



Odisha Tribal Empowerment and Livelihoods Programme

ST & SC Development, Minorities &
Backward Classes Welfare Department
Government of Odisha



Securing Lives By Ensuring Livelihoods

Annual Progress Report 2015-16



Enabling poor rural people
to overcome poverty





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PREFACE



The Goal of OTELP is to empower the tribal, enabling them to enhance their food security, income & improve the overall quality of life through sustainable exploitation of the natural resources at their disposal and through off farm/non-farm enterprises.

I am pleased to report another year of progress for OTELP. The programme fundamental strategy has remain unchanged, and our core focus has remain unchanged . Through a process of success and challenges in reforming the programme, it has delivered better, more sustainable results.

It gives me immense satisfaction to see the programme received appreciation on its success. Acknowledgement from State and Central Govt. , ensuring the project financial sustainability and believing that empowered and committed field staff will take the project ahead for large scale replication has been one of the best achievements. The more satisfying is that the programme has been recognized as a model that can be adapted to overcome the development challenges in conflict areas.

I take the pleasure to express my deep gratitude to all my team members at PSU & ITDAs, Facilitating NGOs, stakeholders and particularly to the community members who extended all kinds of support for implementation of the programme. Their consistent endeavors have been the driving force behind the programme performance. As we look to the future, concerns over continuance of sustainable development after exit of the programme ; it is challenging ,of course not impossible to overcome.

I believe that challenges will present opportunities and that OTELP , well placed to make most of them . I wish the entire team and the programme in attending its objective for benefit of the tribals of Odisha and take forward OTELP to reach a new high in the days to come.

A handwritten signature in blue ink, appearing to be 'S. Prusty', is positioned above the printed name.

Srikanta Prusty, IAS
Programme Director



Securing Lives By Ensuring Livelihoods



Chapter 1

1.1 Introduction

The Odisha Tribal Empowerment and Livelihoods Programme (OTELP) is being implemented by the Scheduled Tribe & Scheduled Caste Development Department of Govt. of Odisha with financial aid 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”.

The core objectives framed to attain the Programme goal are to;

- Build the capacity of marginalized 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;
- Build on the indigenous knowledge and values of tribal and blend these with technological innovations to ensure a speedier pace of development.

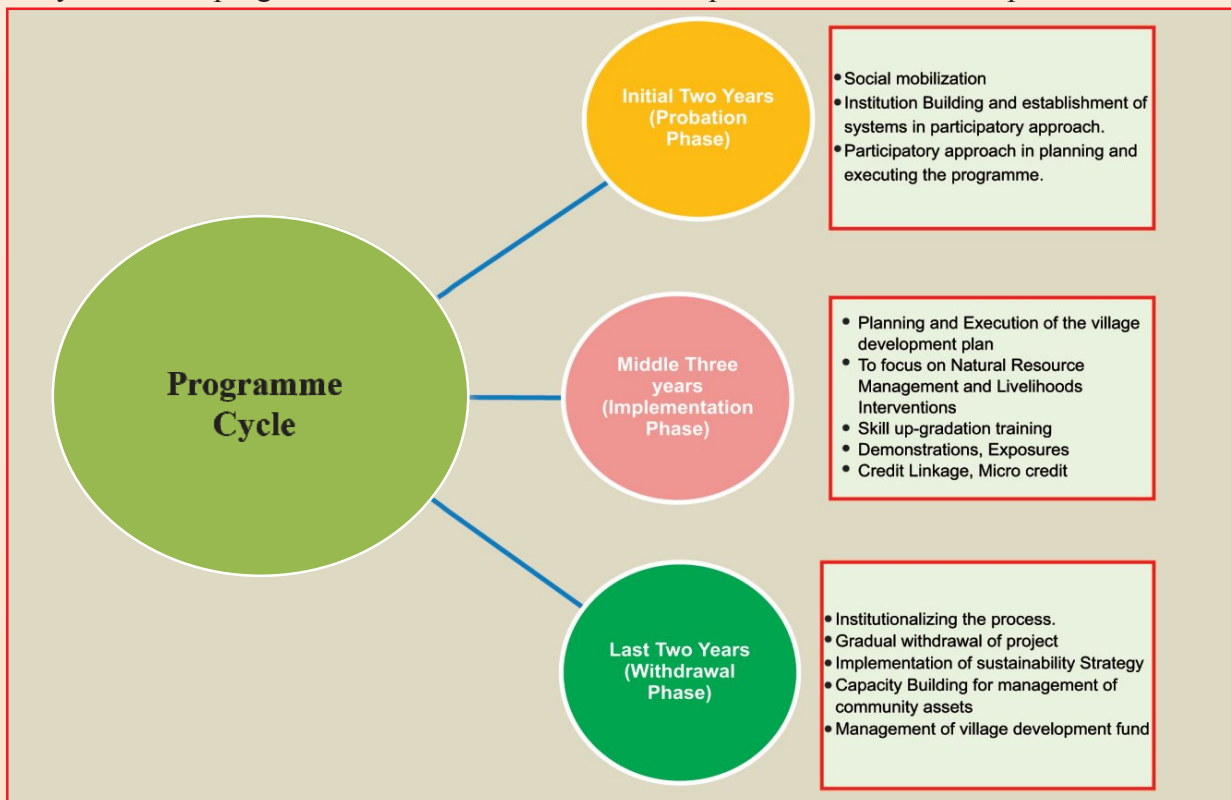
The programme is being implemented in 3 phases. The Phase I of the programme was completed in 2007. The implementation of Phase II was started from 2008 based on the recommendations of the Phase I Mid Term Review Mission conducted during September, 2006. For both the phases, Hon’ble Chief Minister of Odisha S.J. 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. Subsequently, basing upon the introduction of the programme lately in Phase II districts, the programme was further extended to 31st March, 2014. Further the programme is extended till September 2016 as it received additional funds from IFAD Rs. 90.20 crores.

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



The programme adopts strategic participatory approach among all stakeholders. Communities are considered as the primary stakeholders who are facilitated by the FNGOs followed by technical backstopping from ITDA & PSU. The programme basically aims upon GO & NGO partnership mode for adding synergetic effect in order to work jointly for enhancing the capacity of the communities to take up sustainable livelihood activities.

The programme adopts an integrated micro watershed approach covering a cluster of 10 to 12 micro watersheds situated contiguously with an approximate area of 500 ha. The selection of the micro watersheds is made basing upon the boundary of one set of 10-12 micro watersheds which is 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, the real implementation phase comes next for a period of three years and the last two years of the programme is known as consolidation phase/ withdrawal/exit phase.



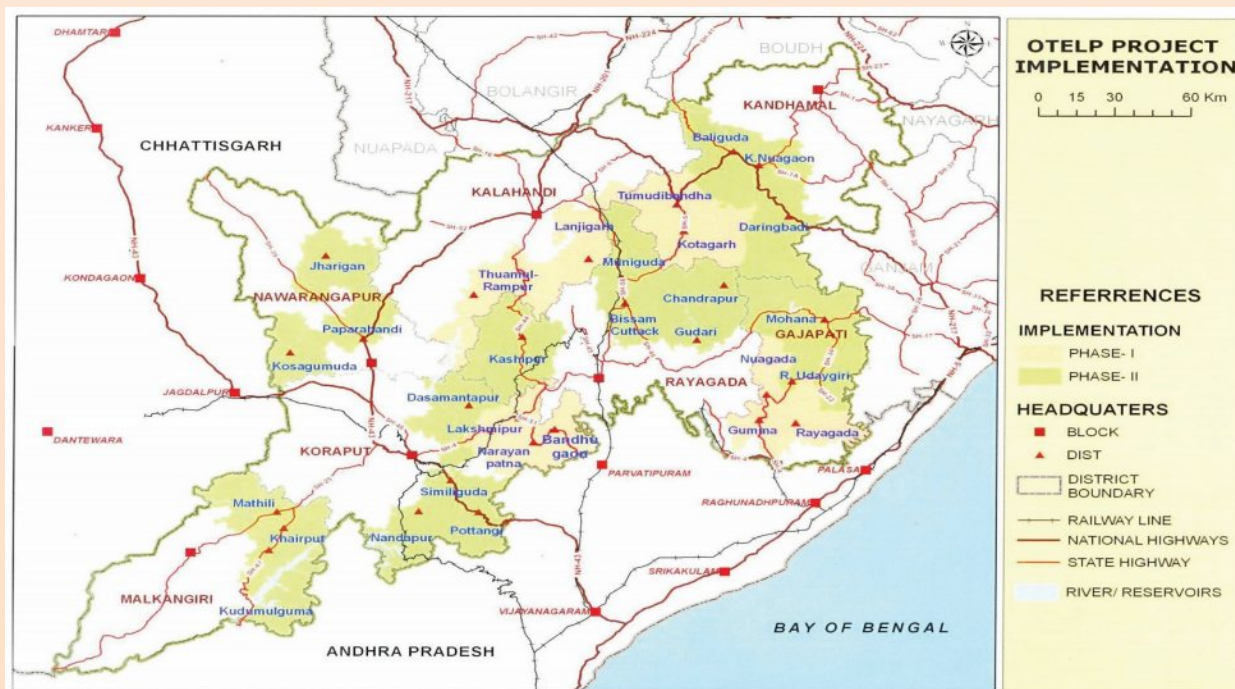
The programme aims to enhance the natural resources based livelihood activities of the poor tribal community with the available skill. The work participation of the tribes in the programme areas include wage labour, agriculture, sale of NTFPs, migration etc. and the intensity of the above activities are different basing upon the family economic status. The programme constantly endeavors to enhance all kinds of livelihood creating wage employment. This boosts them in earning direct cash and part of the cash paid through food grains. This helps in providing food security to the tribes round the year. 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 in shape of 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.

1.2 Programme Area and Communities

The programme is operational in 30 backward blocks of seven districts of south west Odisha 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. Implementation in Phase I villages are completed and villages under Phase II are now under implementation.

Map of programme Areas



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 324 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	231	35482.47
Gajapati	Paralakhemundi	60	163	31939.24
Kandhamal	Baliguda	59	174	25902.25
Kalahandi	Th. Rampur	59	158	25800.00
Nawrangpur	Nawrangpur	30	55	15420.64
Malkanagiri	Malkanagiri	30	85	15804.00
Rayagada	Gunupur	50	176	25019.68
	TOTAL	358	1042	175368

Source: MIS 2015-16

1.3 Demographic Profile

The programme targets 255661 people out of which half of the populations are women. 75% of these populations are schedule tribe. The major tribes included under the programme are Soura, Lanjia Soura, Kondha, 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 11% 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	72	71	10	9	18	20
Gajapati	18333	18542	99	99	1	1	0	0
Kandhamal	16428	16486	64	65	28	27	8	7
Kalahandi	13864	14216	74	77	21	19	5	4
Nawrangpur	22372	22287	63	62	11	11	25	27
Malkanagiri	9123	8788	84	84	6	6	10	10
Rayagada	19033	18067	71	73	29	27	0	0
Total	127979	127682	74	75	15	14	11	11

Source: MIS 2015-16

The regions covered under our programmes are poverty stricken and backwardness. It is characterized based upon land holding and access to various assets. However 68% of targeted families fall in BPL category as per the govt. records but in reality all families lies in the same line. The table also speaks about 24 % of households do not have land. To provide them sustainable livelihood option is the big challenge before programme. Incidence of poverty is very acute in the programme locations. Tribal economics 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 hector land holding. Nevertheless, 21% of targeted family's



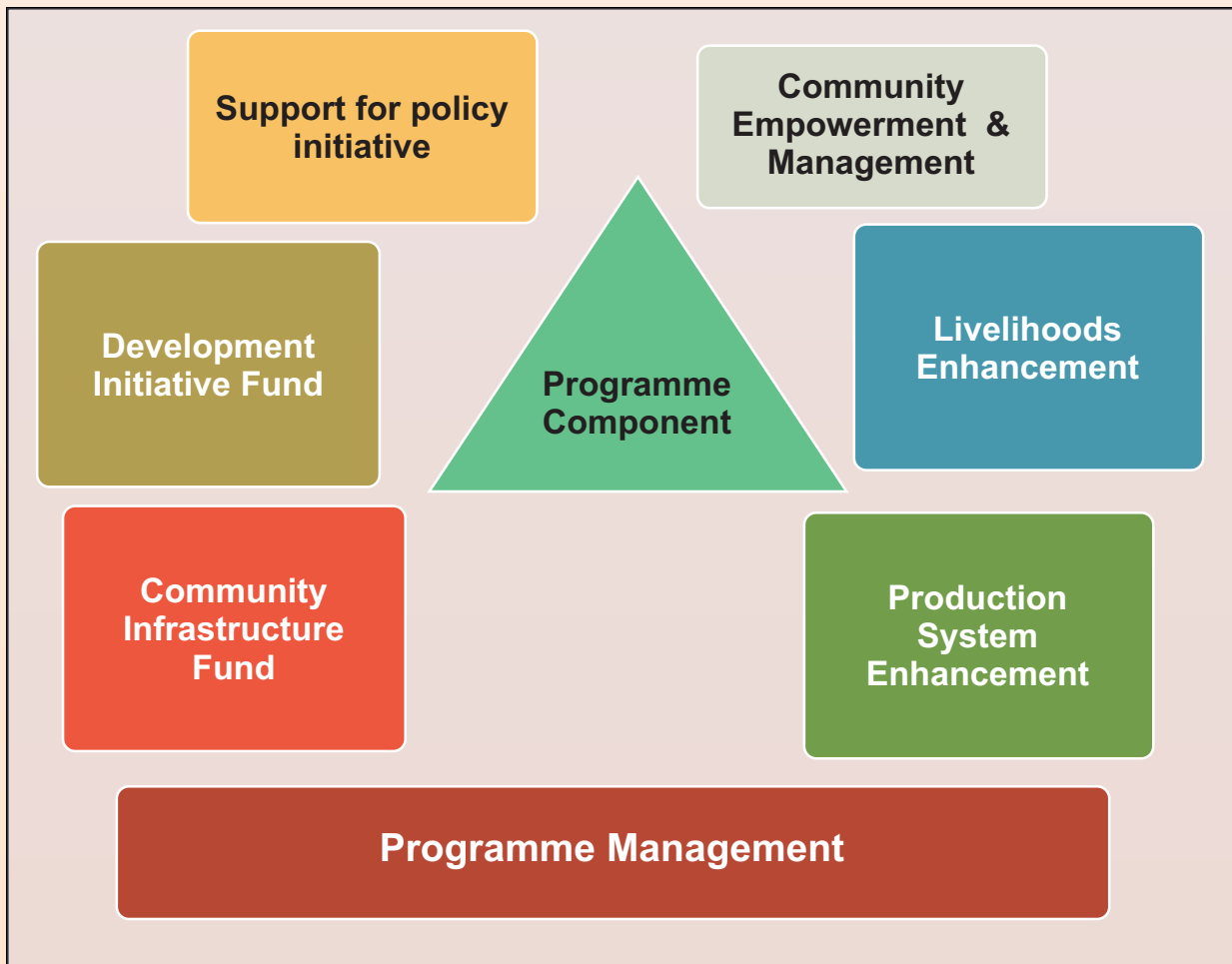
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situation is even worst as they do not posses any land. Livelihoods improvements of these families are key challenges before the programme. The following table depicts the district wise targeted beneficiaries under OTELP & OTELP Plus.

Particulars	OTELP			OTELP Coverage	OTELP Plus
	Phase I	Phase II		Phase-I + Phase-II	(2011-2018)
	(2004-2007)	(2008- 2013)			
Districts	Koraput, Gajapati, Kalahandi, Kandhamal	Koraput, Gajapati, Kalahandi, Kandhamal	Nawrangpur, Malkanagiri, Rayagada	Koraput, Gajapati, Kalahandi, Kandhamal, Nawrangpur, Malkanagiri, Rayagada	Koraput, Malkanagiri, Gajapati, Nawarangpur, Kalahandi, Kandhamal, Rayagada Keonjhar and Mayurbhanj
Blocks	10	9	11	30	33
No of Micro-Watershed	135	113	110	358	585
No of Villages	390	346	306	1042	1566
Treatable area (in ha)	63219.43	55904.53	56244.32	175368.28	310157.73
Total Households (HH)	19481	15129	21570	56180	82353
ST Households	16301	10438	15462	42201	61420
SC Households	2360	2276	3433	8069	9130
BPL Households	16277	10314	12883	39474	36446
Landless Households	4990	2935	4470	12395	3023
Vulnerable/Des titute HH	3101	1546	1474	6121	12450
No. of FNGOs	12	11	11	34	49 + 1 Consortium

Source: MIS 2015-16

1.4 Programme Focused



1.5 Institutional Framework for Implementation of the Programme

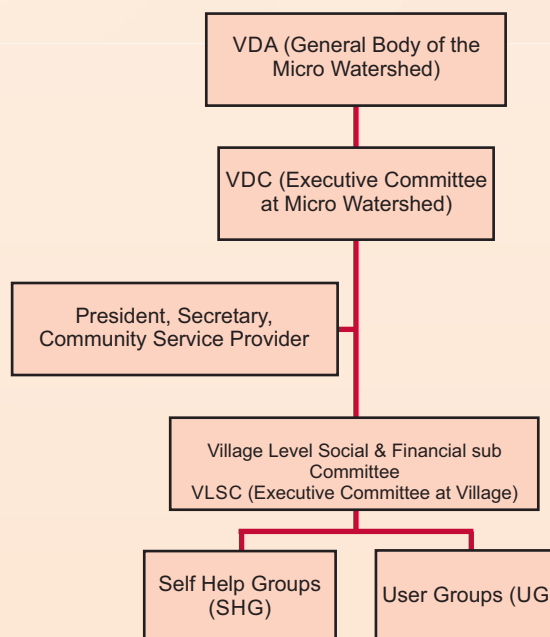
The programme adopts a public private and community partnership approach in implementation of the activities. In this PPCP mode, community have taken the lead role in planning, executing, monitoring and evaluating the programme where as the government provides the technical assistance and support, and the NGOs play the role of facilitator in mobilizing community and empowering them. The programme is implemented through SHG, UG and CIG.

Name of stakeholders	Roles & Responsibility
Community	Planning, implementation, monitoring & evaluation, governance, documentation.
Non-Government Organization	Capacity building, facilitation for planning, technology transfer, handholding support for implementation
Government	Technical Assistance and Policy Support
Donor agency	Financial support along with technical inputs & policy support

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The programme follows the guidelines prescribed by the MoRD. It gives trace on all the families covered within the geographical boundary of one micro watershed. It consists of two to three villages termed as Village Development Association (VDA) and it needs to be registered under society act 1860 to be treated as VDC where all the adult members are part of this association. VDC is the Executive body of VDA. This executive body comprises of 15-20 members.

There are various community based organization promoted through the programme such as SHG, VDC, VLSC, UGs, CIGs etc. and managed by the community itself in sustainable manner. In all cases women are included on priority basis to empower them for taking up livelihood activities to lead smooth and better life with dignity. All these institutions are responsible for taking up implementation of developmental activities at grass-root level.



We Believe in:

- Grassroots democracy
- Grassroots action
- Learning by doing
- Building on their Skill & knowledge
- Managed, Owned & Controlled by Community
- Maintain Transparency
- Participatory approach
- Involve all stakeholders

Chapter 2

Capacity Building for Empowerment

Odisha Tribal Empowerment & Livelihoods Programme (OTELP) has been graduated from 1st phase to 2nd phase. Subsequently to newer districts and blocks of tribal dominated inaccessible remote pockets of Odisha as OTELP-Plus. Success of OTELP largely depends upon the capacity and skill of primary stakeholders in planning, execution and participatory monitoring. Accordingly, the programme underpins the need to build the capacity of the community members on their skill relating to thematic and managerial aspects. So keeping in mind on the programme core objectives and varied capacity building (CB) need of different stakeholders for effective implementation of the programme. The capacity building activities has been broadly categorized in to three main domains. There are as below.

- 1. Community Empowerment & Management**
- 2. Skill Development of Primary Stakeholders**
- 3. Capacity Building for Staffs of FNGOs & Other Support Agencies**

So a distinct element of the design of OTELP is the Capacity Building component that exists as a backbone to the project. From the PSU to village level institution, at each stage there is a group of individuals that is playing a critical role. Each of these groups must function well if the project objectives are to be achieved. The most important group whose capabilities have to be built are the village community. The ultimate aim of formulating CB strategy for OTELP



is aimed towards empowerment and livelihoods security of target communities. It is therefore important from programmatic point of view to ensure that all the different actors in the programme have the capacity to do their jobs well and eventually lead towards the outcome.

This strategy also underlines the strength of the CBOs and community service providers, who are the key factors for successful implementation of OTELP. These community level workers promoted as service providers at the local level to transfer skills to the communities.

The programme has fixed two years period meant Community Mobilization during the beginning of the programme in order to ensure a vibrant and informed community.

2.1 COMMUNITY EMPOWERMENT & MANAGEMENT

OTELP is a community driven participatory developmental programme. Entire programme is planned, executed and monitored by the communities. Numbers of community based organizations (CBOs) are formed/strengthened for optimum utilization of resources in addressing the issues of tribal empowerment & food security. The representatives of village level institutes through regular sensitization camps, trainings, exposure visits and through interaction with other communities, who have practiced the same earlier have acquired great deal of understanding on the programme components, implementation modalities and a great sense of effective management.



Care has been taken for all sorts of CB inputs such as trainings, exposures, cross learning's, community meets, hand holding support etc. which are inevitable for preparing the communities to internalized the programme components, implementation modalities and skills required for effective management of the CBOs in a sustainable way which are to be covered under the head of Community Empowerment and Management.

Capacity Building inputs under Community Empowerment & Management during the probation phase of programme cycle aim at generating the awareness among the community members and building the community based organizations. Similar inputs are continued till the end of the programme cycle. However, during the consolidation phase, more attention is given on sustainability of the institutions and the capacity of community for effective management of assets created.

2.1.1 Community Mobilization & Empowerment

Series of community mobilization activities have been taken up in the programme villages so as to sensitize the communities on various developmental oriented issues including the different schemes/ programmes of Govt. and other non govt. organizations. Villagers have been oriented on the expected benefit of the programme and the modalities of implementation through meetings, sensitization camps, cultural shows, wall writing, hoardings etc. A series of community mobilization activities have been taken up on different schemes/ programmes of Govt. and other non govt. organizations, on tribal rights ,community mobilized for participation activities like human health camps, Animal camps, Soil testing , Seed treatments campaigns organized by the Govt. of Odisha / Govt. of India.

In order to enroll all households under SHG, campaign mode drive have been initiated to include at least one member from each households. Initiatives were taken to strengthen the SHGs onwards with continuous CB measures meant for the individual members and group. Steps have been taken to federate the SHGs for functioning as a apex institute. For preparation of village development and livelihoods plan (VDLP) the community members were facilitated in order to enable them to prepare prospective plan for the future. Community was sensitized on their land right issues through various training/sensitization meetings on schemes/acts like OPLE, OGLS, FRA, Vasundhara etc. Communities have take up the benefit of Govt Schemes and programmes for the village through the support of PRIs member also as a part of the village development committee. This ensures OTELP area villages to take various developmental interventions in a more focused way. Exposure visits strengthened the community in gaining confidence and positiveness for implementation of various interventions of the programmes in their village.



Communities based institutions like SHG, VDC, VLSC, VSS etc. were capacitated through trainings on the areas of leadership, group dynamics, accounts, organization management, managing convergence etc. This ensures successful implementation of the programmes. A quick snapshot of different trainings and other relevant activities that were undertaken during the project period are presented in the table.

Activities	During 2015-16	Cumulative Total Up to March,16
Community Mobilization (Health, Camp/ Awareness Camp/ Animal Health, Camp/ Video Shows/ Cultural Programmes/wall writing etc.	90	5661
Training Programme for SHGs (Leadership, Group Dynamics, Accounts, organizational, Management etc	25	5152
Training Programme for VDCs/ VLSC/ UG (Leadership, Accounts, organizational management, Tribal Rights, Convergence etc.)	74	6036
Total	189	16849

2.2 BENEFICIARIES SKILL DEVELOPMENT

Capacity Building inputs under this sub component include trainings and exposures in order to upgrade the skills, knowledge attitudes of the beneficiaries (primary stake holders) for execution of different activities under the programme. This helps in enhancing the livelihoods such as production enhancement (Land & Water, Agriculture, Horticulture, Pisci-culture, Participatory Forest Management (PFM), Community Infrastructure (CIF) etc. and Business



Development Plan for taking various income generating activities by utilizing the RFS. Thus the capacity building narrow down the gaps between the existing skill base and the required skill base for taking up the activities selected by the communities in order to enhance their livelihood. Need based trainings are planned and incorporated in the Annual Work Plan & Budget. The training or exposure under this is mostly conducted before the intended activity is taken up at the village level.

Various resource organizations/agencies/individuals have been identified under different thematic areas jointly by the staff from ITDA and FNGOs. ICAR institutes, State training Institutes under various departments, Krishi Vigyan Kendras and other private owned training institutes were tied up with OTELP programme districts. In some training, resource persons support from various line department & local NGO is also taken. The various training programme conducted are presented in the following table.

Activities	During 2015-16	Cumulative Total Up to March,16
Training and exposure under Land & Water Management	7	1684
Training and exposure on improved practices of Agri / Horti, PFM	56	2952
Training and exposure on improved rearing practices for Livestock & Aquaculture Development	27	1472
Training and exposure on preparation of business plan and implementation of Non Farm Activities	5	1701
Vocational Training to Youth	1	320
Total	96	8129

2.2.1 Skill Development through Placement Linked Vocational Training Programme for Unemployed Youth

The 40% of youth between the age group of 18 to 35 years of the total targeted population of OTELP operational area are unemployed. Therefore, they invariably migrate to urban areas in search of work due to the scarcity of employment opportunities in the village areas. The school dropout rate in these areas is also alarming. Since the dropout rate is high and these youth lack of qualification, there is a limited scope for employability. Rural youth capital is one of the major inputs for the improvement of the quality of life of the rural community but it is not true when they migrate to other areas to earn a measly income of



Rs.50 to 60 per day which becomes difficult for them to meet the basic necessities of life.

Item/Details/ Particulars	Unit(No)	Cumulative up to March,16
Youth selected for training	No	10013
Youth trained	No	3044
Females trained	No	488
Males trained	No	2556
Female youth placed in jobs	No	252
Male youth placed in jobs	No	1783

In keeping with the vision of the ST & SC Development Department, OTELP embarked upon a strategy to provide short terms skill development and placement related training programmes for youth of OTELP villages. The training programme has equipped the rural youth of OTELP villages with enough marketable skills and many of them have been capacitated to secure employment in the organized sector or have been able to set up micro enterprise for self employment. The trades which attract these unemployed youth include Masonry, Gardener, Grafting, Beekeeping, Mushroom production, Pisciculture, Housekeeping, House Keeping, Tractor & Power tiller and 4 wheeler driving, Mobile repair, Computer Training, Fitter and mechanist, Tailoring , Plumbing, Welding, Carpentry etc. About 1100 nos. of youth have been gainfully employed after getting this training programme in nearby cities and some in outside state. OTELP is conducting these training programmes through convergence with the Odisha Scheduled Caste and Scheduled Tribe Financial Development Corporation (OSFDC) through the empanelled training providers. Besides OSFDC, OTELP has also converged with Khadi and Village Industries Commission to impart various skill

development training programmes. These youth according to their qualification and interest take part in the trainings in phased manner depending on the vacancies. This has created a ripple effect with youth from the adjoining villages demanding vocational training with a view to enhance their employable skill. 10,013 nos. of unemployed youth have been identified from OTELP operational areas out of which at present 2239 unemployed youths have been trained and 140 candidates are currently under training in different training institutions. The details of the training programme is given in the following table district wise.



OTELP VOCATIONAL TRAINING-Trained Status-April,2015

ITDA	Trades	No. of Candidates Trained
Nawarangpur	Domestic BPO	10
	Desktop and Laptop Maintenance	36
	Driving	176
	Security Guard	7
	Data Entry Operator	46
	Electrician	13
	Tailoring	22
	Hard ware	36
	Mason	74
	Plastic Processing Operator	12



	Total	432
Gunupur	Domestic BPO	1
	Desktop and Laptop Maintenance	14
	Driving	30
	Electrical and Electronic Home Appliances	6
	Tailoring	51
	Mobile repairing	3
	Hard ware	14
	Welding	33
	Electrician	48
	Fitter	2
	Total	202
	Th.Rampur	Tailoring
Driving		12
Nursing		5
Total		28
Malkangiri	Driving	51
	Tailoring	85
	Brick Making	178
	Mason	269
	Grafter	30
	Petty Contractor	39
	Total	652
Koraput	Security Guard	55
	Driving	67
	Mason	90
	Desktop and Laptop Maintenance	22
	Electrician	54
	Electrical and Electronic Home Appliances	14
	Hard ware	22
	Tailoring	123
	Petty Contractor	83
	Total	530
Paralakhemundi	Security Guard	34
	Driving	180
	Data Entry Operator	73

	Tailoring	91
	Fitter	26
	Mobile repairing	2
	Electrician	62
	Domestic BPO	12
	Nursing	16
	Mason	2
	Plastic Processing Operator	22
	Welder	4
	Tally	3
	Beauty Care	3
	Hospitality Management	10
	Total	540
Balliguda	Data Entry Operator	304
	Fitter	49
	Welding	61
	Desktop and Laptop Maintenance	12
	Domestic BPO	15
	Driving	157
	Hard ware	12
	Electrician	15
	Tailoring	35
	Total	660
	Grand Total	3044

2.3 Capacity Building for staff of FNGOs and other Support Agencies

Effective implementation of programme activities by the villagers in a participatory approach largely depends on the quality facilitation support from the staff of facilitating non government organizations (FNGOs). The Experts, Team Leaders, WDTs, Community Service Providers are solely responsible for necessary facilitation to the village



communities. Hence, it becomes indispensable to build the facilitation skill of the FNGO staff. They are adequately trained in regular intervals on the respective thematic areas so that they in turn impart the same to the community members.

FNGO staff & Community Service Providers associated with programme have been trained on participatory

planning process, facilitative role in micro planning processes, understanding on governance, gender and equity issues. They are also exposed to different govt. & non govt. schemes relating to empowerment and livelihoods. Besides each expert/WDT is adequately educated on the specific role they have to play and also on the subject matter that he/she is to be deal with.

Similarly the capacity of the staff of line departments and the staff of other organizations operating in the programme areas has also enhanced in order to develop skill base at the local level.

Adequate coordination have been established with these resource persons to cater to the diversified training need of the primary stakeholders.

The PSU has organized number of exposure visit for staff of ITDA and FNGO to ICRISAT, Bihar Rural Livelihoods Promotion Society, MYRADA, NM Sadguru Water and Development Foundation, and other Grassroots Institutes for different thematic aspects of programme components. In different times, emphasis was given to expose different stakeholders to old existing OTELP areas in order to enable the participants a clear understanding of the modalities of community driven implementation of the programme.



Types of Training	During 2015-16	Cumulative Total Up to March,16
No. of Trainings for FNGO staff	5	389
No. of training on Community Mobilization and Institution Building for FNGO Staff	9	410
Training for line Dept. Staff/Support Organizations	2	198
Total	16	997

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 organized by the PSU at regular intervals. The details of training organized during last one year for various facilitating agencies are given in the table.

Series of trainings, workshops, seminars, exposures organized on various thematic areas, policy issues and also facilitated the district team to organize similar training programmes.

PSU has developed different module and manuals on Book Keeping for SHGs, Gender, Communication, MLP, Land & Water Management etc.

Specialized training programmes for staff of FNGOs, ITDAs were organized on various aspects. To mention a few:

- Training Programme on Improved Rice Technology at Central Rice Research Institute, ICAR, Cuttack, Odisha
- Training on implementation modalities for convergence programme through MNREGA in OTELP areas at Rambha, Ganjam, Odisha
- Training on implementation of OTELP Plus and sharing of the process guideline at Mohuda, Ganjam, Odisha
- Training on preparation of Compressed Stabilised Earthen Blocks at ITI, Malkanagiri, Odisha
- Training programme on” Sustainable livelihoods through tuber & fruit crops” at RC-CTCRI(ICAR) and CHES(ICAR), Bhubaneswar, Odisha
- Training programme on Micro Enterprise Management & Marketing by MART, Bhubaneswar, Odisha
- Training programme on Integrated Watershed Management by OPDSC, Rayagada, Odisha
- Training programme on Farm Mechanisation in association with Directorate of Agriculture & Food Production, Bhubaneswar, Odisha
- Training Programme on Integrated Natural Resource Management(INRM) based VDLP having land & water resource along with farming system development at IMAGE, Bhubaneswar, Odisha



- Training Programme on Mainstreaming Gender in OTELP at CYSD, Bhubaneswar, Odisha
- Training Programme on procedural aspects of Cooperative promotion and understanding OSHCA 2001 at PSU, OTELP, Bhubaneswar , Odisha
- Exposure visit cum Training Programme on Integrated Crop Management in Grain Legumes at ICRISAT, Patancheru, Hyderabad, Andhra Pradesh
- Exposure visit on strengthening of CBOs, promotion of federation at apex level & establishment of Micro Enterprise by Bihar Rural Livelihoods Promotion Society, Gaya, Bihar
- Exposure to people's institutions for watershed management & community managed resource centre facilitated by MYRADA at Lekenahalli, Bangarpet block of Kolar district , Karnataka.
- Exposure visit on INRM & community managed activities taken up in tribal areas facilitated by NM Sadguru Water & Development Foundation, Dahood, Gujarat
- Exposure cum Training on Compressed Stabilised Earthen Blocks at Auroville Earth Institute, Pondichery
- State Level Workshop on Knowledge Management & Knowledge Sharing at Hotel Sterling Resorts, Puri, Odisha
- National Workshop on Livelihoods Promotion: Co-creating with Private Sector in association with MART at May Fair Lagoon, Bhubaneswar, Odisha
- National Conference on Tribal People, Natural Resources and Human Well Being: Emerging Tribal Development Paradigms in a period of Rapid Changes in India in association with IFAD, New Delhi at Hotel Sterling Resorts, Puri, Odisha
- Exposure to Micro Finance India Summit "Reconstructing the sector: Brick by Brick" at Hotel Le Meridien, New Delhi
- Exposure to Livelihoods India Conference "Role of Civil Society in Livelihoods Promotion: A Paradigm Shift" at Hotel Le Meridien, New Delhi
- Exposure to International Conference on Tropical Roots and Tubers for Sustainable Livelihood Under Changing Agro-Climate (ICTRT 2013) from 09-12 July,2013 at Hotel Mascot, Thiruvananthapuram, Kerala

Livelihoods Enhancement

Historically, tribal communities were characterized by a lifestyle distinct from agrarian communities. They subsisted on different combinations of shifting cultivation, hunting and gathering of forest products. All activities linked with forest. Their cultures celebrated and fostered this close bond with nature while also emphasizing community ownership and consumption; closely-knit kinship structures and minimal hierarchies. In tribal dominated areas, ecological degradation, erratic rainfall and high risk of drought have resulted in food insecurity have been a cause of increasing out-migration. A small land base, low agricultural productivity and low-income levels led to rising in indebtedness and trapping tribals into a vicious circle of exploitation. The life of tribal is increasingly vulnerable due to persistent lack of assured entitlements to their land resource.

Livelihoods is 'sustainable' when it can cope with, and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities to the next generation and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term" (Chamber, R; Conway, G 1992). Tribal livelihoods can be grouped into three categories, namely (i) land based livelihoods that include agriculture, horticulture and NTFP (ii) livestock based livelihoods and (iii) micro-enterprises.

Livelihoods enhancement component of the programme takes care of all the above and consists of consists of the sub-components namely (i) land and water management, (ii) participatory forest management, (iii) agriculture and horticulture development, (iv) livestock and aquaculture production, (v) rural financial services and (vi) community infrastructure addressing the issues on poverty and provides alternative livelihoods options.

The fund under this component is for restoration of degraded Natural Resources and Regeneration and harvesting Natural Resources for sustainable livelihood support system for the tribals.

3.1 Land & Water Management

Being the largest component, land and water management aims to regenerated the degraded environments and foster better resource conservation and management with an aim to increase the carrying capacity of watersheds to provide sustain tribal livelihoods. The positive impacts include improved water Conservation and more environmentally sound and sustainable agriculture, through the control of run-off, enhanced soil moisture-holding capacity and better vegetative cover on degraded forestlands and hill slopes.

Attempts has been made to move from traditional soil and water conservation approach to integrated natural resource management approach focusing on production system enhancement on sustainable basis, blending enriched indigenous watershed systems and practices with the modern one.

This sub-component covers all site specific activities including mechanical structures and agronomic practices for conservation and restoration of soil and water resources such as creation of small water harvesting and recharging structures, development of the agricultural lands, drainage line treatment measures, soil conservation, conservation tillage, DCP, promotion of

improved agronomic practices of horticulture and agriculture in highly degraded lands to enhance productivity of land on sustainable basis.

3.1.1 Management of shifting cultivation patch



Loose Boulder Structure



Masonry canal



Scattered Contiguous Trench



Stone bunds in sloppy lands converting non arable land to arable



Combination of staggered contour trench with continuous contour trench

Shifting cultivation is an age-old practice which is locally known as the podu cultivation. Though practice of shifting cultivation is hazardous to environment, it forms the basis of life for tribals and their culture is built upon it. Many festivals and other such rituals revolve around the podu fields, because the tribes view podu cultivation not just as a means of their livelihood, but as a way of life. In interior inaccessible areas where sufficient land suitable for terracing is not available, shifting cultivation is the only system of cultivation which can be operated at the present stage of development, where tribal have little or no access to credit and extension. Shortening of cultivation cycle has taken place for a variety of reasons,. The innumerable muddy rivers flowing in the region tell the story of heavy soil erosion that is going on in the region.

Different crops such as millets, cereals, pulses and oilseeds are grown on shifting cultivation patches. Gradually the shifting cultivation cycle reduced to 3-4 years from 20 to 25 years due to population pressure resulting in massive soil erosion, siltation of reservoir, drying of springs, reduced fertility, heavy flood, water scarcity and deforestation.

Since shifting cultivation contributes substantially to the food baskets of tribal, it cannot be avoided completely. Alternatively, various attempts were made by the programme to improve productivity

of shifting cultivation patches and to reduce dependency on shifting cultivation which includes physical, agronomic and socio-economic measures.

Programme have made intervention on various mechanical measures like Stone Bunds, staggered trenches, continuous trenches and water absorption trenches and reinforced with appropriate plantations to reduce the run off velocity and soil loss from those patches so as to conserve soil moisture regime and improve its productivity. The major activities undertaken in hill slopes and shifting cultivation patches are as per the following table:

Activity details	Unit	During 2015-16	Cumulative Total Up to March,16
Mechanical Filter Strip/ Stone Bund	ha.	0	2956
Trench (CCT/ SCT)	ha.	246.105	6,789
Water Absorption Trench	ha.	0	317

Source: MIS 2015-16

3.1.2 Drainage line treatment

The programme area is located in South western region of Orissa, mostly comprising the hills of Eastern Ghats with highly undulating topography having numerous streams of first and second order. During monsoon, instant runoff passes through these streams causing severe erosion of the stream beds. These eroded soil, sand, stone and pebbles etc., damaging low laying fields. Hectares of paddy cultivated during kharif (Rainy) season in low lands (bahal and berna) gets damaged 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 mostly productive and fertile 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 the 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. The major activities undertaken are presented in the table below.

Activity details	Unit	During 2015-16	Cumulative Total Up to March,16
Gully Control Structure (EGP / LBS / LBCD/ BWCD)	nos.	12	80715
Masonry Gully Plug/ Gabions	nos.	0	29
Masonry Drop Structure	nos.	2	981
Nalla Bank Stabilization/Stream Bank Erosion Control	nos.	0	18
Retaining wall/ Guard wall	nos.	8	378

3.1.3 Land development

Surrounded by undulating topography, the cultivable lands are found in discrete patches. Up land and medium upland constitute about 85% of total cultivable lands in the programme area, contributing for a major chunk of income by growing Paddy, Niger, Millets, Maize and Mustard, vegetables etc.

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 yield. The farmers get about 25-30% of their income from these lands. Besides, crops grown in these patches are cash crops and also content nutritional values, it is important to treat these lands in order to increase its productivity.



30 x 40 model of land development



5% model supplementing irrigation to paddy field



Earthen field bund



Land levelling with stone bunds

The programme has facilitated the farmers to adopt various in situ moisture conservation measures to conserve moisture and top soil, retaining the soil fertility. The farmers are also facilitated for bund plantation, compost pit in field and improved farming practices to increase productivity. The major interventions for development of these lands are given in the table below.

Activity Details	Unit	During 2015-16	Cumulative up to 2015-16
Contour Bund/ Field Bund/Earthen Bund	ha.	1	8254
30x40 Model	ha.	0	526
5% Model	nos.	0	578
Terracing	ha.	0	76
Land Leveling	ha.	0	1597

3.1.4 Water Resources Development

The programme area usually receives annual average rainfall of about 1500mm which is more than the state and national average. In many programme blocks rainfall exceeds 2000 mm with highest rainfall of about 3000 mm. in Th. Rampur Block. Though this amount of rainfall is plenty, most of the rainfall goes away as runoff due to high intensity of rainfall and highly slopy terrain and inadequate rain water harvesting measures. All these parameters force the tribal to depend on rainfed agriculture resulting in uncertainty of crop production and yield.

The interventions for treatment of upper catchment, drainage line, land development in up and medium land are mainly meant for increasing the time of concentration of runoff by lengthening the flow path, providing more time for infiltration and thereby reducing soil loss and runoff intensity. As a result of these interventions, in many cases, there is visible increase in stream flow, flow duration in stream and moisture status in soil.

Programme has adopted the strategy to conserve, divert and harvest this excess runoff both surface and sub surface for productive use. As a part of this strategy, various types of water bodies and irrigation structures were promoted by the programme. Water bodies are meant to provide protective irrigation during kharif. The irrigations structures such as diversion weirs, check dam, canal etc. are constructed/renovated to ensure protective irrigation during kharif and also support post rain crops cultivated by farmers, resulting in increased cropping intensity and volume of production. There are evidences of crop diversification and improved cropping practices due to creation of additional irrigation facility.



Farm pond



Check dam



DBI Project



Dug Well

Water is tapped from perennial springs with filtration arrangement and provided to household through buried pipes. This not only mitigates the household needs, but also the surplus water is used for irrigating the backyards vegetable gardens to meet the family nutritional requirements. This also provides additional income to the tribal families and saves lot of time which was otherwise lost in fetching water from distant sources.

The presence of small mountainous streams and perennial springs in the OTELP operating villages offer a larger scope for diversion based water supply systems through buried pipes. The major advantages of buried pipe line system over open canal includes increased irrigation efficiency by minimizing water loss, more economic return per unit of water and much lesser operation and maintenance cost and time.

On recommendation of JRM on OTELP, buried pipe irrigation projects were also taken up in large scale which proved to be advantageous over traditional small scale irrigation systems in terms of durability and cost.



Outlet of a Diversion based irrigation project



Vegetable field irrigated by DBI

To cover more area under irrigation with the available water i.e. to increase water use and irrigation efficiency, the programme further facilitated micro-irrigation systems out of its own fund and in convergence with National Horticulture Mission, the details of which are discussed in chapter 4.2.3.

The major interventions made for development of water resources are given in the table

Activity	Unit	During 2015-16	Cumulative up to 2016
Check dam	nos.		541
Diversion Weir	nos.		172
Diversion based irrigation structure	nos.	146	366
Lift Irrigation projects (river/ open source/ bore well/ dug well)	nos.	218	666
Piped water supply project for domestic use & irrigation (gravity fed)	nos.		504
Piped water supply project for domestic use & irrigation (sanitary well/ bore well)	nos.		406
Field Canal / Earthen Canal (New)	nos.		488
Masonry canal (new)	nos.		418
Water Harvesting Structure/ Irrigation tank (New)	nos.		597
Farm Pond	nos.		1240
Percolation tank/ sunken pond	nos.		184
Irrigation well/ chuan (open)	nos.		1299
Hydrant project for upland irrigation & domestic use	nos.	5	29
Renovation of Open well / dug well	nos.		277

3.1.5 Biological Measures

Biological measures and practices are low cost measures in watersheds and meant for moisture retention and reduction of soil erosion. When combined with mechanical measures, it provides structural stability to

the mechanical measures and increases its effectiveness and life span. In addition to it, provides additional income to the farmers. All types of plantations, cover cropping, mulching etc. comes under this category.



Bund plantation stabilising earthen bunds and providing additional income



Horticultural plantation in uplands

The major activities under biological measures are presented in the following table.

Activity	Unit	Cumulative up to 2016
Forestry/ Mixed tree species plantation	ha.	2492
Horticultural plantation	ha.	1925
WADI model plantation	ha.	2954
Backyard Plantation	HH	9844
Bund / Contour Plantation	rmt.	637510
Avenue plantation	km.	90

Source: MIS 2015-16

3.2 Outcomes and Impacts: Land & Water Management

a. Conversion of non-arable land to arable land:

The land development interventions undertaken by the programme during the year benefited 7138 families by converting 2125.60 ha. non-arable land into arable. These families are cultivating paddy, maize, pulses, oilseeds and vegetables etc. and have increased their income. The details of output during the year and since inception of the programme are as per the following table.

Particulars	During 2015-16	Cumulative up to 2015-16
Non Arable to Arable (in Ha)	2125.60	13407.60
Households Benefited (Nos.)	7138	50044

Project MIS 2015-16

a. Creation of Additional irrigation Potentiality :

Water resources development helped in creating irrigation potentially to the non-irrigated land as a result of which additional land was covered under cropping which resulted in increase in cropping intensity.

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
2011-12	13974	14197	6756
2012-13	17131	18634	7405
2013-14	18789	20914	7865
2014-15	19475	23915	8745
2015-16	20074	24514	8745

Source: MIS 2015-16

The below table indicates that 2190 families are benefited by the irrigation infrastructures developed which created irrigation facility for 599 ha. of land during 2015-16.

Particulars	During 2015-16	Cumulative up to 2015-16
Additional Area Irrigated (in Ha.)	599	20074
Households benefited due to additional irrigation	2190	30247

Source: MIS 2015-16



Chapter 4

Production System Enhancement

Agriculture and Horticulture Development

4.1. Odisha is predominantly an agrarian State. Bedrock of Odisha economy is on agriculture and its allied activities. Agriculture and Animal Husbandry contribute 17.2% to the gross state domestic production and it provides employment and sustenance directly or indirectly to more than 70% of the state. The tribal community and other caste in OTELP areas, for them it is the single largest employment provider. The programme areas are mountaineers undue lately with hills and valley. The tribals are still in the age of sustenance agriculture. They have not been able to encash the benefits of modern agriculture technology. OTELP looks to sustainability, ecological, economical and social aspects in agriculture and allied sector. Priority has been given for technological improvement for increase in production and productivity of the crops that are suitable to the agro climatic zone. Biodiversity conservation of local varieties, up-scaling of the best practices and replication in other areas, crop diversification, promotion of nutritious crops cultivation of vegetables both in backward kitchen and commercial cultivation, practices of low monetary inputs, informal seed production and popularization of drudgery reduction, farm mechanization and equipments etc. are some of the major programme interventions for the year 2015-16.

4.2. Strategy for agriculture development in the context of climate change:-

Agriculture as a major land use has profound effects on natural environment. Climate changes are the major variation in temperature, humidity, precipitation and other metrological variable of a given region. The principal causes of climate change are a result of the green house gases (GHS) such as water vapor (H₂O), carbon dioxide (CH₂), Nitro oxide (N₂O) and Methane (CH₄). Due to climate change now a days the annual rainfall mostly confined to 4 months in a year and number of rainy days has been down from 120 to 90 days, besides being erratic the climate change has affect adversely the productivity and production of food grains in the programme areas.

OTELP Action Plan on climate change

- Promotion of drought and pest resistance crops and variety.
- Improved method of soil and water conservation.
- Bio diversity conservation of local varieties
- Alternate cropping pattern and promotion of C4 plants/ tuber crops
- Promotion of water efficient micro irrigation method.
- Increase area under perennial fruit plantation to help farmers against uncertain weather pattern which severally affects the field crops.

4.3. Cropping strategy Diversification of Cropping:-

In programme areas the rainfall is highly unreliable both in time and space with strong risk of dry spell at critical growth stage even during good rainfall years. Climatic condition in the hilly region put high demand unfarms water management. Water is the most limiting factor for agricultural production. In order to address moisture stress / drought like situation, the farmers of programme areas has been motivated to go for non paddy crops likes maize, jowar, ragi, minor millets pulses such as pigeon pea,

black gram, green gram, cowpea, horse gram, oil seed crops like groundnut, niger vegetable, tuber crop, spices like ginger, turmeric during the year 2015-16. Paddy areas of 1561 ha have been diverted to non paddy crops by 5928 farmers.

4.4. Inter cropping system:-

The main objective is to utilize the space between two rows of main crop. The crop has no competition between them. The intercrop is harvested before the main crop by the farmer get a benefit it also act as an insurance against the crop failure. The combination of legume and cereal crops have been promoted in ratio of maize plus cowpeas, 2:2, Yam Plus maize 1:2. Maize Plus runner bean 2:2. 1594 ha being promoted under programme in the year 2015-16 benefitting 6753 farmers. In some areas more than 4 to 5 crops are mixed and down this is a farms traditional practice of mix cropping. Cerds Plus minor millet plus pulses are mixed together as shown. 1594 Ha of upland and sloppy land covering 6753 farmers in difficult programme district have been achieved during the rainy season of 2015-16.

4.5. Sequential Cropping

A form of multiple cropping in which crops are grown on sequence on same field with the subsiding crops planted after the proceeding crop is harvested.

- **Under rain fed eco system**

Field pea/ black gram/kulethi/mustard/chick pea are grown after harvest of main crop paddy in the medium and low land. The crop successfully grown in the moisture retained in the soil after harvest of main crop mustard, black gram, kulethi are also grown after harvest of kharif maize in Koraput, Nawarangpur and Gajapati districts of programme areas. Instead of keeping the land fallow after the harvest of kharif crops, the farmers of programme areas get additional income from these crops. 12560 farmers of OTELP areas have taken up second crop of 2960 Ha rain fed ecosystem during post rainy season and 2015-16.

- **Under Irrigated ecosystem**

Irrigation potentiality has been developed in most of the programme villages through WHS, Check dam, Percolation tank, DBI etc. These water bodies have provides scope for taking two crops in programme areas rice-mustard/black gram/chickpea/vegetables, maize-Vegetables/mustard are general cropping pattern. In some programme pockets three crop patterns like Rice-vegetable-vegetable and vegetable-vegetable-vegetable are also taken by the farmers. 1356 Ha of crops has been taken up by 3258 farmers on irrigated ecosystem during the 2015-2016.

4.6. Introduction of new crops and varieties:-

There are significant changes in the cropping pattern in the programme areas with dissemination of advance production technology and the production and productivity of major crops have been enhanced during the year 2015-16. Programme also promoted both local rice and land races like Kalajeera, Machhakanta and Haldichudi, Finger millet, Matimadia, Bati Mandia, Sunamani, Kalakerenga, Kakaimundis, Badamandi & Foxtail millet, Mamisuan, Sanasuan, Badasuan along with other high yielding varieties : The crop and varieties introduced during the year 2015-16 are as follows.

Paddy - Khandagiri, Navin, Swarna Jajanti, MTU-IP, Surendra, Sahabhagi
Pratrikhiya



Maize -	PAC751, 3401, 3501
Ragi -	Bhairabi, Chillika, GPU-48, GPU-67, GPU-26, INDAF-9
Pigion Pea -	Asha, Kamica, Laxmi
Chickpea -	3GK-ii, ICCC 37
Black Gram -	PU-942 Ujala
Groundnut -	Devi
Nizer -	Deomadi I
Mustard-	Parvati, Anuradha, PT-303, M-27
Turmeric -	Lakedong, Roma, Surama
E. Foot yam-	Gajendra
Yam-	Odisha Ellite, Hatikhojia
Tapioca-	Vellayani-Hrushwa
Ginger -	Suprava, Suruchi
Brinjal -	Green Star, Blue Star, Annamallai, Pusa kranti, Pusa purple long
Cauliflower -	Konark, Pusa Deepali, Pusa Kalki, Pusa early
Cabbage -	Golden Akre, Pride of India, Pusa DrumHead
Runner bean -	Potangi Local, Raikia local
Radish -	Pusa chetaki, Japanees white,
Tomato -	Utkal Pallavi, Utkal Dipti, Utkal Kumari
Okra -	Praban Kranti, Pusa sawani, Utkal Gourav
Chhilli-	Utkala rashmi, Utkal Ava
Patato -	Kufari Jyoti, Kufri Lalima, Kufri Chandramukhi
Onion -	Agrifound, Dark red, Pusa Red, Agrifound light red, N-53, Nasik red
Pointed Gourd (Parwal) -	Swarna alaukik, Arca, Nilachal Kirti
Ivy Gourd (Kundur) -	Arka Neelachal Sabuja and AN Kumki
Spine Gourd -	Neechal Gourav
Bitter Gourd	Priya, Pusa visen, Coinbetolory

4.7. Practice of low cost technologies

Most of the tribal farmers of the programme areas are ultra poor they are not in a position for application of monetary agro inputs in order to enhance their crop production. Emphasis has given on practices of low cost technology such as ploughing across the slope, summer ploughing, timely sowing/planting, inter

cultural operation, thinning, application of organic manure i.e. vermin compost green manures, use of bio fertilizers, neem/karanja cakes, seed treatment and application of organic pesticides for management of insect and disease paste. These practices has also reduces the environmental hazards, thus accepted by the farmers. 20316 farmers are practicing low cost technologies and an area of 13920 ha during the year 2015-16.

4.8 Nutrigrains

- **Promotion of Millet Development**

In the programme areas major millet Sorghum and Pearl millet are cultivated in the hills slope. Out of two major millet crops sorghum (jower) is cultivated in more area than pearl millet. Ragi is a popular crop in OTELP areas as because is provides major food and nutritional security to the tribal's. In Programme areas the tribal mostly consume ragi at least once and twice daily. The programme promotes the local millet under the biodiversity conservation of traditional crops. The crops promoted are indicated below.

Crops	Popular local variety	Duration	Programme areas
Finger Millets	Mati Mandia Bati Mandia Suna Mani Kalakera	105	Koraput Rayagada Malkangiri Nawarangpur Kalahandi Gajapati Kandhamal
Little Millets	Mani Suan Sana Suan Ganjei local Bada Suan	85-90	-do-

- **RAGI DEVELOPMENT**

In order to generate consumer demand on nutri cereal millets based food OTELP gave emphasis on Ragi Development. Ragi is a popular crop in the tribal areas as because it provides a major part of food security to them. It is also highly nutritious. In the programme areas of Chilika GPU 67 are some of the tribal mostly consume Ragi at least once or twice daily. Bhairabi variety of Ragi verities promoted by OTELP with support from OUAT and Agriculture Department. This variety of ragi has been taken up in OTELP areas in 683 ha covering 2639 famers.

- **Cultivation of Maize**

The maize is the c4 plants for which OTELP promotes cultivation of maize both in Kharif rabi for carbon harvesting The maize grows well in climatic condition of the programme areas. It provides food for human and livestock. Maize is gaining popularity among the tribal farmers of programme areas special in Gajapati, Nawrangapur, Koraput & Malkanagiri districts 11621 farmers an area of 5790 ha during Kharif and 1473 farmers in an area of 536 ha during Rabi have taken up maize.

With the creation of additional irrigation in OTELP areas cultivation of maize in rabi is increasing every years.



- **Growing of Orange flesh sweet potato**



Sweet potato is an important crop taken up for food, feed and raw materials for industries. Vines can be used as fodder for cattle during off season. Malnutrition is a serious threat to health & productivity of people in most of the tribal areas. Vitamin A deficiency increases the risk of night blindness. One possible solution for addressing vitamin A deficiency is through a food based approach using orange-fleshed sweet potato as an inexpensive source of beta-carotene (the pre-cursor to vitamin A). Community nurseries have been established for supply of vines to meet the demand of the community. An area of 20 ha was covered by 178 farmers.

- **Backyard Kitchen Gardening for nutrition security and supplementary source of income:**

For greater nutrition security and dietary diversity at household level Back yard kitchen garden (Home garden) were promoted in 7430 house hold to meet their daily vegetables required for the kitchen. Fresh fruits and vegetable from home garden provide carbohydrate, proteins, vitamins, minerals & fats that are essential to our body. Hence home garden provides convenient and economic source of nutritious and balance diet for the rural and tribal family. Inclusion local varieties of tasty vegetables (Sag) tubers like radish Gazar are vegetables like, Brinjal, vendi, Beans, cucurbits, Tomato etc. Fruit bearing plants like Papaya, Banana, Lemon, Drumstick and Curry leaf and Bauhinia were also planted on the border of kitchen garden

4.9. Enhancing livelihood of tribal through Gravity based drip irrigation for vegetable cultivation on raised beds.



The agro climatic zone of the programme areas of OTELP is very much suitable for vegetable cultivation especially off-season vegetables. Vegetables are low in fat but content good amounts of vitamins and minerals. The tribal farmers of the programme areas mostly do not take required quantities of vegetables. Many tribal farmers consume only carbohydrates for which there is acute mal nutrition. Emphasis has



been given for production of vegetables. Productivity & profitability from vegetable cultivation is increased by use of low pressure drip irrigation system as compared to traditional flood irrigation. Poly house is very suitable to provide favorable climate for germination of seeds and protection of seedlings from adverse weather conditions and quality seedlings are raised. Considering

the above facts 2257 farmers each with having 1000 M2 area have taken up commercial vegetable cultivation in the raised beds after laying pressure compensated drip kits and 502 farmers of OTELP areas have taken up commercial cultivation of vegetables with trellis. Each beneficiary on an average getting net profit of Rs.18,940.00- to Rs.26,500.00 per annum.

Marketing Support:

Vegetable growers are being facilitate for market linkage by the vegetable cooperatives 21 nos. of aggregation centre & 6 nos. of vegetable co-operative are providing market linkage to the vegetable growers of Koraput, Balliguda, Nawarangpur & Gunupur OTELP areas.



4.10. Poly House for production of vegetable seedling and marketing:

Crops/Seedlings are grown in protected environment. Hence poly green house regulates temperature, ventilation, light intensity, humidity etc & facilitates for raising of quality seedlings. 59 poly nurseries each 160 m² area have been functional in OTELP Programme areas. Women SHGs raising seedlings in the poly houses and supplies the same to the farmers. On an average, each women SHG getting a net profit varies from of Rs.14000.00 to Rs. 21000.00 by selling vegetable seedlings from one poly house.



4.11. Vermi composting (Recycling wastes into valuable organic fertilizers):

214 Vermi compost units were established and 56220 kg vermin compost produced. The Vermi Compost is sold to the farmers @ Rs.500/- to Rs.1000/- P/Q in different programme areas:



4.12. Improved Rice cultivation for sustainable livelihood through SRI & Line Transplanting



Rice cultivation became more profitable when grown under SRI/line transplanting. This ultimate result is increase of productivity by 20-25 % compared to traditional practice.

788 farmers taken up SRI in 450 ha. & 4748 ha. Covering 5660 farmers under line transplanting

The productivity is also increased by 20-25 % like SRI compared to traditional practice.

4.13. Promotion of Agro based Fruit Crop Plantations - WADI Model of Orchard

A fruit based agro-forestry system of plantation under upland situation comprises of a combination of perennial & annual plant species in same piece of land for maximum productivity from the unit area. Fruit trees like mango, cashew, litchi, orange etc are sufficient enough in providing higher economic return even under stress conditions as compared to annual crops like paddy, pulses, oil seeds & even vegetable and spices. The different combination of fruit species covered under the programme areas are mango + cashew & Mango pure crops. 2954 ha. Plantation taken up by 7702 farmer. After 3rd year plantation each farmers getting a net profit of Rs.20000.00 and Rs.80000.00 per ha. after 10 year.

- **Inter cropping in WADI**

1151 WADI farmers have taken up intercropping with vegetables and spices in the inter space of the plantation. On an average each WADI farmer has got a net profit of Rs.5250.00.



4.14. Informal seed production and distribution of quality seeds as a income generation activities for the tribal women SHGs

Farmers have realized that productivity of different crops increase significantly due to use of quality seeds. 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. Accordingly, 45 village level seed banks were established. 1356 qtls. of quality seeds (paddy 1192 qtls, Ragi 50 qtls., Niger 76 qtls., Kodo 38 qtls.) were produced by women SHGs & sold to 6860 farmers after processing, bagging and stitching of the bags. New 20 kg capacity HDPE bags were used for the purpose of packing of paddy seeds where as new 4 Kg capacity cloth bags were used for packing ragi & niger seeds. This provides average 210 days gainful employment to the women SHG member and they enhanced their group income by selling quality seeds at reasonable price.

4.15. Custom hiring of farm machinery:

Now use of animal power in agriculture is reducing day-by-day Farm mechanization is call of the day. Agricultural Machineries are key for increasing production & productivity of land, return & profitability to the farmer and comfort & safety by timeliness of operation, saving labour requirement, cropping



intensity and reduction in human drudgery. In OTELP, Farm Mechanization-Tractor, Power tiller & other equipments are owned by the SHGs. These machineries are being utilized for summer ploughing & other agricultural operations on custom hiring to fellow farmers. This has been introduced as an income generating activities of SHGs.

So far 56 SHGs have owned 49 power tillers and 7 tractors. These are

used on custom hiring for fellow farmers.

On an average each SHG has earned a net profit of Rs.16,500/- to Rs.19258.00.

4.16. Livelihood Support for vulnerable tribals:

Programme supported for livelihood on agro processing-144 household, Ruralartisan-524 household. Small business 859 households, vending on agriculture produce-793, improved poultry-482 households, goat unit-3562 households, commercial vegetable cultivation- 2044. Each household are earning a net income of Rs.20000/- to Rs.35,000.00 per annum.

4.17. Gainful employment of MGNREGS job card holder :

11523 Landless and small and marginal tribal farmer those have depend on wages for their livelihood have been gainfully engaged in 4.6 lakhs man days created under MGNREGS.

LIVESTOCK AND AQUACULTURE PRODUCTION

75% households constitute the Scheduled Tribes (ST) and 15% Scheduled Castes (SC) in the programme areas. The income from traditional agriculture is low. Therefore there is a dependency on nonfarm activities like goatery, piggery, sheep rearing, duckery and poultry for supplementary income. Backyard poultry farming requiring hardly any infrastructure set-up is a potent tool for upliftment of the poorest of the poor. Small scale poultry production through individual broiler farming also has the potential to stimulate economic growth of resource poor households. In order to overcome this problem, it may

Securing Lives By Ensuring Livelihoods

be necessary to take up scientific rural poultry production programme by introduction of low input technology dual purpose birds & improved broiler farming to meet the requirement of the rural sector where the poultry farming constitute a source of subsidiary occupation, generating subsistence income to boost the nutritional standards, income levels and health of rural masses.

OTELP has made the following poultry interventions broadly in 3 areas.

- Establishment of day old chick rearing units (mother units) by the women SHGs.
- Backyard poultry farming by the tribal families
- Improved broiler farming by the individual tribal families

Activity	No of Units	Families benefited	Supplementary Income/annum
Establishment of day old chick rearing units (mother chick units) by the women SHGs	93	930	Rs. 45000-50000
Backyard poultry farming by the tribal families	3628	3628	Rs.10000-15000
Improved broiler farming by the individual tribal families	880	880	Rs.15000-20000

The day old chicks are vulnerable to predators in free range conditions, they need to be reared under reasonably controlled conditions with proper brooding facility, balanced feeding, vaccination & medication say up to 28-30 days so that they are capable of thriving in open range conditions. Care is taken to maintain proper temperature inside the brooder looking into the ambient temperature so as to avoid chick mortality. This day old chick rearing unit with a capacity to rear 1000 chicks is called mother chick unit (MCU) or brooding c entre. The above table speaks about the various poultry interventions are made through the programme. There are 93 mother chicks units are established benefiting 930 families. This is purely managed by an individual SHG.

28 days old chicks 30 in numbers are supplied to member families of other SHGs in the same village or nearby village for rearing under scavenging condition for a further period of 2 to 3 months. Thereafter the birds can be sold for meat purpose after 60 to 90 days of rearing. The hens can be reared for egg purpose which starts laying eggs after 24 weeks. After egg laying period, the hens can also be sold for meat purpose at a cheaper rate. The poultry co-operative organized in the district is responsible for capacity building of the farmers and ensures timely supply of chicks, feed, medicines, vaccines, medicines including marketing of the birds. There are 3628 backyard poultry unit promoted through the programme.



Backyard Poultry

Tribal famers are trained to rear improved broiler poultry at individual level by establishment of broiler

units each with capacity to rear 400 chicks in an area of 400 sq.ft. for a period of 35 to 40 days. There are 880 units are established through the programme.

Steps are taken by the programme for marketing of poultry. Cooperatives are promoted, liaison is made with SWPCFL an NGO to provide support in each cases starting from supplying chicks to selling of birds. The district administration also arranged to supply chicken to Ashram Schools. This is an alternative arrangement made. As on date the programme provides chicken to 216 schools. Certain cases direct marketing is done by the beneficiaries.



Broiler Unit

Tribal in nature loves rearing animals. Goat rearing is one of the best activities taken up through this programme. The surrounding, space, environment helps them to rear goat smoothly. This is an individual activity. As on March, 2016, 5819 goatery units are already established benefiting 5819 families. As per the programme design each unit comprised of goats. The total goats purchased are 29095 and one buck is supplied to five families with the total of 855 bucks purchased through this programme.

The existing goat cooperative is helping the tribal by providing services like regular medication, vaccination, timely castration, imparting training on improved goat rearing, grooming of paravets, arranging feed, insurance and sale of goats at a fair price etc. The focus is on women rearers involved in goat rearing and sustainably even after the end of the project.

Rearing of livestock is the traditional means for tribals to secure immediate or unforeseen expenditures. As reported above, 95% of the beneficiary families reported that they have own small ruminants or livestock and rearing it for their livelihoods. The programme has ensured livestock support system to these families to increase the production.



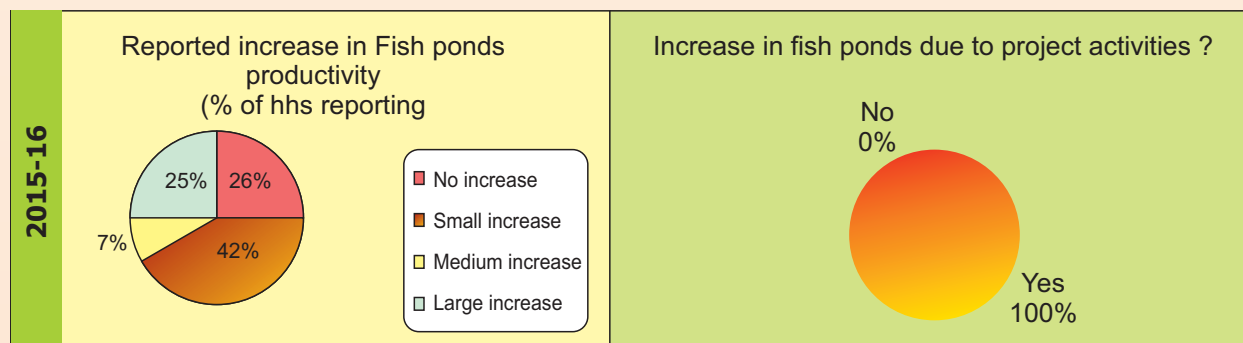
Mother Chick Unit (MCU)

From the study it is clearly that 95% of the beneficiary families have reported that there is an increase in their herd size.

OTELP promoted inland fishery to maximize the utilization of existing water bodies & generate additional income for the farmers. Importance on conservation of minor rain fed water bodies such as Tanks and Ponds to receive water through rain water runoff during South west and North east monsoon period, only from their free catchments area without any other supplemental source. Normally these water resources are used for irrigation as well as for percolation. The main objectives are to utilize existing water bodies,

Supplement food & nutrition security through fish consumption in tribal villages and additional income by developing skills in Pisciculture. As on March, 2016, there are 547 ponds/tanks are used for pisciculture purposes benefiting 6017 families. The technical assistance was availed from Dhan Vayalagum Tank Foundation.

About 74% of them are quite happy with the increase in the production of fish from fish ponds and 100% reported that this increase in fish ponds is due to the programme activities.



4.4 Rural Financial Services

Financial involvement always plays a pivotal role in development process. The success of each and every activity depends upon the good financial implication. It is seen that access to financial services is a big challenges across the state in general and Tribal domain in particular. The banking infrastructure facilities do not support to cater the financial services to the forest dweller due to inaccessibility. To



address these issues and challenges the programme has developed Rural Financial Services, as a part of livelihoods enhancement strategy.

It ensures financial inclusion for all families comes under programme operational areas and specific attention is also given for vulnerable groups. It provides financial services in terms of savings & credit at



their door step. As banking infrastructure at the programme areas are very poor, access to these institutions by the tribal community takes lots of pain. This rural financial Services Fund is managed by the people institutions like SHG at village level, SHG Federation at MWS level and Apex Federation at Cluster or block level. As per provision, the allotment is Rs.565/ha which meant for strengthening people institutions and providing in time financial support for taking up any kind of livelihoods activities either individually or all members in a SHG as a whole. As off now the programme has promoted 4273 SHGs covering all 34 branches of seven ITDA in Phase-I & II areas. The details are given below;

Particulars	Coverage
No of Groups conducting meeting regularly	4273
No of group following rotational leadership	1821
No of Groups undertaking savings regularly	3871
Cumulative Savings Rs. In lakhs	1361.53
Average Savings per SHG in Rs.	31863
No. of SHGs taking Loan from RFS	2663
% of Members of SHGs taking loan from these groups	62%
Amount of Loan Taken by these groups from RFS Fund Rs. In Lakhs	409.62
Per capita loan by SHGs in Rs.	15382
Amount Repaid by these groups Rs. In lakh	189.55

Source: Project MIS 2015-16

4.4.1 Gradation Details

It is a systematic assessment strategy being taken across all SHPI to know the strength & weakness of SHGs followed by designing different types of capacity building training for the weak SHG to bring them up and income generating activities plan for good performing SHGs. The assessment format is being developed basing upon the criteria mentioned in NABARD and in the Mission Shakti guideline. Each of the SHG is being assessed twice in a year. The SHG gradation process is done by the leaders of SHG Federation involving all SHG leaders at SHG Federation meeting. This gives a space to all leaders to be a part of democratic process in grading SHG. The details are as follows;

Grade	No of SHG
Grade A	2282
Grade B	1452
Grade C	372
Not graded	167
Total	4273

Source: Project MIS 2015-16

Securing Lives By Ensuring Livelihoods

4.4.2 SHG Federation & Apex Federation

SHG acts as primary institutions at village level comprising of 10-20 members cater services of savings & credit to all its members. The SHG provides initial financial support to all its members. The SHG also takes social responsibility in terms of keeping village environment neat & clean, ensuring education at village school, stopping liquor vending at villages etc. The SHG approaches SHG Federation as well as bank when the



SHG could not fulfill financial demand of the members. SHG Federations are promoted at VDC level comprising of all SHGs in a MWS as a management unit. This institution is held responsible for providing services to SHGs in terms of conducting SHG meetings, writing books of account, managing RFS fund, addressing social issues like health, education & sanitation at locally, etc. These two institutions are informal in nature and federated at locally.

Apex Federation is promoted at block level and registered under Odisha Self Help Cooperative Act 2001. As off now seven Apex Federations are promoted

under this OSHCA 2001. These institutions provide services to all members who are the members of the cooperative. This Apex Cooperative involved in business activities as well as providing guidance to all SHG Federation and SHG for managing the institutions properly. The status of SHG Federation and Apex Federation promoted in Phase-I & II areas at MWS and block level respectively given below.

Name of ITDA	No of MWS	No of SHG Federation Promoted	No of Apex cooperative promoted
Baliguda	59	50	2
Koraput	70	65	3
Nabarangpur	29	29	3
Malkanagiri	30	30	0
Paralakhemundi	60	60	6
Th.Rampur	60	55	1
Gunupur	50	50	5
Total	358	339	20

Source: Project MIS 2015-16

4.4.3 Linkage with Financial Institutions

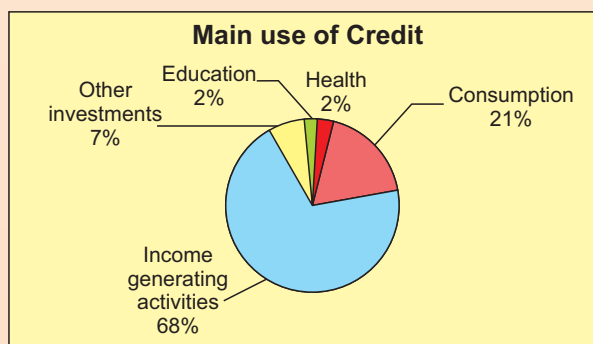
Mainstreaming these institutions is core objectives of this programme. Initially, these SHGs availed financial support from RFS which helps to demonstrate others, particularly banking institutions. Referring their previous banking transaction and performance all financial supporting agencies has developed a faith on these institutions. RFS triggers these groups in supporting micro credit to demonstrate access and management of micro finance operations. Subsequently these groups are linked with banks for higher credit linkage for taking of income generating activities. The details of the SHG bank linkage made with facilitation of the programme are given in the table below:

Linkage with banks	Rs. In lakh.
No. of SHG	2382
Cumulative fund mobilization Rs. In lakhs	1524.52
Fund mobilization during last year Rs. In lakhs	288.8
No. of SHG	277

Source: Project MIS 2015-16

4.4.4 Credit utilization pattern

“Credit is a burden”, but it can be converted as a pillar of development if it is properly utilized and managed. It takes a lead role in supplementing in enhancing the livelihood activities of a poor tribal. The core activities of the SHG are thrift collection and providing loan to the needy as per their requirement. Loan is granted to members of the SHG for all purposes, but sometimes, members deviate to use the same from the cited purposes



either due to other requirements or compulsion. But it is seen that loan meant for productive purposes has greater degree of repayment performance than the unproductive. Hence emphasis is given on promoting loan for livelihood activities. The details are depicted through pie chart.

4.4.5 Micro enterprise Activities

The programme is eyeing on promoting large numbers of feasible microenterprise through SHG



SHG members harvesting zinger



SHG members preparing tamarind cake

and its federation. It is key pin for enhancing livelihood activities of tribal poor leading to a better livelihoods option. The SHG and its federation has availed loan for taking up different types of business activities particularly value addition of surplus agriculture produces and Non-timber forest products. It helps them to be empowered in terms of socially, economically and politically. The different kinds of microenterprises are preparing tamarind cake, turmeric powder, flour mills oil, extraction unit, chick feed unit, nutritional food processing unit, leaf plate making unit etc. The credit utilization pattern is iterating that maximum loan is meant for business and productive purposes. SHGs have taken steps to promote different micro enterprise activities given below.



SHG members managing rice hauler unit



Turmeric powder unit managed by SHG



SHG members stitching Khali leaf plate



SHG members assembling Solar Lantern



Weighing and Packaging of seeds by SHG



Stitching of brooms by SHG



Collection of fund by selling the NTFP



SHG level Meeting and Audit

Chapter 5

Community Infrastructure Fund (CIF)

and

Development Initiatives Fund (DIF)

Apart from the general watershed treatment and livelihoods based approach, provision has been made by the programme for additional components like Community Infrastructure Funds and Development Initiatives Fund to meet community needs and to support and strengthen the interventions under livelihoods support activities.

5.1 Community Infrastructure fund (CIF):

The Community Infrastructure Fund is meant for need based infrastructure projects for small and remote communities; mainly to fill the critical gaps, which are not likely to be covered through existing Government schemes. Programme adopted a strategy to access CIF through a demand driven approach with communities identifying critical infrastructure constraints. The priority area under this component are- (i) improving the linkages to market for those communities which are producing significant surplus, particularly during the monsoon season (ii) reducing the workload of women by ensuring supply of safe drinking water close to the habitations, (iii) improving the access to food supply through PDS (iv) child care (v) health care, (vi) supplementing educational infrastructure etc. Besides, economic activities like creating work sheds for the communities for income generating activities like NTFP processing unit, storage centers, mills etc. can also be covered. These facilities are used by the communities and managed by the VDCs through the common user groups. Emphasis is given on community responsibility for maintenance of the infrastructures so developed and women are encouraged to take up this responsibility. The major activities taken up so far under this sub-component are given in the table below:

5.2 Development Initiative Fund:

This is an additional and flexible funding to address to areas of demand as expressed by communities through the participatory processes during the course of programme implementation and also to supplement those components / interventions of the programme yielding very good results. It also enables the communities to implement activities which are not accommodated in other programme components. Under this component, provisions has been made for targeting the traditionally excluded households e.g. single women headed households, landless, destitute, physically challenged and those who are unable to be part of the SHG or other income generating activities.

The activities under DIF are broadly divided into four categories such as;

- ❖ Supplementary funding to other programme component
- ❖ Experimenting and / or up scaling innovative activities for livelihoods
- ❖ Promotion of low cost, time & labour saving technologies for reduction of drudgery
- ❖ Support to the vulnerable and destitute households living in the programme villages



The activities undertaken so far under this sub-component are given in the table below:

Activity under CIF & DIF	Unit	Cumulative up to March 16
Animal Shed	nos.	74
Bathing ghat/ river steps	nos.	54
Chuan / Open well	nos.	1299
Drying yard	nos.	402
Grain storage bin (Silo)	nos.	7932
IGA (SHG)	nos.	1755
IGA(Individual)	nos.	1671
Market yard	nos.	18
Multipurpose centers and storage go-down	nos.	752
Smokeless Chula	HH	10765
Solar Street Lights	nos.	140
Threshing Platform	nos.	177
Toilet & Bathroom	nos.	14143
Tube well Platform	nos.	223
Vermi compost	Nos.	558
Village drain	nos.	241
Villages covered with Total Sanitation	nos.	210
Piped Drinking Water Supply	nos.	910
Piped Drinking Water Supply (sanitary well/ bore well)	nos.	243
Piped Drinking Water Supply (gravity fed)	nos.	667
Vulnerable/ Destitute supported with livelihood activities	HH	12485
Water Filter	nos.	10386
Water Storage Tank	nos.	46
Work shed	nos.	77

Source: Project MIS 2015-16

The major outcomes of activities are detailed in the following table:

Outcomes	Cumulative up to 2015-16
Villages served with piped drinking water	910
Villages covered with complete sanitation (individual toilet and bathroom)	210
Households covered with Total Sanitation (individual toilet and bathroom)	14143
Vulnerable/ Destitute Household supported with livelihood activities	12485
Covered with storage facilities (community storage with drying facility)	752

Source: Project MIS 2015-16



5.3 New initiatives:

The programme is keen in piloting various innovations, new technologies and best practices learnt from other programmes and developers. Once the pilot projects are acceptable by the beneficiary communities and found culturally and economically adaptable, suitable strategies are formulated by the programme to scale it up either out of its own fund or through convergence. The programme attempts to pilot and upscale the followings technologies which will directly benefit the tribal poor.

5.3.1 Hydraulic Ram pump

A hydraulic ram is a motor less device which uses the energy of falling water to lift a lesser amount of water to a higher elevation than the source. There are only two moving parts, thus there is little to wear out. Hydraulic rams are relatively economical to purchase and install. This can be built locally. On proper installation, this will give many trouble-free years of service with no pumping costs.

The hydraulic ram is a cost-effective solution where a large gravity flow exists, mainly in hilly and undulating terrain for upland irrigation. Installation of hydram is considered when the source can provide at least seven times more water than the ram is to pump and the water is, or can be made, free of trash and sand. There must be a site for the ram at least 1.5m below the water source and water must be needed at a level higher than the source.

<p>Minimum technical requirements:</p> <ul style="list-style-type: none"> • Drive head range = 1.5 – 30 meter • Drive flow rang = 60 - 120 ltrs/min • Delivery head range= 6 – 100 meter <p>Typical delivery range = 2 - 20 ltrs/min</p>	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> • No external power; no pumping cost. • Only two moving parts; little maintenance cost. • Much lesser skill is required for operation and maintenance. • Can be operated 24 hours in a day. <p>Used for upland irrigation and water supply in hilly terrain.</p>
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Operation of 4 nos. of hydrams in series

Though efficiency of hydram is much lesser than the other power operated pumps, still it is advantageous



due to low initial cost, almost no running cost. Particularly it is suitable for OTELP villages where the habitations are located in remote hilly terrains where no other options for providing water is available.

This technology for water lifting from a downhill stream to uphill without requirement of external power was first piloted during 2011 in Kalahandi district and programme has taken steps to replicate in other districts during the programme. So far, 29 hydram projects have been taken up in 5 districts providing irrigation facility for 58 ac. of small and scattered patches and benefiting 290 households. OTELP is in

Ongoing hydram project lifting water to uphill for irrigation

process of up scaling this technology in all feasible areas and wherever possible to combine it with drip irrigation systems to improve the water use efficiency.

5.3.2 Pico & Micro Hydro Electricity Project

Water is a natural resource which has been used to generate power, in one form or another, for centuries. A hydro scheme requires both water flow and a drop in height (referred to as a 'head') to produce useful power. Water from the river is channeled through a settling basin, which helps to remove sediment that could harm the turbine. The water then flows into the fore bay tank where it is directed downhill through a pipe called a penstock. When the water reaches the bottom, it drives a specially designed turbine to produce the electricity. Hence, basically it is a power conversion system, absorbing power in the form of head and flow and delivering power in the form of electricity or mechanical shaft power. Micro hydro is a type of hydroelectric power that typically produce up to 100 kW of electricity using the natural flow of water. These installations can provide power to an isolated home or small community, or are sometimes connected to electric power networks. Power generation from renewable energy sources has assumed significance in the context of environmental hazards posed by the excessive use of fossil fuels.

OTELP is committed to promote this decentralized energy Solutions to the remote areas, where the sources are available. The programme in association with Gram Vikas piloted this technology in Karnibel village of Kalahandi district. Funds to the tune of Rs. 143.70 lakhs is already mobilised for 9 such projects in Kandhamal, Rayagada and Koraput district which will not only provide home or street lights, but also directly promote livelihoods of 582 tribal households by establishing agro processing units and common charging centers



utilizing the electricity and providing drinking and irrigation water benefiting 582 tribal families.



Micro hydro electricity project generating electricity



Children reading in the programme village in electric light



MHEP IN ASSOCIATION WITH GRAM VIKAS ELECTRIFYING PUNJAM VILLAGE OF LANJIGARH BLOCK

8 more sites in Kalahandi district are found feasible for Micro hydro project and about 40 more sites within OTELP area were already identified for feasibility study. The programme is in the process of sourcing the funds for these projects.

5.3.3 Xylem make Sajhi Treadle Pump

Xylem Inc is a leading provider of fluid technology and equipments solutions globally and operating across 150 countries. Recently Xylem India Pvt. Ltd. has developed one treadle pump named

‘Sajhi. This foot operated pump is based on diaphragm technology and its major advantage over similar pump is it can lift water up to a head of 25 ft. The prototype of this pump was demonstrated in Kusapukada village under ITDA Baliguda on 4th April 2012 and with lot of improvements was demonstrated in Rajuguda village on 16th April 2013. The result was highly appreciated by the farmers.

The main features of the pump are as follows:

1. The Pump is portable (22.2kg. weight) and for easier movement in field a wheel is provided.
2. The pump is foot operated and has a curved handle to facilitate adjustable hand positioning.
3. Operated by one person at a time.
4. Maximum suction head is 25 ft., delivery head is 25 ft and is self priming
5. Discharge range is 60 lpm and 42 lpm at 0 ft. and at 25 ft. delivery head.
6. It can lift water from streams, ponds and wells etc. and debris can be handled safely
7. Scope for using sprinkler and drip irrigation systems directly as it can lift water up to 25 ft .

The commercial production of pump is started during Sept. 2013 and OTELP will pilot it in about 50 villages before scaling it up.



Demonstration of Xylem make Sajhi treadle pump in Rajuguda village of Koraput district



During the trial, the pump lifted water up to 23 ft.

5.3.4 Felxi bio gas units (IFAD’s IMI Project)

Biogas represents a versatile source of renewable energy and a suitable technological solution for poor smallholder farmers in rural areas where conventional energy, such as electricity and fossil fuel, is generally inaccessible and costly. Methane generated from human, livestock and agricultural waste (including garbage, sewage, garden and kitchen waste) can be directly used as an energy source for cooking, lighting and generating electricity. In addition, the bio digester effluents (“slurry”) can be used as crop fertilizer with long-term effects on soil fertility, replacing the reliance on expensive chemical fertilizers (produced from fossil fuel).

At present, more than 80 percent of rural communities rely on traditional fuels such as firewood and charcoal mainly for cooking and lighting needs. Within this context, biogas energy can represent an economic and environmentally viable solution to rural areas, since the time spent by women and children in collecting traditional fuels could be spent in other productive activities and education.

Moreover, the smokes inhaled from the combustion of firewood have huge health implications in terms of chronic respiratory diseases and eye infections leading to increased mortality rates. The adoption of biogas can therefore avoid more than 1.9 million deaths per year caused by health-damaging fuel wood and reduce the time spent gathering firewood.

OTELP was chosen to pilot IFAD's Innovative Mainstreaming Initiative (IMI) project i.e.

Making biogas portable: Renewable technologies for a greener future. Under this programme, 15 units of flexi bio gas systems developed by Biogas International, Kenya are planned to be piloted in collaboration with IIT Delhi. Piloting of 2 units was already completed in Sindurghat village of Kashipur block and the responses from the beneficiaries are quite encouraging.

The major advantages of flexi bio gas systems over the traditional fixed dome systems are:

- ❖ Skilled technical expertise and complex logistics are not required, total installation takes less than a day.
- ❖ Relatively cheaper than the fixed dome system.
- ❖ No need of huge amounts of manure and water to start-up and operate the biogas system
- ❖ Lightweight – can be carried on a bicycle or motorbike and thus easily transported into rural areas.



Piloting of flexi bio gas unit in Sindurghat village of Rayagada district.

5.3.5 Prakti make improved cook stove

Tribal communities in OTELP villages are mostly dependent on forest for collection of fuel woods to meet their cooking needs and a lot of time of tribal women is lost in collection of firewoods. Besides, they depend on traditional smoky chullas which not only consumes much time in cooking, but also produces lot of smokes which has a direct bearing on health hazards. Also almost all tribal schools in this region are dependent on firewood to meet the cooking needs of children. OTELP has previously attempted various models of smokeless chulla for individual households and continuously searching for improved ones.

Recently, the programme facilitated demonstration of PRAKTI make improve cook stove in Subai Kanyashram, Semiliguda of Koraput district. PRAKTI (Prakti Design Lab, Spirit Sense, Old Auroville Road, Bommayapalayam 605104, INDIA) is a for-profit social business founded in

2008 in India. The factory and R&D laboratory are in India with offices in Nepal and Haiti. Prakti has developed fuel-efficient, clean-burning and affordable cook stoves to meet the needs rural households as well as institutional stoves for schools, hospitals and other large-kitchen applications. The result of demonstration at Subai Kanyashram where around 350 students are served lunch and dinner daily was quite encouraging. The cost-benefit analysis after demonstration shows that, using 3 nos. of Prakti make Orka cook stoves of 40, 80 and 200 liter capacity costing about Rs. 68,000/- can annually save Rs. 1,26,000/- towards cost of fuel and the investment cost can be recovered within a period of 5.2 months. The yearly savings can be used for hygienic improvements of kitchen, establishing kitchen gardens and productive use of kitchen wastes which includes generation of bio gas for cooking and organic compost etc.

Demonstration of the Orka 80 liter stove at Subai Kanyashram consumed 70% less firewood than the earthen chulas and produced negligible smoke. The picture demonstrates that the traditional earthen chula on the left has a 25-30 liter pressure cooker consumes a lot of firewood than the Orka



stove at the right with an 80 liter dekchi.

In addition to saving money, the attendant's health benefits to the cooks and deforestation can be reduced considerably. Replicating this model across all schools and its home model across the target households will benefit the tribal community and their micro environment in long run.

5.3.6 Compressed Stabilized Earth Block (CSEB)

Production of conventional bricks requires large amount of fire wood or coal for burning. Both the resources have become scarce & costly. Besides, burning process is detrimental to environment. Hence, the alternative is Fly Ash Bricks or Compressed Stabilized Earth Block (CSEB). Soil mixed

with certain stabilizer (Cement or Lime) is pressed by a mechanical device to get compressed stabilized earth blocks. The compressed stabilized earth block is being used for construction of



buildings. The CSEB is produced with locally available material & need not require fire wood or coal for burning. It is cheaper than conventional & fly ash bricks and resistance to erosion, rodents and termites. Besides, CSEB provides better thermal insulation than fly ash or conventional bricks. Sandy loam or red sandy loam soil having composition of Gravel-15%, sand-50%, Silt-15% and clay-20% mixed with recommended quantities of stabilizer is best suitable for production of CSEB. In case of deviation in composition of soil then sand is to be added to bring the composition of soil to the desired level.

In consideration of the merits of CSEB over fly ash or burnt bricks, the production process of CSEB is in progress to start at 9 locations (Gunupur-5, Paralakhemundi-2, Th. Rampur-2). Necessary training on production of CSEB has been imparted to the Community Service Provider (CSP), WDT (Agriculture) and Watershed Development Officer (WDO) at VDC, FNGO & ITDA level respectively. The CSEB unit will be managed by SHGs/UGs as an income generating activity.

Output under DIF Top up Assistance

Keeping in views to up-scale the successful innovations of the programme and providing livelihoods to the vulnerable households, the Govt. of Odisha requested to IFAD for additional financing to take up activities under four components i.e. support to vulnerable, creation of irrigation infrastructure, creation of livelihoods activities and creation of engineering structures.

Sl No.	DIF (Out of IFAD'S Top Up Assistance)	Unit	Top up Achievement
1	Support for agro processing units (rice huller, oil expeller, grinding units, dal processing, pickel, jelly making, broom making, leafplate units etc.)	HH	144
2	Support for rural artisans (wooden/ bambo craft, black smith, carpentry, pottery, plumbing units etc.)	HH	524
3	Grocery/ stationary shop, tailoring unit, small hotel, sales counter, cycle/ motorcycle/ mobile/ electrical repairing centers etc.	HH	264
4	Vending of agril./ consumable produces	HH	793
5	Musical equipments, tent houses and support for small scale trading	HH	14
6	Special support for physically challenged/ ultra poor for livelihoods enhancement	HH	232
7	Provision of low cost housing materials	HH	1,236
8	Diversion based irrigation projects	nos.	292
9	Small lift irrigation projects (dug well/ stream/ river etc.)	nos.	236
10	Hydraulic ram project	nos.	5
11	Water lifting devices for existing water sources (treadle pump, diesel/ electric pumpsets etc.)	nos.	2,922
12	Improved poultry units	HH	482
13	Improved goat rearing units	HH	3,562
14	Commercial vegetable cultivation (with trellis method)	HH	1,090
15	Commercial vegetable cultivation (with raised bed and drip irrigation)	HH	954
16	Economic units/ activities on various trades for trained unemployed youths (Agril. Service center, electrical shop, tailoring units, mobile retails and repairing shops, motor garrage, support for vehicles etc.)	HH	581
17	Toilet & bathrooms for individual households	HH	3,919
18	Village drainage system improvement	nos.	142
19	Community animal shed	nos.	13
20	Improvement of animal shed at household level	nos.	371
21	Improved cook stove/ smokeless chulla (individual)	nos.	7,906
22	Improved cook stove/ smokeless chulla (institutional)	nos.	72
23	Low cost individual water filter	nos.	9,388
24	Low cost community/ institutional water filter	nos.	95
26	Village waste disposal systems (waste water drain, soak pit, garbage disposal units etc.)	villages	43
27	Commercial vegetable cultivation-Gourd	Ha	0.72
28	Commercial vegetable cultivation-Potato	Ha	473
29	Commercial vegetable cultivation-Onion	Ha	58

Source: Project MIS 2015-16

The total fund allocated under additional finance to the tune of Rs. 9020.00 lakhs, out of which 5802.84 lakhs was requested by the programme to be spent during these two years from 2014-15 to 2015-16. As on march 2016, the programme could spend Rs. 5744.81 (98.99%) lakhs benefiting 47722 (84.94%). Importance is given upon individual level intervention as the per capita household investment cost was low looking at the time span of the project.

All the activities under Top up Assistance are broadly categories into four types. 3207 (5.71%) of HHs are assisted under Support to Ultra Poor/Vulnerable Families, 3455 (6.15%) of HHs are covered under Creation and Development of Irrigation Infrastructure, 12577 (22.39%) of are assisted under Focused Livelihoods Intervention and 28483 (50.70%) habitation improvement & sanitation.



Support to Rural Artesian



HH supported with Toilet & Bathroom



DBI project



HH assisted with Cycle Repairing Shop



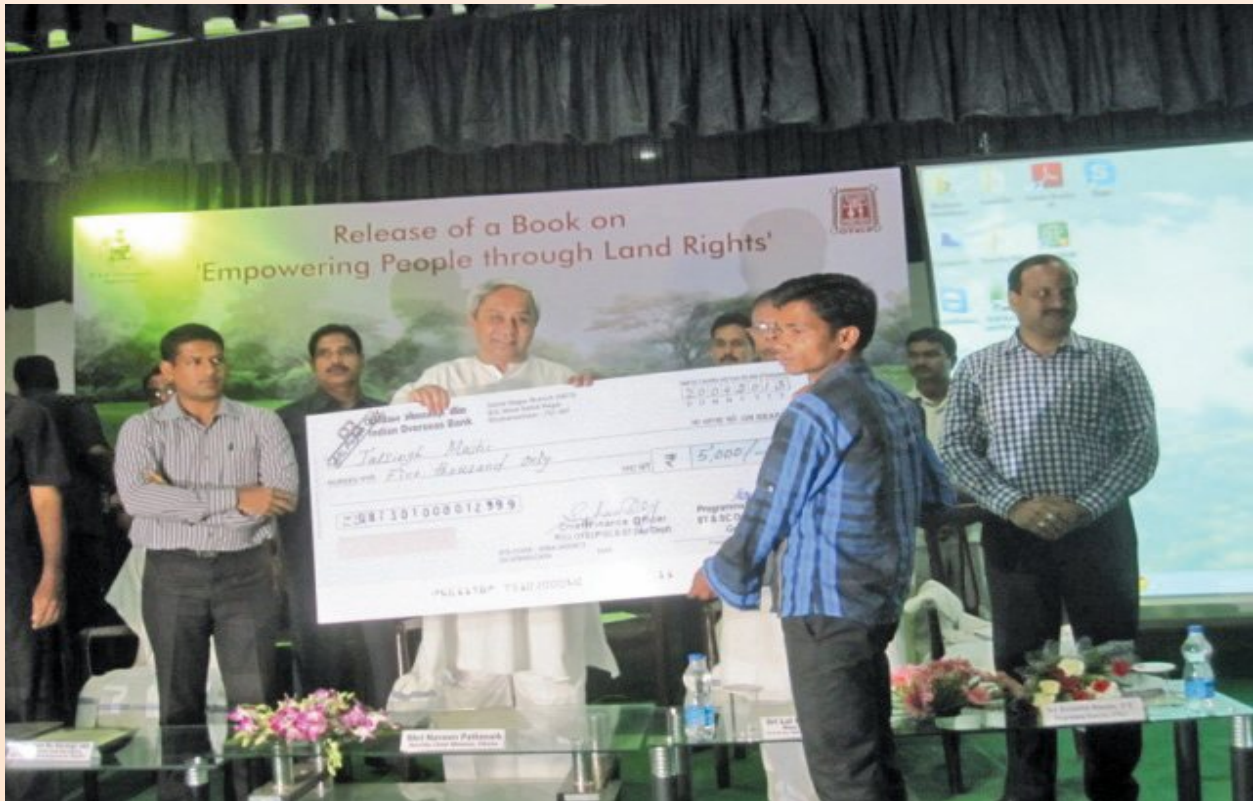
Water lifting devices



Beneficiary assisted with Low cost Housing Materials

Chapter 6

Support for Policy Initiatives



The Odisha Tribal Empowerment & Livelihoods Programme (OTELP) in order to further its livelihoods and food security agenda, identified land as a critical area of intervention. While proactively organizing various workshops, focussed group discussion etc, OTELP has been coming out with measures which can be implemented by the Government as part of its policy to improve the existing livelihoods of the tribal population at large. However, land has been focal to such initiatives under the support for policy initiative component.

Therefore, it has been one of the prime objective of OTELP to cover all the absolute landless households in the Programme village by facilitating in grant of land titles. Through various proactive measures and with the active collaboration of Revenue & Disaster Management Department Govt. of Odisha, lands have been provided to the landless families under OPLE (Odisha Prevention of Land Encroachment) Act, 1972, OGLS (Odisha Government Land Settlement) Act, 1962; Mo Zami Mo Dhia programme and Vasundhara Schemes. These combined with restoration of land under Regulation 2 of 1956 as well as Grant of individual land titles under Forest Rights Act, 2006 have helped 26038 families to get land titles as per table given below:

Sl. No.	Schemes/Programme/ Provisions	No. of Families Settled with Land
1	OGLS	2905
2	OPLP	9773
3	Vasundhara	3515
4	Mo Jami Mo Dhia	638
5	FRA	8611
6	Regulation-2	596
	Total	26038

Also to ensure land to the landless, OTELP scaled a model that Landesa (Rural Development Institute) had designed and piloted. The model uses a trained local youth to provide additional capacity to the field level Revenue Officials. These local youths called as the Community Resource Person are working in all the 1042 villages and as on date have facilitated grant of close to 13000 land titles in last two year other than the one indicated above. This land allocation programme has become a community led process and the Government of Odisha has extended this to 18000 villages in the 118 Tribal Sub-Plan Blocks of 12 districts in the State. The status of land allocation programme in OTELP operational villages with help of Landesa is as below:

Status of Land Allocation Programme in OTELP Operational Areas				
Name of the District	Absolute Landless (Zero House site and Zero Farmland)	Households allotted House sites	Households allotted Farm land	Total
Nawarangpur	2009	1831	245	2076
Malkangiri	1690	760	27	787
Koraput	2473	6995	230	7225
Gajapati	916	962	761	1723
Kandhamal	805	355	0	355
Kalahandi	1655	1771	33	1804
Rayagada	2570	2946	710	3656
Total	12118	15620	2006	17626

550 CRPs' facilitated the programme in OTELP, where as, 334 CRPs' are working in OTELP Plus area and are facilitating in providing land titles to the homesteadless and landless families.



The programme also facilitated community as a whole to avail community forest rights (CFR) under FRA, 2006. Necessary steps are taken to identify the land, demarcate the traditional bounding followed by due procedure for getting right over the forest by the community. The table below reflects the ITDA wise claims filed and title received under CFR:





Status of land title given to community under CFR		
Name of ITDA	Total no of CFR claims filed	Total no. of CFR titles received
Baliguda	154	56
Koraput	9	0
Paralakhemundi	38	6
ThuamulRampur	18	2
Gunpur	42	5
Mallkanagiri	163	4
Nawarangpur	23	1
Total	447	74

Source: Project MIS 2015-16

The Grant of CFR under FRA 2006 has been facilitated by various civil society organizations working in the project district and management plan by converging various community managed practices are being incorporated to manage these forests sustainably.

Chapter 7

Financial Progress



The programme prepares Annual Work Plan and Budget for every year which is being approved by the government against of which fund allocated and spent. The year wise approved annual work plan and budget from 2003-04 to 2015-16 and expenditure as details against each component is given below.

Financial Year	AWPB (Rs. In Lakhs)	Expenditure (Rs. In Lakhs)
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	4121.77
2011-12	5600.00	5486.87
2012-13	5069.12	5184.91
2013-14	5038.00	3045.96
2014-15	11000.57	7520.11
2015-16	4038.98	3886.24

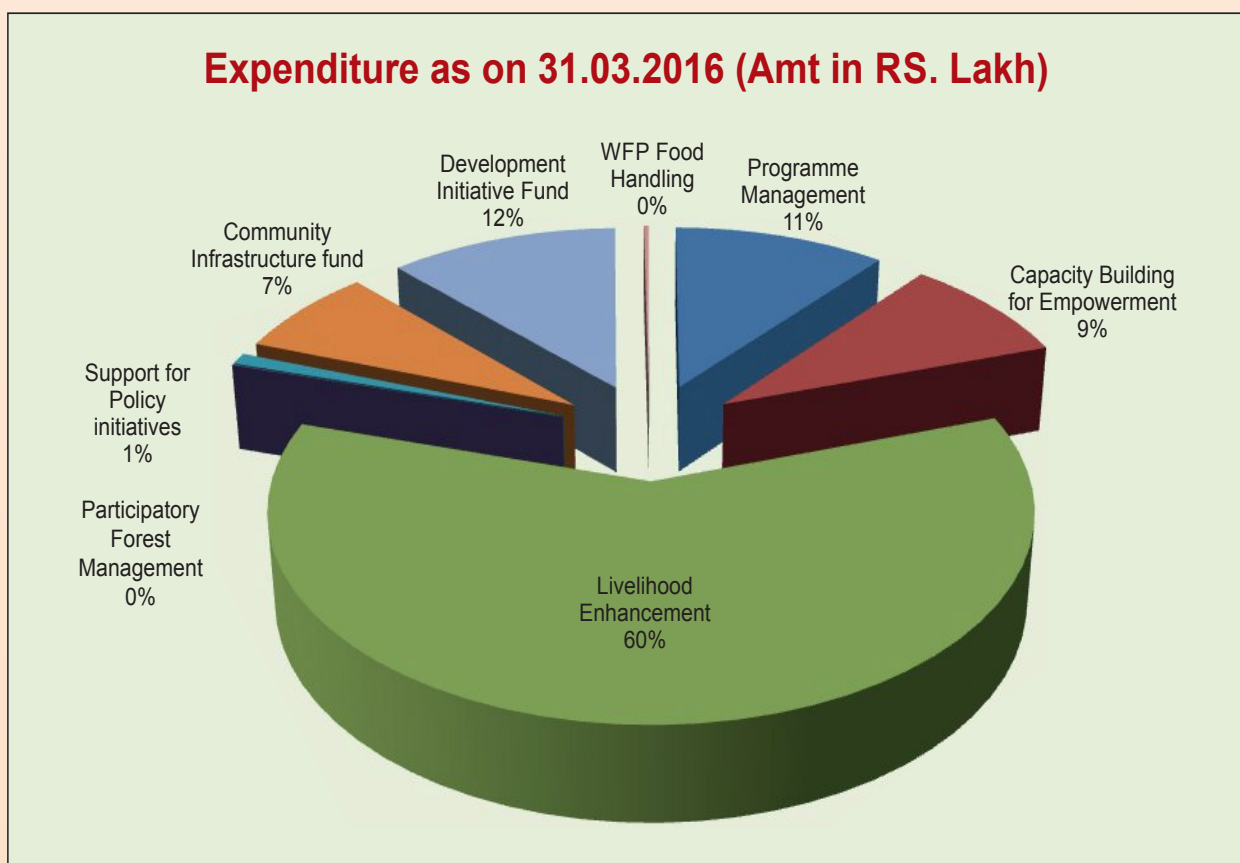
Source: Project MIS 2015-16

Programme Component wise Expenditure for the Financial Year 2015-16

The below table and pie chart indicates that maximum fund goes for livelihoods enhancement.

Component	Expenditure during 2015 - 16 (Rs. In Lakhs)
Capacity Building for Empowerment	310.14
Livelihood Enhancement	131.01
Support For Policy Initiatives	40.81
Development Initiative Fund	2,930.72
Programme Management	473.56
Food Handling	--
Grand Total	3886.24

Source: Project MIS 2015-16





Balance Sheet & Income Expenditure

ODISHA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME (OTELP)		
BALANCE SHEET AS ON		
<u>LIABILITIES</u>	Rs in lakhs	
	31st March 2016	31st March 2015
CAPITAL FUND		
As per Last Balance Sheet	6,209.00	7,767.76
Add: Surplus -Excess of Income Over Expenditure	-5,315.64	-1,558.75
TOTAL	893.36	6,209.00
<u>ASSETS</u>		
<u>Current Assets Loans Advances</u>		
Cash/ Postage In Hand	0.55	0.41
Cash At Bank-Saving Bank Account	858.34	2,178.72
Cash At Bank-Short Term deposit	-	2,928.52
Balances With FNGOs	15.98	55.20
Balances With VDCs	150.16	1,686.43
Security Deposit	2.68	2.74
Advances / Receivable	17.37	182.23
Advance To Employees	0.19	2.02
WFP Food Stock	-	-
	1,045.28	7,036.27
<u>Less: Current Liabilities And Provisions</u>		
Expenses Payable	36.62	35.08
Deductions Payable	1.30	1.42
Recoveries Payable	-	-
Other Current Liabilities	114.00	790.77
	151.92	827.27
	-	-
Net Current Assets	893.36	6,209.00
	-	-
TOTAL	893.36	6,209.00

ODISHA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME (OTELP)				
INCOME AND EXPENDITURE A		ACCOUNT FOR THE YEAR		
(A) INCOME	Sch. No.	2015 -16	2014 -15	Cumulative to Date
(Amount in Rs. in lakhs)				
Funds Received From State Gov't/ Grant in Aid		800.00	4,999.99	36,472.75
		-	-	-
World Food Programme Account		-	-	2,664.15
Bank Interest		(2,376.57)	514.14	588.87
Misc. Income		0.35	0.28	5.51
Beneficiary Contribution		146.81	446.95	2,380.87
		-	-	-
TOTAL INCOME		(1,429.41)	5,961.36	42,112.15
		-	-	-
(B) EXPENDITURE		-	-	-
		-	-	-
Salary & Allowances		288.88	302.43	2,262.81
Other Incremental Operating Cost	10	170.66	144.34	1,268.74
Technical Assistance Studies Training	11	310.14	383.30	4,298.52
Investment Fund	12	174.15	840.18	18,598.18
Vehicle, Equipment, Material	13	14.02	7.89	566.05
Grant Fund	14	(-2.33)	29.52	1,072.23
Development Initiative Fund		970.84	1,996.62	4,528.57
Development Initiative Fund (TUL)	15	1,959.89	3,815.84	5,775.72
WFP Food Consumption		-	-	2,664.15
Food Handling		-	-	183.80
		-	-	-
TOTAL EXPENDITURE		3,886.24	7,520.11	41,218.79
		-	-	-
Excess Of Income Over Expenditure (A - B)		5,315.64	1,558.75	893.36



ORISSA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME (OTELP)			
EXPENDITURE As on 31st March 2016 (Rs.in Lakhs)			
<i>Name of the ITDA</i>	<i>PHASE I</i>	<i>PHASE II</i>	<i>TOTAL</i>
<i>Koraput</i>	2,700.87	6,244.94	8,945.81
<i>P,Khemundi</i>	4,199.17	3,605.00	7,804.17
<i>Th.Rampur</i>	3,138.92	2,958.45	6,097.37
<i>Balliguda</i>	2,011.50	3,753.19	5,764.69
<i>GUNUPUR</i>	-	4,765.20	4,765.20
<i>MALKANGIRI</i>	-	3,051.68	3,051.68
<i>NABARANGPUR</i>	-	2,944.67	2,944.67
TOTAL In Rs.	12,050.46	27,323.13	39,373.59
<i>Programme Support Unit (PSU)</i>			1,845.19
TOTAL OTELP (Rs. In Lakhs)			41,218.79

ORISSA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME (OTELP)	
FUNDING AS ON 31ST March 2016 (Rs. In Lakhs)	
<i>IFAD</i>	17,906.66
<i>DFID</i>	6,035.43
<i>Gov't of Odisha</i>	12,530.66
<i>Sub Total</i>	36,472.75
<i>WFP</i>	2,664.15
<i>Beneficiary Contribution</i>	2,380.87
TOTAL	41,517.77

Chapter 8

OTELP plus: A strategic approach by the Govt. of Odisha to reach out more tribal community



Orissa Tribal Development Programme has taken mileage due to bottom of planning, execution and monitoring process by the community facilitated by the NGOs at the field and ITDA at district level. This programme purely managed, owned and controlled by the people forming different cadres of people institutions at different level. The success of this programme smelled across the stakeholders during the implementation period of OTELP in Phase-I & II.

Basing upon the degree of success of the programme, the chairperson of DPMC across all existing OTELP submitted strategic paper to operate the Extended OTELP in new additional MWSs with the existing mode of operation. There are nine proposals submitted to govt. for necessary approval. The Govt. of Odisha has pleased to approve those entire proposals with an estimated budget of Rs. 59997.63 lakhs. This extended OTELP in new additional MWS is termed as OTELP Plus which is formally inaugurated on 2nd October 2011. There are 585 MWSs are covered under OTELP Plus areas in nine districts. The details of the programme coverage under OTELP Plus are iterated below.

Sl. No	District	ITDA	No. of Micro Watersheds to be taken up under OTELP Plus	Proposed Area (in Ha.) for treatment
1	Koraput	Koraput	102	65824
2	Gajapati	Paralakhemundi	80	40959
3	Kandhamal	Baliguda	51	25500
4	Kalahandi	Th. Rampur	38	19000
5	Nawrangpur	Nawrangpur	50	27077
6	Malkanagiri	Malkanagiri	102	56621
7	Rayagada	Gunupur	50	25000
8	Keonjhar	Keonjhar	53	31376
9	Mayurbhanja	Karanja	59	18800
10	Sundergarh	Panposh	55	35780
	Total		640	3,45,937



The emphasis is given upon the convergence linked implementation programme. It is purely convergence programme. Fund will be leveraged from MGNREGA, BRGF, BKBK, Biju Gajapati & Biju Kandhamal, RKVY, NHM, SCA to TSP, SCA to SCP, Art.275, and state plan. The state plan is meant for Management cost & Capacity Building and rest of the programme cost will be sourced from convergence. The details are mentioned below.

Component and Source wise Total Budget for Nine districts in OTELP Plus		
Programme Component	Source of fund	Total budget (Rs. in lakhs)
Capacity Building For Empowerment	Govt	2705.3
Livelihoods Enhancement	Convergence & Govt.	31277.0
Development Initiative Fund	Govt	2818
Assistance to community for enhancement of food security	Govt	10120.13
Programme Management	Govt	13077.2
Grand Total		59997.63

Though OTELP Plus was launched in 2nd October 2011 but it was operationalised from December



2012. Primarily it was started in Koraput and Malkangiri district. Within these two years of time period all nine tribal dominated districts have submitted their proposal and approved by the gov. of Odisha. As it is already mentioned it was started in Koraput and Malkangiri districts, the progress of these two districts is also better as compare to others. Both the districts have prepared their

VDLP a vision document prepared by the community to built upon their livelihoods strategy with available resources. The details are given below.





The best coping mechanism for sustainable development in inaccessible tribal domain

- a) Promotion of different cadres of people institutions such as SHG, SHG Federation, Apex Federation, VDC, VLSC UG & CIG (Community Mobilization)
- b) Proper planning through preparing a vision documents called “Village Development Livelihoods Plan” is prepared by the community itself facilitated by a team of professional
- c) Involvement of community at large in terms of planning, execution and monitoring
- d) Unemployed local young youths are trained to extend their support for programme implementation
- e) Funds vested in their hand
- f) Facilitations of NGOs having their presence within the community
- g) Programme emphasizes upon the holistic development of the tribal poor through watershed approach
- h) A team of dedicated professionals placed at district level for facilitation and to take this programme forward
- i) The special emphasis is also given for different category of vulnerable families so that nobody should be excluded from the programme
- j) Social audit system is also developed where community members do the audit of all expenditure
- k) Different monitoring mechanism criteria are also in place to provide necessary support for best way of implementing the programme

All these above mentioned aspects make programme more successive and reach to the tribal people. More importantly they have been capacitated enough to do all these activities after withdrawal of the programme.

Table 1: Year wise Budget and Expenditure.

OTELP Plus		Rs. in Lakhs
Financial Year	AWPB	Expenditure
2011-12	41.98	584.59
2012-13	2339.00	986.91
2013-14	6617.39	2,299.95
2014-15	6045.11	4830.71
2015-16	8,521.07	4837.33

Table-2 :- list of focused activities under OTELP Plus during 2015-16.			
Focused list of Activities	Unit	Target	Achievement
		PHY.	PHY.
Wadi Plantation 2015-16	ha.	849	200
Informal seed production	Qtl.	936	1,180
Promotion of non-paddy crops substituting paddy	ha.	445	576
Millet development (Ragi & maize)	ha.	577	1,032
Fruit based agro-forestry in uplands	ha.	100	135
Commercial vegetable cultivation with drip and linked to vegetable cooperative under convergence	HH	600	942
Introduction of new crops (sunflower, tubers, spices & vegetables)	ha.	2,285	2,816
System of Rice Intensification	ha.	546	764
Practice of low monetary input (seed treatment, green manuring, seed replacement, line transplanting, bio fertilizer etc.)	ha.	1,604	2,134
Promotion of improved kitchen garden	nos.	1,334	1,012
Mushroom Cultivation	nos.	159	159
Individual broiler units (400 chicks capacity) established	nos.	45	80
Improved goat rearing units	nos.	420	146
Duckery units established	nos.	115	70
Storage godown/Multipurpose community enter	nos.	55	8
Piped water supply project for domestic use & irrigation (gravity fed /sanitary well/ bore well)	nos.	90	41
Chuan / Open well	nos.	33	62
Drying yard	nos.	58	18
Village drain	nos.	35	18
Lift Irrigation projects (river/ open source/ bore well/ dug well)	nos.	46	5
Diversion based irrigation structure (piped)	nos.	17	1
Check dam (New)	nos.	11	1
Small scale processing units (farm based)/manufacturing/ production units (off-farm/ nonfarm based)	nos.	263	262
Agricultural pump set (treadle pump/ diesel pump/power tiller)	nos.	1,394	636
Improved cook stoves (household level)	HH	910	215
Toilet & Bathrooms for individual households	HH	3,660	3,074
Solar lantern/ light	HH	765	136
Mechanical Filter Strip/ Stone Bund	ha.	174	61
Trench (CCT/ SCT)	ha.	105	86
Gully Control Structure (EGP / LBS / LBCD/ BWCD)	nos.	492	48
Land Levelling	ha.	164	90
Contour Bund/ Field Bund/Earthen Bund	ha.	196	95
30x40 Model	ha.	14	10
Rain water management structures	ha.	25	25
Checkdam (New)	nos.	23	10
Water Harvesting Structure/ Irrigation tank (New)	nos.	20	10
Farm Pond	nos.	129	59
Percolation tank/ sunken pond	nos.	114	64



List of Implementing Agency working with OTELP in different ITDAs

Sl No	Name of District	Phases	Name of Block	Name of FNGO
1	Koraput	II	Nandapur	Tagore Society for Rural Development
2	Koraput	II	Semiliguda	Tagore Society for Rural Development
3	Koraput	II	Pottangi	Life Academy of Vocational Studies
4	Koraput	II	Dasmantpur	Center for Youth & Social Development
5	Koraput	I	NARAYANPATANA	Harsha Trust
6	Koraput	I	BANDHUGAON	Foundation for Ecological Security
7	Koraput	I	Laxmipur	Center for Youth & Social Development
8	Koraput	Plus	LAMTAPUT	Professional Assistance for Development Action
9	Koraput	Plus	BOIPARIGUDA	CHEटना Organic Farmers Association
10	Koraput	Plus	BOIPARIGUDA	HARSHA TRUST
11	Koraput	Plus	BOIPARIGUDA	Center for Youth & Social Development
12	Koraput	Plus	NANDAPUR & POTTANGI	Tagore Society for Rural Development
13	Koraput	Plus	NARAYANPATANA	VIKASH
14	Koraput	Plus	NARAYANPATANA	Foundation for Ecological Security
15	Koraput	Plus	BANDHUGAON	HARSHA TRUST
16	Koraput	Plus	BANDHUGAON	HARSHA TRUST
17	Kandhamal	II	Balliguda	Professional Assistance for Development Action
18	Kandhamal	II	K.Nuagaon	Professional Assistance for Development Action
19	Kandhamal	II	Daringibadi	Integrated Tribal Development Agency (ITDA)
20	Kandhamal	I	Kotagarh	Jagurti
21	Kandhamal	I	Tumudibadha	Social welfare agency and training institute
22	Kandhamal	Plus	Tikabali	Professional Assistance for Development Action
23	Kandhamal	Plus	Tikabali	Social welfare agency and training institute
24	Kandhamal	Plus	Raikia	KALPAVRIKSH
25	Kandhamal	Plus	Chakapad	Organization for Rural reconstruction & Integrated Social Service Activities
26	Kandhamal	Plus	Chakapad	HARSHA TRUST
27	Malkangiri	II	Mathili	Integrated Tribal Development Agency (ITDA)
28	Malkangiri	II	Kudumulugumma	PARIVARTAN
29	Malkangiri	II	Khairput	HARMONY
30	Malkangiri	Plus	Korukonda	Sahid Laxman Nayak Development Society
31	Malkangiri	Plus	Kudumulugumma	Malkanagiri Organization for Development & Education
32	Malkangiri	Plus	Korukonda	Sisu O Mahila Kalan Samiti
33	Malkangiri	Plus	Kalimela	SAMUHA VIKAS
34	Malkangiri	Plus	Kudumulugumma	Integrated Tribal Development Agency (ITDA)

List of Implementing Agency working with OTELP in different ITDAs

Sl No	Name of District	Phases	Name of Block	Name of FNGO
35	Malkangiri	Plus	Korukonda	Tagore Society for Rural Development
36	Malkangiri	Plus	Kalimela	Gopabandhu Development Society
37	Malkangiri	Plus	Podia	Utkal Minorities Weaker Section Development Society
38	Malkangiri	Plus	Khairiput	Integrated Tribal Development Agency (ITDA)
39	Malkangiri	Plus	Mathili	Organization for Rural reconstruction & Integrated Social Service Activities
40	Malkangiri	Plus	Kudumulgumma	Watershed Support Services & Activities Network
41	Nabarangpur	II	Papdahandi	Institute of Rural Development & management Studies
42	Nabarangpur	II	Kosagumuda	Regional Center for Development Co-operation
43	Nabarangpur	II	Jharigaon	Integrated Tribal Development Agency (ITDA)
44	Nabarangpur	Plus	Tentulikhunti	Association of Volunteer Action
45	Nabarangpur	Plus	Tentulikhunti	Integrated Agency for Education Environment & Technology
46	Nabarangpur	Plus	Tentulikhunti	Bharatiya Agro Industries Foundation
47	Nabarangpur	Plus	Dabugaon	Institute of Rural Development & management Studies
48	Rayagada	II	Kashipur	SHAKTI Organization
49	Rayagada	II	Bissam Cuttack	Adivashi Krushi Swathya Sishkya Unyan Samiti
50	Rayagada	II	Gudari	Integrated Tribal Development Agency (ITDA)
51	Rayagada	II	Chandrapur	Integrated Tribal Development Agency (ITDA)
52	Rayagada	II	Muniguda	Friends Association for Rural Reconstruction
53	Gajapati	II	R. Udayagiri	Society for Welfare of Weaker Section
54	Gajapati	II	Mohana	Gram Vikash
55	Gajapati	I	Gumma	Centre for Community Development
56	Gajapati	I	Nuagada	Jana Kalyan Pratistan
57	Gajapati	I	Rayagad	Society for Welfare of Weaker Section
58	Gajapati	I	Nuagada	Jana Kalyan Pratistan
59	Gajapati	Plus	Nuagada	Jana Kalyan Pratistan
60	Gajapati	Plus	Mohana	Social Action for Community Alternative Learning
61	Gajapati	Plus	Mohana	Suraksha
62	Gajapati	Plus	Gumma	Centre for Community Development
63	Gajapati	Plus	R.Udayagiri	Institute of Social Action and research activities



List of Implementing Agency working with OTELP in different ITDAs

Sl No	Name of District	Phases	Name of Block	Name of FNGO
64	Gajapaati	Plus	R.Udayagiri	Society for Welfare of Weaker Section
65	Gajapati	Plus	Rayagada	Gram Vikas
66	Gajapati	Plus	Mohana	Suraksha
67	Kalahandi	II	Th.Rampur	Gram Vikas
68	Kalahandi	II	Lanjigarh	Gram Vikas
69	Kalahandi	I	Th.Rampur	Gram Vikas
70	Kalahandi	I	Th.Rampur	Antodaya
71	Kalahandi	I	Lanjigarh	Integrated Tribal Development Agency (ITDA)
72	Kalahandi	Plus	Th.Rampur	Professional Assistance for Development Action
73	Kalahandi	Plus	Th.Rampur	Gram Vikas
74	Kalahandi	Plus	Lanjigarh	Professional Assistance for Development Action
75	Kalahandi	Plus	Lanjigarh	Lutheran World Service International Trust
76	Keonjhar	Plus	Banspal	PRAKALPA
77	Keonjhar	Plus	Banspal	Professional Assistance for Development Action
78	Keonjhar	Plus	Banspal	Foundation for Ecological Security
79	Keonjhar	Plus	Harichandanpur	Women Organization for Socio Cultural Awareness
80	Keonjhar	Plus	Harichandanpur	Foundation for Ecological Security
81	Mayurbhanj (Karnjia)	Plus	Thakurmunda	Professional Assistance for Development Action
82	Mayurbhanj (Karnjia)	Plus	Jashipur	Lutheran World Service International Trust
83	Mayurbhanj (Karnjia)	Plus	Jashipur	Sambandh
84	Mayurbhanj (Karnjia)	Plus	Siluapada	Development of Humane Action Foundation





Programme Support Unit
2nd Floor, TDCCOL Building, Bhoi Nagar
Bhubaneswar - 751022
P.h: 0674 - 2542709, Fax : 2541772
E-mail : support@otelp.org