garden kits, 580 kg of biofertiliser, 200 ST pumps, 500 bucket kits, 300 drum kits, 450 units of vermi-compost, pot manure by 450 households. Neem extract by 400 households, green manuring in 500 ha and seed treating chemicals in 820 ha in the Phase I areas. Due to erratic monsoon and difficulty in getting agro-inputs, the achievement up to June, 2011 was slightly less than expected. However, substantial achievement will be made during July, 2011. The programme district wise achievements till 30th June, 2011 under various activities are as follows.



Develop- ment sub-sector	Intervention/ Crop	Acievement for Kharif, 2011(June,2011 ending)				
		Koraput	Kala handi	Kandha- mal	Gajapati	Total
Agriculture	Crop diversifica- tion from paddy to non-paddy (Ha)					
	Ragi	148.00		131.00	30.00	309
	Maize	120.00	6.00	144.00		270
	Arhar	251.00	45.00	184.00	22.00	502
	Vegetables	237.00	31.00	52.00	17.00	337
	Blackgram		60.00		10.80	70.8
	Groundnut	52.00		5.00		57.00
	Sub-total	808.00	142.00	511.00	79.80	1540.8
	Inter cropping in Ha					
	Arhar+ragi	4.25		90.00	41.00	135.25
	Maize+cowpea	2.50	8.00	45.00	18.00	73.5
	Maize+bean	1.25		8.00		9.25
	Rice+arhar	9.50		120.00		129.5
	Maize+yam	5.25	13.00	7.00		25.25
	Sub-Total	22.75	21.00	160.00	59.00	262.75
	Introduction of new Varieties (Ha)					
	Ragi	3.25			13.40	16.65
	Groundnut	2.75		8.00	6.60	17.35
	Arhar	2.00	0.50	13.50	5.20	21.2
	Maize	4.50	1.00	2.00	7.00	14.5
	Sub-total	12.50	1.50	23.50	32.20	69.7
	Seed Production (Ha)					
	Paddy	8.50	30.00	22.00	34.00	94.5
	Ragi	12.00		5.00	34.00	51
	Groundnut	6.00		17.00	9.20	32.2
	Arhar	8.00		16.50	7.00	31.5
	Maize	13.00	9.00	10.00	9.00	41
	Total	39.50	39.00	70.50	93.20	242.2
	SRI	9.00		8.00	147.00	164.00

Development sub-sector	Intervention/ Crop	Achievement for Kharif, 2011(June,2011 ending)				
		Koraput	Kalahandi	Kandhamal	Gajapati	Total
Horticulture	Fruit plantation (Ha)					
	Papaya	5.00		3.00	27.00	35
	Banana	5.00	2.00	5.00	37.00	49
	Jackfruit					0
	Mango	8.00			25.00	33
	Guava					0
	Citrus	2.00				2
	Pine apple				7.00	7
	Cashew	4.50			71.00	75.5
	Sub-total	24.50	2.00	8.00	167.00	201.5
	Tuber crops (Ha)					
	Yam	8.50		5.00	3.00	16.5
	Elephant Foot yam	7.75		5.00		12.75
	Tapioca	6.00		4.00	10.80	20.8
	Sweet potato	4.00		5.00	6.50	15.5
	Sub-Total	26.25		19.00	20.30	65.55
NRM	Kitchen garden kits (no)	225		400	2400	2825
	Use of biofertilisers (Kg)				75.00	75.00
	Use of green manure (ha)	27.00	2.00	7.00	46.00	82.00
	Vermicompost (Units)	27		7	60	94
	Pot manure (HH)	38		105	65	208
	IPM					
	Seed Treating Chemical (Ha)	120.00		125.00	84.00	329.00
	Neem extract (HH)		5	5	100	110
	Low cost implements					
	Bucket kit				78	78
	Drumkit				65	65
	STP				36	36
SALT	Demonstration				Training given	

Sites have been selected in two villages of Th Rampur and Lanjigarh Block of Kalahandi district in Phase II areas for conducting SALT demonstration from the next year. The communities have already been mobilized and trainings will be conducted during Aug-September, 2011 so that the farmers will prepare their land during March and arrange critical inputs from February, 2012.

Capacity Building Initiatives:

The following training programmes conducted by the ITDA/FNGO from April- June,2011.

District	Number of trainings conducted
Koraput	7
Kalahandi	13
Kandhamal	8
Gajapati	7
Total	35

Promotion of WADI Model of Orchard

Sustainable livelihood being major concern, it is proposed to focus on generation of employment for small and marginal farmers through enhancing Agriculture production in their private degraded, low fertile and un irrigated uplands. Such private lands can be profitably used for establishment of fruit based agro-forestry system (WADI). Fruit trees are efficient enough in providing higher economic return even under stress growing conditions prevailing under upland situation compared to other annual crops. Such type of farming system can provide year round employment while protecting soil from erosion and run off of rain water. Farmers can easily get an average annual income of Rs. 20,000/- per acre from fruit crops once the orchard starts bearing fruits. Besides intercropping with agriculture crops in the above orchard can be made and income can start from 1st year itself to sustain livelihood of the participating farm families. Promotion of horticultural crops can create opportunities for post harvest processing and marketing opportunities. For laying out the fruit based agro forestry system (WADI) in private land, suitable crop combination can be decided based on the climate, soil suitability and socio economic requirements. Suitable varieties of fruits like mango, cashew nut, litchi, sapota, guava, papaya, lime, custard apple, aonla & jack fruit can be incorporated in WADI model. Besides intercropping of suitable varieties of different crops like pigeon pea, black gram, ground nut, cowpea, French been, okra, fodder etc can be incorporated in the orchard. Once the orchard becomes 7-8 years old, shade tolerant crops like Ginger, Turmeric, Elephant foot yam can be intercropped with horticultural crops. Boundary plantation in orchard will be made by forest species. The climate in programme areas of different districts is very suitable for Horticultural crops. Subject Matter Specialists, FNGO officials and community members of OTELP visited BAIF – WADI programme in Gujarat and Maharastra during last financial year. Besides 3 collectors, 2 PA, ITDAs and one SMS of PSU also visited BAIF – WADI programme during June, 2011. Basing on the above experience and demand of the community systematic planning has been made for implementation of WADI plantation programme during current financial year. Accordingly Director, Horticulture was kind enough to associate his Subject Matter Specialists with OTELP officials for drawing of a convergence programme through the assistant from NHM. A clear cut instruction has been issued to the field functionaries for implementation of WADI plantation programme through the convergence programme from NHM. The different

combinations in WADI plantation programme are Mango + Cashew, Mango + litchi, Mango + orange, Mango pure crop. The details of progress during 2011-12 is given below:

ITDA	Block (No)	Beneficiary (No)	Area (Ha)	Present status
Koraput	3	300	120.0	Planting continuing
Gunupur	5	137	54.8	Planting continuing
Gajapat	2	160	101.2	21 ha planting completed and rest under completion
Th. Rampur	2	44	19.2	Planting continuing
Total	12	641	295.2	

Resource NGO BAIF who is having expertise on WADI plantation has been contracted to give support in Koraput district.

Scaling up Micro Irrigation System through IFAD-SCAMPIS Programme

SCAMPIS India project started since 1st April, 2009 in two pilot districts namely Koraput and Gajapati under Orissa Tribal Empowerment Programme (OTELP) areas and will continue till 31st March, 2012. International Development Enterprise, India (IDEI) having field experience of 20 years with farmers of Odisha on MIS is the project executing agency. and OTELP is to provide co-operation for implementation by IDEI. The project focuses to improve water availability with Micro Irrigation System (MIS) and application of liquid organic fertilizer (LOF) for increase of productivity of agricultural crops in 265 villages covering 10,000 households of two pilot districts during three years of project period.

Major Interventions and their impact since inception (As on 31st July, 2011):

Awareness campaign and capacity building of thousands of farmers and farm women have been done through village meeting, farmers training, weekly hat demonstration, village demonstration, farmers exposure, meeting of community based organisations, and mela.

9593 water lifting equipments (bucket kit 4758+ drum kit 2115 + surface treadle pump 2720) have been supplied to farmers at 90% subsidy from the project by end of June, 2011 against target of 14,000 (bucket kit 7500+ drum kit 2500 + surface treadle pump 4000) during 3 years project period. The district wise achievements are as follows:

Water lifting equipment	Achievement in Koraput	Achievement in Gajapati	Total Achievement
Surface treadle pump	1222	1498	2720
Drum kit	1110	1005	2115
Bucket kit	2276	2482	4758
Total	4608	4985	9593

20 litre capacity bucket kit with 44 micro tubes emitters are irrigating successfully to 44 vegetable plants in an area of 20 square metre area. Small land holding farmers and even landless farmers in their backyards have done kitchen garden/nutritional garden installing the bucket kits. Nutritional garden with bucket kit facility in the backyard gives small income of Rs 20-50/- per week for many landless after meeting own requirement. Households 200 litre capacity drum kit having 5-10 rows of lateral pipes of 10-20 metre long is irrigating to vegetable plants in 100 metre square area. Foot operated surface treadle pump can pump water from a depth up to 8 meters and having water discharge of 4000 litres per hour is irrigating more than one-acre area of vegetable. Less water is used through these machineries. Cropping season is increased resulting increase of fruiting time of vegetables due to installation of MIS in the vegetable fields and yield increased on an average by 10%.

Besides quality of the vegetables become better and fetches more value from the market. 2250 Liquid Organic Fertilisers (LOF) units (Koraput 1031 + Gajapati 1219) have been established at farmers level by 25th June, 2011 against the target of 5000 in the 3 years project period. LOF includes vermin wash, pot manure and magic tonic. Products are ready for use in the crop field within 10-15 days after installation of these units. Vermi wash is a liquid plant growth regulator that contains high amount of micronutrients, enzymes, vitamins and hormones and is used towards boosting farm productivity without incurring additional expenses on chemical fertilizers/pesticides. It is prepared at farmer field from the extraction of earthworms in 30 days. Cow dung and urine are used in developing organics like pot manure and magic tonic. The ingredients are cow dung, coarse red sand, kitchen waste, two earthen pot & 300-400 earth worms(*Eisenia foetida*). The Vermi wash is diluted with water before use. Cow dung and urine is used in developing organics like cow pit pat, pot manure, magic tonic and bio hormone. Potmanure is prepared after fermenting cow dung, cow urine, neem, karanj and arakh leaves and jaggery for 7-8 days and then sprayed to the vegetable crops after diluting in water and filtration. Pot manure provides nitrogen and repels insects and micro organisms. The crops become greenish and not attacked by pests and diseases. Magic tonic, made from cow dung, cow urine, jiggery, curd etc and gets ready in a month. Then it is diluted and sprayed on the crops. Magic tonic prevents plants pest attack and ensures vegetative growth of the leaves, thereby increases crop yield.

Farmer's views

New irrigating techniques- treadle pump, drum kit, bucket kits along with LOF are helping farmers for higher income through increase of productivity of vegetable crops. Farmers speak that MIS saves input cost, time and labour towards weeding as this technology pours water in root zone only.

Earlier farmers were cultivating only a part of their plot area due to paucity of water. They were irrigating land using manual micro basin such as fetching water by carrying it on head and shoulder, drawing water from wells, resulting in high fatigue and small ar



Kausalya Nayak with pot manure kit installed in her premises

irrigated. Earlier there was high wastage of water due to conventional irrigation practices led to high water wastage unlike MIS. Farmers are observing better growth of plants in case of crops grown through support of MIS. The women folk are very excited for preparation of LOF and they call it a *fertiliser plant*.

Technology binding generation

With high hopes and determinations Sukuman Muduli Khamara village of Nandpur block of Koraput district has installed a drum kit in his field, after getting good return from his field crops using surface treadle pump. The treadle pump has given lot of answers to his long standing problems like irrigation in vegetables during post rainy season after fetching a large quantity of water through his family members.



Use of Treadle pump by Sukuman Muduli in Koraput

Scaling up strategy

It is planned to upscale the learning experience of SCAMIS India project to new villages and districts of other OTELP and OTELP plus areas. Besides we are in the job for installation of few low pressure/ gravity based Drip irrigation for vegetable cultivation on raised beds in 1000 square meter area and linking to poly nursery to augment yield and income in Koraput, Gajapati, Kandhamal and Kalahandi districts during 2011-12 post rainy season.

Convergence Programme during Kharif, 2011

Sl. No.	Scheme	Activity	Area (Ha)	Beneficiary (No)	Programme District	Present Status
1.	NHM	Mango fruit plant plantation	30.0	75	Kalahandi	Planting Completed
			42.0	105	Koraput	Plantation continuing
			57.3	144	Gajapati	Plantation continuing
		Total	129.3	324		
		Banana	6.0	18	Gajapati	Planting Completed
2.	NHM & OTELP funding	WADI Programme (Mango + Cashew, Mango + lichi, Mango + orange, Mango pure crop)	295.2	641	Koraput, Rayagada, (Gunupur), Gajapati, Kalhandi	Planting Continuing

3.	NABARD	Mango + K.Lime	24.4	71	Kalahandi	Planting Continuing
4.	MNREGA	Fruit plant plantation (Mango) @ 0.10h per H/H	60	600	Kandhamal	Planting Continuing
5.	ITDA	Fruit plant plantation				
		a. Banana	11.2	56	Kalahandi	Planting completed
		b. Mango	10.0	50	Kalahandi	Planting completed
		Total	21.2	126		
		Grand total	536.1	1780		
6.	Bonda Development Agency	Vegetable cultivation (Monsoon potato, cauliflower, cabbage, capsicum)	7.6	243	Malkangiri	Planting continuing
7.	RKVY	Tuber crops, organic spices and Pineapple cropping				
		a. Yam	25.0	1000	Koraput & Kandhamal	Planting Completed
		b. Elephant foot Yam	10.0	1000	Koraput & Kandhamal	Planting Completed
		c. Cassava	2.0	200	Koraput & Kandhamal	Planting Completed
		d. Ginger	15.0	1500	Koraput	Planting Completed
		e. Turmeric	24.0	1200	Kandhamal	Planting Completed
		f. Pineapple + Yam	5.74	287	Gajapati & Kalahandi	Planting under completion
		Total	81.74	5187		
8.	RKVY	Maize Demonstration	767.4	2626	Gajapati & Rayagada (Gunupur)	Sowing completed
9.	RKVY (Green revolution to eastern India)	Line transplantation of Paddy	751.2	1783	Gajapati, Kalahandi, Nawarangpur	Transplanting continuing

10.	RKVY (Nutritive cereal)	Ragi demonstration	228	612	Rayagada (Gunupur)	Planting completed
11.	Integrated cotton development programme	Cotton demonstration	10	10	Do	Sowing Completed
12.	NFSM / Extension reform programme	SRI	128.5	302	Gajapati, Rayagada (Gunupur), Kalahandi	Planting completed
13.	NFSM / Extension reform programme	Seed Replacement				
		a. Paddy	552.0 (331 qtls seeds)	1379	Kalahandi, Gajapati, Rayagada (Gunupur)	Transplanting continuing
		b. Pigeon Pea	35.0 (7 qtls seeds)	175	Kalahandi	Sowing completed
		c. Maize	27.2 (40.8 qtls seeds)	615	Kalahandi	Sowing completed
		Total	614.2	2169		
14	NFSM / Extension reform programme	Green manuring	98 h (24.5 qtls seeds)	310	Kalahandi, Gajapati, Rayagada (Gunupur)	Sowing completed
15	NHM	Vegetable Kit	2400 kit	2400 beneficiaries	Gajapati	Planting continuing

5.3.2 Livestock and Aquaculture Production

The domestic animal are being treated as a major asset of the poor for generations. Tribals rear goats, Pigs, Cattle, Poultry bird etc. in a traditional way. They are yet to recognise the potential of production and return from present livestock with the improved management practices. The scientific developments and improved technologies have not reached them yet.

Breed Up gradation of Animals	Number
Poultry Bird	3194
Duck	1017
Goat & Sheep	3820
Cow	245

(Source: Project MIS, 2011)

The issues with the tribal communities for rearing livestock as a livelihoods model are mortality of the animals because of different diseases and traditional practices of rearing. The programme has tried to give focused interventions on village based livestock disease control system and animal production system improvement. This has done by ensuring immunization of the animal by conducting series of animal health camps. One village volunteer from each micro watershed have been promoted as Livestock Para Workers and equipped with veterinary kits to extend support to the poor farmers in saving their domestic animals.

Livestock population in the programme areas has been going down significantly since last two decades due to lack of proper disease management as per the feedback received from the community during preparation of micro plan. For the management of the the village level disease control system, 341 village veterinary volunteer have been promoted through training on vaccination procedure, handling of drugs and treatment of common diseases etc.

- a. Vaccination : 69142 animals benefiting 17433 households.
- b. Castration : 4670 animals benefiting 2635 households.
- c. Treatment of wound : 6875 animals benefiting 2627 households.

These village veterinary volunteers are earning an income of Rs.500.00 per month for giving support to the community in livestock disease management.

Type of Livestock reared	Goat & Sheep	Poultry Bird
No. of Animals	11495	2580
SHGs Involved	247	138
Members Involved	3682	2463
Landless Members Involved	1049	560
Average Income/ member	Rs. 3300/-	Rs. 2050/-

(Source: Project MIS, 2011)

5.3.2.1 Rearing of Improved Breed

11495 no. of improved goats and 2580 improved poultry have been introduced by the projects through SHGs. The details of the breeds upgraded are presented in the adjoining table. Further based on these demonstrations and subsequent exposure and capacity building on livestock as a livelihoods option, community members/ SHGs are facilitated to up scale the activity. Accordingly, 247 women SHGs covering 3682 households (including 1049 landless households) have purchased 11495 goat and sheep availing loan from the Rural Financial Services. The annual average income of each household is Rs.3300/-. Similarly, 2463 members from 138 women SHGs, including 560 landless households, have purchased 2580 poultry birds availing loan from the Rural Financial Services. The average annual income of each household from the poultry is Rs. 2050/-

5.3.2.2 Fodder Development

Fodder cultivation in an area of 65.3 ha has been promoted in the programme area. The different fodder crops taken up are stylo, cowpea, berseem, oat, bajra hybrid, subabool.

5.3.2.3 Aquaculture

Potential for fish production is under tapped in the programme areas. In the mean time a number of new water bodies have been created in the programme villages under Land & Water Management. Care has been taken to identify potential farm ponds for fish production. The progress under aquaculture is as follows:

Particulars	2008-09	2009-10	2010-11
Water bodies used for Pisciculture	113	151	162
Groups involved in Pisciculture	113	111	123
Average income per Group	Rs.4955/-	Rs.5000/-	Rs.5500/-

- 123 women SHGs, have taken up aquaculture in 162 tanks.
- Capacity Building of the 233 SHG members have been made by resource persons of Govt. fisheries dept. And KVK. On an average 3 training programme per tank has been conducted during the season.
- In an average the group practicing fishery as a livelihoods option are earning Rs. 4000/- to Rs. 5000/- per year besides their own consumptions of about 50% of their total harvest.

5.3.2.4 Focused interventions for promotion of backyard poultry

Poultry farming, remain as part-time activities despite their huge potential for generating income. These activities can also unleash human productivity, encourage women and unemployed youth to generate supplementary income and bring desired socio-economic changes in rural areas. This will bridge the gap between demand and production of eggs and meat. The backyard poultry farming generates additional income to the members and boosts their nutritional standards and overall health, as well as that of their family.

The programme introduced backyard poultry as a livelihoods activity to groups of tribal women belonging to self-help groups. They are trained in basic skills like vaccination and poultry management so as to manage breeding centres. In the poultry sector, there is a great scope to enhance food production through layer and broiler farming. Although Orissa requires 4.8 million eggs per month, the state is able to produce only 3.2 million. This large gap between demand and supply is filled by procuring eggs from the neighbouring states, i.e. Andhra Pradesh, West Bengal, Jharkhand and Chhattisgarh.

Introducing low-input technology birds

Backyard poultry is highly acceptable in tribal areas. Almost 60 per cent of rural and 100 per cent of SC and ST households are rearing backyard poultry in Orissa. Rural backyard poultry is also contributing nearly 30 per cent of national egg production. Yet, it is the most neglected activity in Orissa compared to its neighbouring states.



Poultry

Although most ST households rear backyard poultry, their contribution is minimal. This is because they rear indigenous birds, which are not remunerative in comparison to rearing low-input technology birds, which are dual purpose birds: they lay a good quantity of eggs and the male birds grow quickly. Village poultry eggs and meat fetch a much higher price than commercial poultry.

The advantages of dual-purpose low-input technology birds (*vanaraja*) versus indigenous (*desi*) birds are as follows:

- *Vanaraja* variety birds lay 150 to 180 eggs per year in free-range conditions, against 30 to 50 eggs by a *desi* bird.
- Their body weight ranges from 2 to 2.5 kg in 90 days, against 500 gm for *desi* birds during the same period.
- *Vanajara* birds thrive well on village and household waste.
- *Vanajara* birds are phenotypically similar to *desi* birds and also have good-quality meat. Village households prefer the coloured birds, which produce more eggs and meat under scavenging conditions.

Supplying day-old chicks

Since day-old chicks are vulnerable to predators in free-range conditions, breeding centres (mother units) with a capacity to rear 1,000 day-old chicks are being established by SHGs with the support of the IFAD-funded programme. To date, 47 centres have been established. The programme contributes Rs.1.68 lakhs per Village Development Committee to establish one mother unit, with the SHGs contributing the balance. Each mother unit will cover 75 families, and each family receives Rs.1500/- from the project to meet the cost of 21 days old chicks and feed etc. These three weeks chicks can survive in open-range conditions. The birds can be sold for meat after 60-90 days. The hens can be reared for their eggs, which they start laying after 24 weeks. After the egg-laying period, the hens can be sold for meat at a cheaper rate.

The programme envisages an annual income of Rs.15, 000/- per annum per family for rearing 120 birds in six cycles @ 20 birds per cycle. However, a much higher income reaching to Rs.24000/- is expected if a family rears 40 birds per cycle. The programme expects 80 per cent of the participating households to move above the poverty line permanently by March 2012. This should translate into a 30 per cent reduction in malnutrition among tribal families.

Rearing backyard poultry with low-input technology birds is clearly a viable means of helping eradicate rural poverty and address food insecurity. With minimum investment and extra labour required by rural households, backyard poultry farming could be developed as a rural cottage industry to spur economic development in rural areas.

5.3.3 Rural Financial Services

Scaling up of the livelihoods interventions are made through rural financial services sub component under the component livelihoods enhancement. The services under this sub

component are routed through the Self Help Groups (SHG). Under this sub component there are two areas of interventions. First is to promote savings behaviour among the rural poor and the second is to ensure timely availability of small credits for their household need as well for taking up various income generating activities. These income generating activities are mostly based on agriculture and allied areas. Besides, micro enterprises at the village level are also promoted.



Women discussing on fund management

This sub component has two key elements. First is the provision of seed capital to the newly organised groups to make them stable and to start the internal lending from the beginning. Second is the revolving fund support which is provided based on specific income generating activities planned by the SHGs. The programme is now supporting 4056 SHGs, covering more than 90% of the total targeted households from the programme villages. Efforts are made to promote the SHGs through regular handholding support from facilitators and the volunteers strengthened at the community level. Training on Book keeping and maintenance of accounts are ongoing in a continuous process. Concept of rotational leadership has been appreciated by the groups and is under practice with 1303 SHGs. Six monthly gradation system is established to assess the strength and weakness of the SHGs and to provide need based capacity building inputs to bridge the gaps.

Ensuring financial inclusion, the programme has facilitated bank linkage of the SHGs. Adequate trainings and exposure visits have been organized to facilitate Income Generating activities among the SHG members. The repayment status to bank and other funding agencies has been improved. All SHGs have been provided with standard register for maintenance of books and accounts at their level. Focus has been made to strengthen the SHG promotional issues along with strengthening the capacities of SHG members/ SHG volunteer on record keeping and maintenance of accounts.

Particulars	Coverage
No of Groups conducting meeting regularly	3439
No of group following rotational leadership	1303
No of Groups undertaking savings regularly	4056
Cumulative Savings	Rs. 436.52 Lakhs
Average Savings per SHG	Rs. 10762/-
No. of SHGs taking Loan from RFS	1577
% of Members of SHGs taking loan from these groups	62%
Amount of Loan Taken by these groups from RFS Fund	Rs. 359.42 Lakhs
Per capita loan by SHGs	Rs. 22790.00
Amount Repaid by these groups	Rs. 59.61 Lakhs

Regularity of group meeting, internal saving and utilizing the savings to meet the requirement of the group members through lending mechanism is an important attributes of effective functioning of any group. Initially, it was observed that many groups collected savings from the members regularly but the amount saved was either deposited in bank or kept idle on their own cash box. In view of above, lots of facilitative inputs are augmented through exposures, trainings and hand holding support to improve on the above parameters. Today the progress in these sectors, though not very encouraging but relatively satisfactory.

Overall regularity of meeting has been increased upto 90% at the group level. Many groups also have started conducting meetings on weekly/ fortnightly basis. Concept of rotational leadership has been appreciated by the groups. Till date, about 1303 SHGs have started adopting rotational leadership. Besides about 35% SHG started rotation of leadership during weekly/ monthly meeting and the cash box and key is kept with different members on rotation.

The practices of regular savings by these groups are also very encouraging. Till date, total savings available with the group has reached to Rs. 436.52 Lakhs, with an average of Rs. 10762.00 (approx.) per group. In spite of strong facilitation, the progress under the internal lending among the SHGs is not very encouraging. Very few SHGs in the programme villages have considerable satisfactory internal lending mechanism, but largely it is still an area needing substantial improvement. However, 1577 SHGs have taken loan from the RFS fund available with VDCs. An amount of Rs. 359.42 Lakhs, have been taken as loan by these SHGs.

5.3.3.2 Gradation Details

Gradation of groups is under taken on half yearly basis to evaluate the status of effective functioning of the groups. Appropriate need based actions are being taken up based on the analysis of gradation status of each SHG. This also helps the facilitators to monitor the health of SHGs on individual basis. The details of the different grades of the SHG assessed during 2009-10 and 2010-11 are presented in the above table.

Grade	No. of SHG	
	2009-10	2010-11
Grade A	1206	1988
Grade B	968	1214
Grade C	336	651
Not Graded	1311	203
Total	3821	4056

5.3.3.3 Linkages with Financial Institutes

Mainstreaming the SHGs with the formal financial institutions is the next step adopted under the programme after the formation of these groups. This helps these groups in accessing banking products like savings, credit, insurance etc. Besides, the interests paid to bank from the loans are much lower in comparison to the loan taken from the money lender. These loans are mostly used by the group for undertaking various income generating activities. Most cases the groups undertake group level livelihoods activity like collective farming, collective marketing, food processing units, etc. Besides, the members of the group also take individual loans to take up various livelihoods activities. At times it was experienced that the banks disburse more than the group requires. This make the group overfunded and

subsequently become default in repayment. Thus, the programme ensures proper safe guards to take care of the issue of overfunding to the SHGs from different financial institutes. While interacting with the bank officials, it is learnt that repayment status from the programme villages is highly satisfactory.

5.3.3.4 Federation

Linkage with Banks	Rs. In Lakh
No. of SHGs linked with Bank	1744
Cumulative Fund Mobilization	701.13
Fund Mobilization during last year	179.03

(Source: Project MIS, 2011)

Federations are the step ahead to ensure sustainability of the SHGs promoted. The programme promotes federations of SHG at the level of micro watershed which is a combination of two to three villages. Approximately 10 to 12 SHGs exist in one micro watershed which is federated. The basic objectives of organising these SHGs into federation are to tag all these groups with each other before the programme exit from the location. These federations will provide necessary support to the SHGs and its members for effective management and operation of the SHGs. These federations will be used for delivery of various business development services by the programme.

The Govt. of Odisha has already launched the National Rural Livelihoods Mission (NRLM). This programme will adopt the existing structure of the SHGs for livelihoods promotion. As part of the programme cluster level federations are promoted at a cluster of two to three villages. The federations promoted in the OTELP villages can be taken up directly under the NRLM for delivery of livelihoods activities. This will be an area of convergence established at the state, district and block level with NRLM and Mission Shakti to strengthen the SHG federation.

Till date in 135 phase I micro watersheds the VDC level federations have been completed and these federation of the SHGs will subsequently be federated at the block level to form an apex organisation to provide various livelihoods services like training, credit, infrastructure, management etc.

5.3.3.5 Book Keeping and Accounts Management

The programme ensures training and handholding support to the SHGs for timely and proper book keeping by the SHGs. Training on numerical ability of the women are conducted to promote record keeping by the members of the SHGs. However, this activity is limited to those members who are semiliterate. Besides, the programme promoted book writers in all the programme villages to ensure that these trained youths support the SHG in their village to update and maintain the accounts and related documents of the SHGs. The training modules developed with the support of ACCESS Development Services are under implementation.

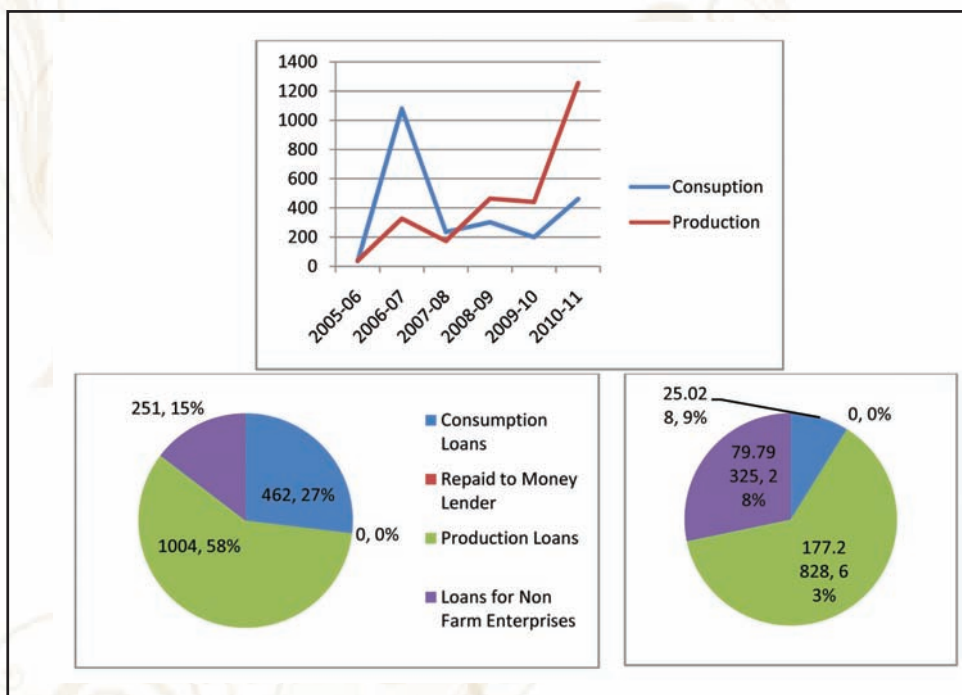
More than 500 SHGs have started maintaining the records of their own and rest documents are being maintained by the trained volunteers.

5.3.3.6 Credit seeking pattern in SHGs

There are different levels of capacity across the programme area for seeking credits from the SHGs for their domestic as well as livelihoods needs. The programme promotes both. Broadly the loans are divided into four categories i.e. consumption loan, loan taken for repayment of the old loans from the money lender, loans for production purposes (agri and allied) and loans for the non-farm enterprise activities. The first two categories are basically consumption loans and the last two are the production loans. From the time scale data this is visible that there is a shift from the consumption loans to the production loans. The following chart depicts the shift pattern since 2005-06 to 2010-11.

This shift is not in terms of number of loans rather in terms of value of loans too. 63% of the loans are utilised for agriculture production and allied activities which is the primary livelihoods sector of the tribal. Similarly 28% of the loans are utilised for taking up non-farm livelihoods activities.

This shift indicates a positive move towards credit absorption capacity of these groups and also towards improvement of income at the household level.



5.4.11 Collective Marketing

In view of successful implementation of Collective Marketing initiative during the pilot phase in 56 programme villages, the district authorities from all four programme districts suggested for continuity of support of M/s MART, Bhubaneswar. The members of JRM also endorsed the proposal of up scaling the initiative to all programme villages. Later, with due consultation and feedback from the district, the fresh ToR developed highlighting the sustainability aspects

of collective marketing. The new ToR developed, included the Replication of Collective Marketing, Cadre Promotion, Institution Building, Cluster Development, Capacity Building and Documentation. The contract with MART was signed for two years on 15th October, 2007.



During the two years association of MART, all Phase-I programme villages were covered under Collective Marketing. A detail product profile developed from all villages indicating the quantity of products available, timing of harvest, surplus amount etc. The villagers also exposed to different market sites, interacted with traders from local hats, blocks, districts and other terminal markets.

The local volunteers were capacitated to promote collective marketing at the community level. 58 cadres from the programme villages have been promoted. Two clusters for tamarind and cashew has been developed in Paralakhemundi. Processing machines for different products have been installed and made operational. Adivasi Bazar Market in Tumudibandh block, Baliguda, Kandhmal has been strengthened as Secondary level institute to facilitate marketing initiatives.

On the capacity building aspects, about 100 training programme and 60 exposure visits have been organised for the village level members (SHG Volunteers, Cadres) and for the facilitative staffs of OTELP from ITDA and F.NGOs. A booklet on Collective Marketing has been developed. To strengthen the capacity building programme on Collective Marketing, flip book, flip chart, posters etc. have been developed. Documentary film on the initiatives of Collective Marketing in English has been developed.

During the year of 2010-11 ,about 21 products such as Cashew, Tamarind, Vegetables, Hill Broom, Castor ,Black Gram, Mahua ,Red Gram, Green Gram, Horsegram, Maize, Mustard etc. have been covered under collective marketing covering 315 villages. The total turn over augmented through the Collective Marketing is about Rs. 1.04 Crores, where the total incremental benefit comes to -Rs. 21.49 Lakhs. More importantly, the concept of Collective Marketing has been well grounded at the community level. SHGs and CIGs ensure collectivisation of products and negotiate with the traders before selling the products. Batter has been completely stopped and people start selling all the products through proper weighing system. First level value addition is also in practiced.

A web based Production and Market Information System (PMIS) for product mapping has been developed with the support of MART, which has been linked to OTELP site. This enables both the villagers to get information on availability of traders, price, location etc. Similarly, the traders are able to know the quantity of products available, time of harvesting, cluster hub, contact person. This initiative has been appreciated by ORMAS, TDCC the marketing agencies in Odisha.

Community Infrastructure Fund and Development Initiatives Fund

The programme has a thrust to cover the remotest villages of its operational blocks and districts, so as to reach to the deprived communities and mainstream them with recent developments. Lack of infrastructure in those villages is mostly due to its geographical situation and low population, which does not qualify them for accessing the mainstream infrastructure programme implemented by the Government. The Community Infrastructure Fund (CIF) tries to identify those gaps and create essential community infrastructure at the village level having a direct relation with the livelihood of the poor. The programme has developed a comprehensive guideline for the implementation of the CIF component. This guideline profusely elaborates the scope of activities to be taken up under the component, its implementation modalities, intuitional arrangements etc. Various activities taken up during the year 2010-11 under CIF are presented below:

Activities under CIF			
Sl. No.	Activity Details	Unit	Total
1	Drying Yard	Nos.	103
2	Spring based Gravity Flow Water Supply	Nos.	105
3	Solar Electronic Workshop	Nos.	1
4	Village Road Up gradation	Mtr	6
5	ARC cum SHG Training Hall/ Knowledge Centre	Nos.	34
6	Grain Bank	Nos.	2
7	SHG Shop	Nos.	3
8	Market Yard	Nos.	1
9	Poultry Farm	Nos.	5
10	Solar Drier	Nos.	1
11	Solar Light (including workshop)	Nos.	141
12	Solar Street Light	Nos.	2
13	Toilet & Bathroom	HH	4970
14	Cowshed	Nos.	2
15	Tamarind Deseeding/ Packaging Block	Nos.	1
16	Bathing Complex	Nos.	1
17	Storage Water Tank/ Open Well	Nos.	55
18	Oil Extraction Mill/ Rice Mill/ Flour/ Dal Mill	Nos.	3

Activities under CIF			
Sl. No.	Activity Details	Unit	Total
19	Work Shade	Nos.	18
20	Storage Godwon	Nos.	219
21	Threshing Platform	Nos.	2
22	Village Drain	Nos.	2
23	River Step	Nos.	16
24	Retaining Wall	Nos.	16
25	Salon	Nos.	1

Similarly, the Development Initiatives Fund (DIF) provides the flexibility to the communities in deciding innovative interventions and to upscale their successful experiences and learning. DIF is also used by the communities in leveraging funds from other developmental programmes, bringing in convergence. Besides, this also focuses on improving the quality of life for the rural poor particularly women.

Based on the earlier recommendations by previous MTR and subsequent JRMs, the programme has developed a guideline for selection and implementation of activities under this component. Broadly, the activities to be financed from DIF have been separated into four categories.

- Supplementary funding to other programme components.
- Experimenting and/ or upscaling innovative activities for livelihood.
- Promotion of low cost, time & labour saving technologies for reduction of drudgery.
- Support to the Vulnerable and Destitute Households living in the programme villages.

Initially, the programme has utilized part of this fund in constructing storage structures in the programme villages. Subsequently, based on the recommendation of the MTR and various JRMs, guideline for implementation of DIF was prepared, which provides clarity on the component. Some of the key initiatives taken under these components during the year 2010-11 are elaborated below.

Activities under CIF			
Sl. No.	Activity Details	Unit	Total
1. Supplementary funding to other programme components			
1	Drying Yard	Nos.	54
2	Spring based Gravity Flow Water Supply	Nos.	14
3	Poultry/ Goatary Farm	Nos.	193
4	Storage Water Tank/ Open Well	Nos.	2
5	Storage Godwon	Nos.	46
6	Kitchen Garden	HH	3908

Activities under CIF			
Sl. No.	Activity Details	Unit	Total
7	Kitchen Garden (School)	Nos.	331
8	Yam Cultivation (Seeds)	HH	951
9	Backyard Plantation		1537
2. Experimenting and/or up-scaling innovative activities for livelihoods			
1	ARC cum SHG Training Hall/ Knowledge Centre	Nos.	50
2	Grain Bank	Nos.	30
3	SHG Shop	Nos.	3
4	Cowshed	Nos.	2
5	Tamarind Deseeding/ Packaging Block	Nos.	13
6	Oil Extraction Mill	Nos.	5
7	Work Shade	Nos.	13
8	Saloon/ Tailor Shop/ Small Business	Nos.	154
9	Food Processing Unit (Rice/ Floor/ Pulses)	Nos.	22
10	Bee Keeping	Nos.	19
11	Cashew Processing Unit	Nos.	6
12	Seed Bank	Nos.	8
13	Drug Bank	Nos.	2
14	Sanitary Napkin Unit	Nos.	1
15	Silo Model Storage Bin	Nos.	150
16	Medicinal Plant Unit	Nos.	228
3. Promotion of low cost, time and labour saving technologies for reduction of drudgery			
1	Toilet & Bathroom	HH	2075
2	Leaf plate stitching	Nos.	173
3	Solar Electrification (HH)	HH	275
4	Smokeless Chulha	HH	442
5	Water Filter	HH	347
6	Strecher	Nos.	1
4. Support to the Vulnerable and Destitute Households living inside the village			
1	Roofing of Landless HH	HH	444
2	Support to the Poorest of Poor	HH	620
3	Grocery Shop	Nos.	275
4	Tribal Music Group	Nos.	4
5	Sound Box and Generator Set	Nos.	3

These two components have a larger impact in improving the infrastructural facility at the village level for improving the quality of life. Some of the immediate outcome of the activities implemented are gravity flow piped water supply to village and each household, solar electrification, total sanitation, community storage facility etc. The information on the key output indicator targeted under this component are presented in the table below:

Output Indicators	Upto		
	2008-09	2009-10	2010-11
Served with gravity flow piped drinking water	71	120	133
Covered under solar electrification (solar torch)	82	85	88
Covered with complete sanitation (individual toilet and bathroom)	63	115	131
Covered with storage facilities (community storage with drying facility)	93	119	270
Households covered with Total Sanitation (individual toilet and bathroom)	4613	6295	7045
Vulnerable/ Destitute Household supported with livelihood activities	470	1284	1970

(Source: Project MIS, 2011)

Supports for Policy Initiatives

Land to landless and homestead land to homestead less households have been the major components of empowerment. With the active Support and assistance of the Revenue and Disaster Management Department, Govt. of Orissa, ITDAs in the field along with FNGOs are facilitating for providing land to landless under various existing schemes and Acts of the Govt. of Orissa such as OPLE Act, OGLS Rule, Vasundhara and Mo Jami Mo Dhia scheme. Besides, the project facilitated the communities in getting land rights under Forest Rights Act (FRA). The objective is to cover 14369 absolute landless households of the programme villages within the project period. The programme has facilitated to expedite the implementation of Forest Rights Act for settlement of forest lands by providing hand held GPS of the sub-collectors of the programme areas along with financial assistance to engage additional hands preferably retired RIs and Amins. During the period, 10122 families have received land under FRA.



Further, with the existing provisions of Govt of Orissa, lands have been settled with 862 families under OPLE Act and 1440 families under OGLS Rules. Under the Vasundhara Scheme, 3620 families have been provided with homestead Land and 270 families through Mo Jami Mo Dhia scheme. The scheme wise families settled with land are presented in the adjoining table.

Sl. No.	Schemes/ Programme/ Provisions	No. of Families Settled with Land
1	OGLS	1440
2	OPLE	862
3	Vasundhara	3620
4	Mo Jami Mo Dhia	270
5	FRA	10122

For further strengthening the initiative, the PSU has signed MoU with RDI, an international NGO with registered office in India, for allocation of land to landless to ensure it as a focused intervention under the programme. This has been designed based on the two studies undertaken during 2009-10 with the support from DFID TA. These studies reveal that nearly 41% of the families in 43 villages of 20 GPs of Phase I districts were not having rightful ownership to the land on which they are residing. To tackle this problem, the detailed collaborative plan with RDI has been prepared and MoU signed to cover all the 30 blocks of OTELP operational area. The aim of this collaboration is to ensure that no landless family will be there in OTELP operational area by 2012. This collaboration has no financial

implication to the project. Both the parties will use their own resources and OTELP will meet the investments meant for the capacity building of the community resource persons and specialized human resources for execution of the MoU. As part of this collaboration, the RDI has identified and promoted Community Resource Persons (CRP) and oriented towards the identification of the landless and also on the procedures for applying land for the landless. These CRPs are comprehensively trained and piloted various methods of land survey. After the orientation of these CRPs, they are positioned with the local Revenue Inspector (RI) for creating a database of the entire household in the programme villages. A software application is developed for analysing these data and identifying the land related issues with each individual family. Accordingly, the programme along with RDI and the local revenue officials facilitated the beneficiary families in applying for new land or settlement of existing land related issues.

This initiative was shared through a National Workshop conducted during 18-19 June 2011 at Bhubaneswar. The process was highly appreciated by the Govt. and the members of the civil societies. This pilot of OTELP and RDI will be upscaled by the Govt. throughout the state for proper identification of the landless and settlement of land.

The other dialogue have also been started with a civil society advocacy group, which is a alliance of different NGOs working on land rights to identify issues relating to the community claim and habitation claim under FRA. This group is constantly consulted for providing information and facilitation support to the communities seeking community rights under FRA. Though there are claims yet to be settled, the issue has been raised at the highest forum and facilitation support is going on to the communities in preparation of the claims and submission to the appropriate authorities.



Food Handling

WFP has been supporting the project in terms of food grains which are paid to the beneficiaries as a part of the wage payment. The support has been yielding good results in terms of addressing the larger issue of food security in the programme villages. The beneficiaries are receiving one unit of food grain as a part of the wage payment which includes 3 kg of rice with a subsidized price of Rs.10.00 per unit. The funds generated out of this are deposited in the village account known as Village Development Fund. The VDF will be a corpus fund available with the village to be used for the post project management/ maintenance purpose. Moreover, the WFP food part has been very popular among the project beneficiaries and could able to influence the food habit of the people with nutritional supplementation. The detail of the food grains utilized during project period is presented in the above Table. TDCC has been entrusted with the job of lifting and transportation of the food grains from FCI depot and making transportation to the VDC point. This arrangement is continuing since 2008-09.

Year	Food Grains Utilized in MT		No of Wage days created		Avg. no. of workers hired per month	
	Rice	Pulses	Male	Female	Male	Female
2005-06	73.327	5.007	17624	12123	511	372
2006-07	810.931	48.669	194623	129749	2570	1875
2007-08	2063.786	105.625	389310	354637	3062	2517
2008-09	4630.860	0	622453	594967	5274	4908
2009-10	3811.797	0	609702	569438	4240	3980
2010-11	3844.254	0	609912	569886	4243	3986

(Source: Project MIS, March, 2011)

Programme Management

9.1 Monitoring & Evaluation

The programme has institutionalized methods for the monitoring of the output, outcome and impact of the programme activities. All tools have been designed in a manner to ensure community participation in the local governance system. The details of the tools are explained below:

a. Simplified Record Keeping at the grass root level organizations such as SHG, VLSC & VDC:

- Standardized set of documents/ registers has been designed and provided to the village institutions for recording of the events related to the programme implementation, its processes, outputs and expenditures thereof.
- These documents primarily record the accounting of funds received and spent, inventory, minutes of the meeting, activities undertaken, benefits realized etc.
- Standardized case records are being maintained by the VLSCs to record the interim progress and decisions made by the community during the implementation of the activity. This simplifies the ease of use of documentation processes for the communities and contributes to an effective governance system.



b. Voucher Based Monitoring System

- This is a simple tool innovated under the programme and adopted since 2007 (post Phase I MTR), to record and report the expenditures incurred in each month at each expenditure unit i.e. VLSC, VDC etc.
- Expenditures at village level are mostly in regards to purchase of material for any activity or payment of wages.
- Each payment made for purchase of material generates a voucher indicating the material purchased, from whom, amount and for which activity (related to a standardized case record maintained for each activity).
- Each payment made to labourers generates a muster roll indicating the number of labourers worked, period, no of days, work done and amount.

- The tool enables the community to make entry of all the paid vouchers and muster rolls into a simple format indicating the voucher/ muster roll no., the case record no. to which the payment belong, name of the activity, component, amount paid, date of payment, weather payment made in shape of check/ cash and whom to paid.
- All the entries are summed up in the report and the final figure along with the related documents (case record) are presented before the Village Social & Financial Audit Committee which is the Palli Sabha of the Village for approval of the expenditures made in each month from 22nd to 25th of each month.
- On approval of the same the original and duplicate copy (generated using carbon paper) sent to the VDC keeping the triplicate for record.
- The VDC receives the reports from each village within the micro watershed and consolidates the expenditures against each programme component and reports to the FNGO and ITDA.
- Accordingly the FNGO and ITDA only consolidate the information and add the expenditure incurred at their level and submit the reports.
- All these expenditure reports are being accepted as utilization certificate of the funds spent.



c. Physical Progress Reporting (Output & Outcome reporting)

- The FNGOs and ITDAs prepare Half Yearly Progress Reports against the Annual Work Plan & Budget for the year presenting the outputs achieved during the period and cumulative achievement.
- Besides, the ITDAs based on these reports, prepares Half yearly and Annual Performance Report which is an output linked outcome report presenting the change in various physical indicators for both RIMS and logframe.

d. Concurrent Evaluations

- Mid Term Review (MTR) for phase III conducted by IFAD completed during October 2010.

9.2 Web Based M&E Software

The development of the M&E Software is completed and under implementation at the PSU, OTELP. All the MIS Executives from the ITDAs have been received orientations in phased manner conducted by the PSU and CES, Kolkata. The Web Server has been setup and is under operation in the PSU for the M&E Software and the access to the software have been made through the OTELP website. The users are now accessing the software remotely from the website. Besides, the remote supports to the ITDAs are being provided by PSU from Bhubaneswar. The master data entries have been completed in all the master databases directly at the PSU level. The ITDAs have also completed the master data entry of the village master database, watershed master database and GP master database. The household survey data of

Phase I and II programme villages are being fed by means of bulk posting of data from MS Excel to SQL Server through data conversion method. Now the transaction data are being entered into the software.

9.3 Implementation of RIMS Impact Survey

Baseline RIMS Impact and anthropometric survey was conducted during 2008 covering 30 clusters in 20 blocks of 4 districts. The baseline survey of RIMS was conducted internally using the PO (PM&E), PO (CB) of ITDAs and WDT (Social Science) II FNGOs. Initially they were oriented on the survey methodology and questionnaire along with how to undertake anthropometric survey using the RIMS equipments received from IFAD on 9th September 2008. On completion orientation programme the respective WDT (Social Science) member of FNGO conducted the survey along with the Community Mobilizer in the sample villages. The impact survey questionnaire and anthropometric survey was administered to 1150 sample households in 23 clusters by the surveyors.

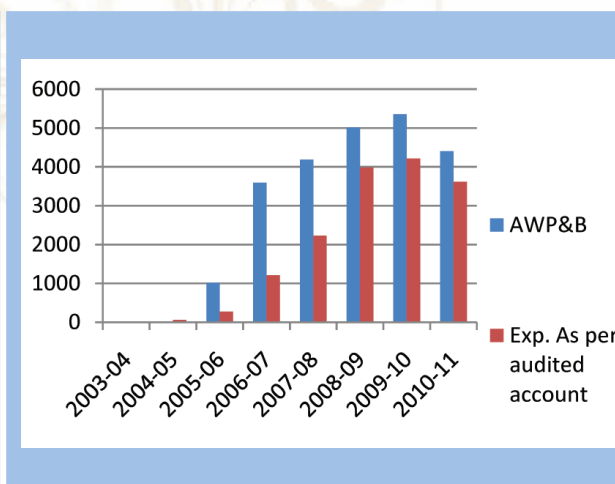
Similarly during 2011, the RIMS midterm survey was conducted by the PSU by hiring services of enumerators. This survey was conducted in 30 clusters covering 30 blocks of 7 districts. The data for both baseline and midterm was entered into the RIMS software and the report is under preparation. Besides, RIMS outcome report for the year 2010-11 have been submitted IFAD country office. This was prepared from the MIS data collected from the field and consultative meetings with the field units.

9.4 Annual Outcome Survey

The annual outcome survey of OTELP was conducted during 2011. The survey was adopted the standard prescribed by IFAD. It was a sample survey covering 200 randomly selected beneficiary families from the programme villages and 100 non beneficiary families from non-programme villages. This study provide an indicative view of the programme's impact over various developmental indicators in a with-without situation. The study report was published separately.

9.5 Year wise Financial Progress

Financial Year	Approved AWP&B	Exp. As per audited account
2003-04	4.00	4.38
2004-05	4.00	57.96
2005-06	1016.97	273.07
2006-07	3588.76	1209.69
2007-08	4184.45	2231.35
2008-09	5013.16	3982.07
2009-10	5358.9	4214.42
2010-11	4400.00	3616.23



9.8 Financial Progress by Components

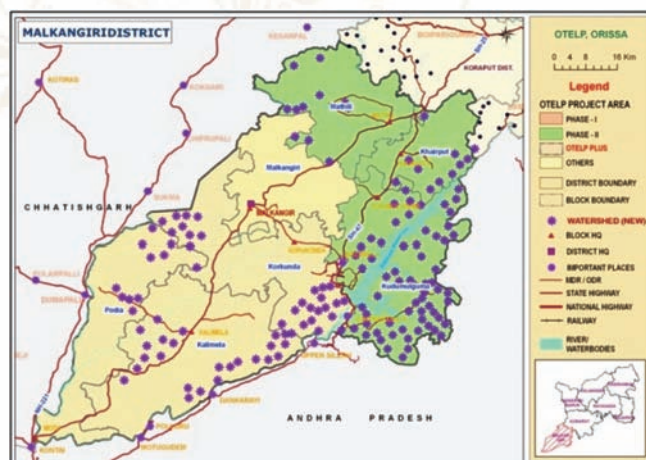
Sl. No	Programme Component	Expenditure As On 31/03/201 (Amt. in Rs. Lakh)		
		Programme	Beneficiary Contribution	TOTAL
1	Programme Management	1097.12	0.00	1097.12
2	Capacity Building For Empowerment	1637.89	1.29	1639.19
3	Livelihood Enhancement	6377.29	624.56	7001.85
4	Participatory Forest Management	409.43	31.39	440.82
5	Support for Policy Initiatives	2.73	0.00	2.73
6	Community Infrastructure fund	518.59	82.29	600.88
7	Development Initiative Fund	288.02	15.05	303.07
8	WFP Food Consumption	1513.14	0.00	1513.14
9	Food Handling	128.72	0.00	128.72
TOTAL Expenditure In Rs.		11972.94	754.58	12727.52

OTELP Plus

Adoption and Scaling up by Govt. of Odisha.

The demands from the bottom and the learning of OTELP and its impact over tribal people pleased the Govt. of Odisha to extend the programme into additional areas in the existing districts. 251 MWS covering nearly 700 villages in Malkanagiri and Koraput districts have been approved and launched. In the districts of Kalahandi, Kandhamal, Gajapati, Nawrangpur and Rayagada, the proposals are under formulation and the implementation will start by end of 2011. This new extended programme named as **OTELP Plus** with state government funding will operate in the uncovered micro watersheds. This programme will address the key livelihoods issues of tribal families in selected remote villages. Like present OTELP, it will adopt a seven years project cycle with an investment of more than Rs18000.00 per ha of treatable area. The state government will finance partly from the state plan and the rest will be sourced from various mainstream development programmes like MGNREGS, BRGF, RKVY, NHM, Biju KBK etc. These funds will be routed to the respective Village Development Committees through the ITDAs.

The present coverage of the programme in is as follows:



Sl. No.	District	ITDA	No. of Micro Watersheds to be taken up under OTELP Plus	Area (in Ha.)
1	Koraput	Koraput	102	51000
2	Gajapati	Paralakhemundi	80	40000
3	Kandhamal	Baliguda	50	25000
4	Kalahandi	Th. Rampur	50	25000
5	Nawrangpur	Nawrangpur	50	25000
6	Malkanagiri	Malkanagiri	149	74500
7	Rayagada	Gunupur	50	25000
8	TOTAL		531	265500

The programme will partner with Non Govt. Organizations (NGO) for providing facilitation and community mobilization support for the implementation of the programme. Besides, a dedicated professional team of 8 Subject Matter Specialists (SMS) will be positioned for providing programme implementation support to the NGOs and communities in a cluster of 50 micro watersheds. At the district level the ITDA, under the overall supervision of the District Collector and Chairman, OTELP will facilitate the implementation of the programme. At the state level, the Programme Support Unit under the overall guidance of the ST & SC Development Department will be responsible for implementation of the programme.

The programme will impact the lives of remotely inhabited tribal people in enhancing their access to basic entitlements, nurturing their village institutions and improves capacities to adopt innovative interventions for increase of income from agriculture and allied sectors. Basic infrastructures like irrigation, land allocation and development, storage and processing centers, drinking water and sanitation etc. will be the focused interventions under this programme. Skill development activities will be taken intensively to create employability among unemployed youths. It's expected that after the completion of the programme, the socio economic development of these communities will be accelerated.



The honorable Chief Minister of Orissa has launched the OTELP Plus on 19th April, 2011 at Koraput and dedicated this programme to the tribals of 700 plus villages in Koraput and Malkanagiri. He has also advised to other tribal concentrated districts to develop similar proposals which will be subsequently included under the programme.



Communication :

Programme Support Unit

Orissa Tribal Empowerment and Livelihoods Programme
2nd Floor, TDCC Building, Bhoi Nagar, Bhubaneswar - 751 022
Phone : 0674 - 2542709, 2541772 (Fax)
E-mail : support@otelp.org, Website : www.otelp.org