Odisha Tribal Empowerment and Livelihoods Programme (OTELP)

Project Completion Report 2016

Main Report and Appendices

Programme Support Unit
Odisha Tribal Empowerment and Livelihood Programme
Bhubaneswar

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

ODISHA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME (OTELP)

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Abbreviations and Acronyms

AOS	Annual Outcome Survey
AWPB	Annual Work Plan Budget
BPL	Below Poverty Line
CBO	Community Based Organization
CCT	Contiguous Contour Trench
CFR	Community Forest Right
CIF	Community Infrastructure Fund
CIG	Common Interest Group
COSOP	Country Strategic Opportunity Paper of IFAD
CRP	Community Resource Person
CSP	Community Service Provider
CTCRI	Central Tuber Crops Research Institute
DBI	Diversion Based Irrigation
DFID	Department for International Development
DIF	Development Initiatives Fund
DPMC	District Programme Management Committee
F&ED	Forest & Environment Department
FNGO	Facilitating Non- Government Organization
FRA	Forest Rights Act of Government of India
FRC	Forest Right Committee
GoI	Government of India
GoO	Government of Odisha
HDI	Human Development Index
ICAR	Indian Council of Agriculture Research
ICRISAT	International Crop Research Institute for Semi -Arid Tropics
IFAD	International Fund for Agriculture Development
IGA	Income Generating Activities
INR	Indian Rupees
INRM	Integrated Natural Resource Management
IPM	Integrated Pest Management
ITDA	Integrated Tribal Development Agency
JRM	Joint Review Mission
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MIS	Management Information System
MoRD	Ministry of Rural Development, GoI
MoTA	Ministry of Tribal Affairs, GoI
MTR	Mid Term Review
MWS	Micro-watershed
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Government Organization
NTFP	Non-Timber Forest Produce
OGLS	Odisha Government Land Settlement
OLM	Odisha Livelihood Mission
OPLE	Odisha Prevention of Land Encroachment

OSFDC	Odisha Schedule Castes Financial Development Corporation
OTDP	Odisha Tribal Development Programme
OTELP	Odisha Tribal Empowerment and Livelihood Programme
OUAT	Odisha University of Agriculture and Technology
PA	Programme Administrator
PCR	Programme Completion Report
PD	Programme Director
PDS	Public Distribution System
PESA	Panchayat Extension Schedule Areas
PFM	Participatory Forest Management
PRA	Participatory Rural Appraisal
PRI	Panchayat Raj Institution
PSC	Programme Steering Committee
PSU	Programme Support Unit
PVTG	Particularly Vulnerable Tribal Group
RDI	Rural Development Institute
RKVY	Rastriya Krushi Vikas Yojana, National Agriculture Development Project of GoI
RNGO	Resource NGO
RSVY	Rastriya Shrama Vikas Yojana, National Services Development Project of GoI
SC	Scheduled Castes
SCA	Special Central Assistance of GoI
SCSP	Special Central Assistance Scheduled Castes Sub Plan
SHG	Self-Help Group
SLPMC	State Level Programme Management Committee
SMS	Subject Matter Specialist
SOE	Statement of Expenditure
SRI	System of Rice Intensification
ST	Scheduled Tribes
ST&SC DD	ST and SC Development, Minorities and Backward Classes Welfare De partment
TDCC	Tribal Development Cooperative Corporation
TSP	Tribal Sub Plan
UG	User Group
VDA	Village Development Association
VDC	Village Development Committee
VDF	Village Development Fund
VDLP	Village Development & Livelihoods Plan
VLSC	Village Level Sub Committee
VSS	Vana Sarakshana Samittee (Forest Protection Committee)
WFP	World Food Programme
WHS	Water Harvesting Structure
WUA	Water User Association

Glossary

Annapurna	A public food distribution system of GoO
Bagada land	Bunded, rainfed, gently sloping upland
Bund	Small, earthen embankment constructed across slope to retain soil and water
Chula	Traditional cook stove using firewood
Khariff	Cropping season starting from July to November in India, rainy season
Mo jami mo dhia	A GoO programme, "my land, my rights"
Paadar land	Unbunded, rainfed, gently sloping upland where pulses, millets, paddy is cultivated
Palli sabha	Village council
Podu	Shifting (slash and burn) cultivation practiced by the tribal population
Rabi season	Cropping season starting from December to March in India, winter season
Resolution-2	An Act passed by GoO pertaining to transfer of immovable property of ST
Sarpanch	Administrative head of a village
Vasundhara	A policy research NGO in Odisha
Wadi	Dryland orchard

Currency equivalents

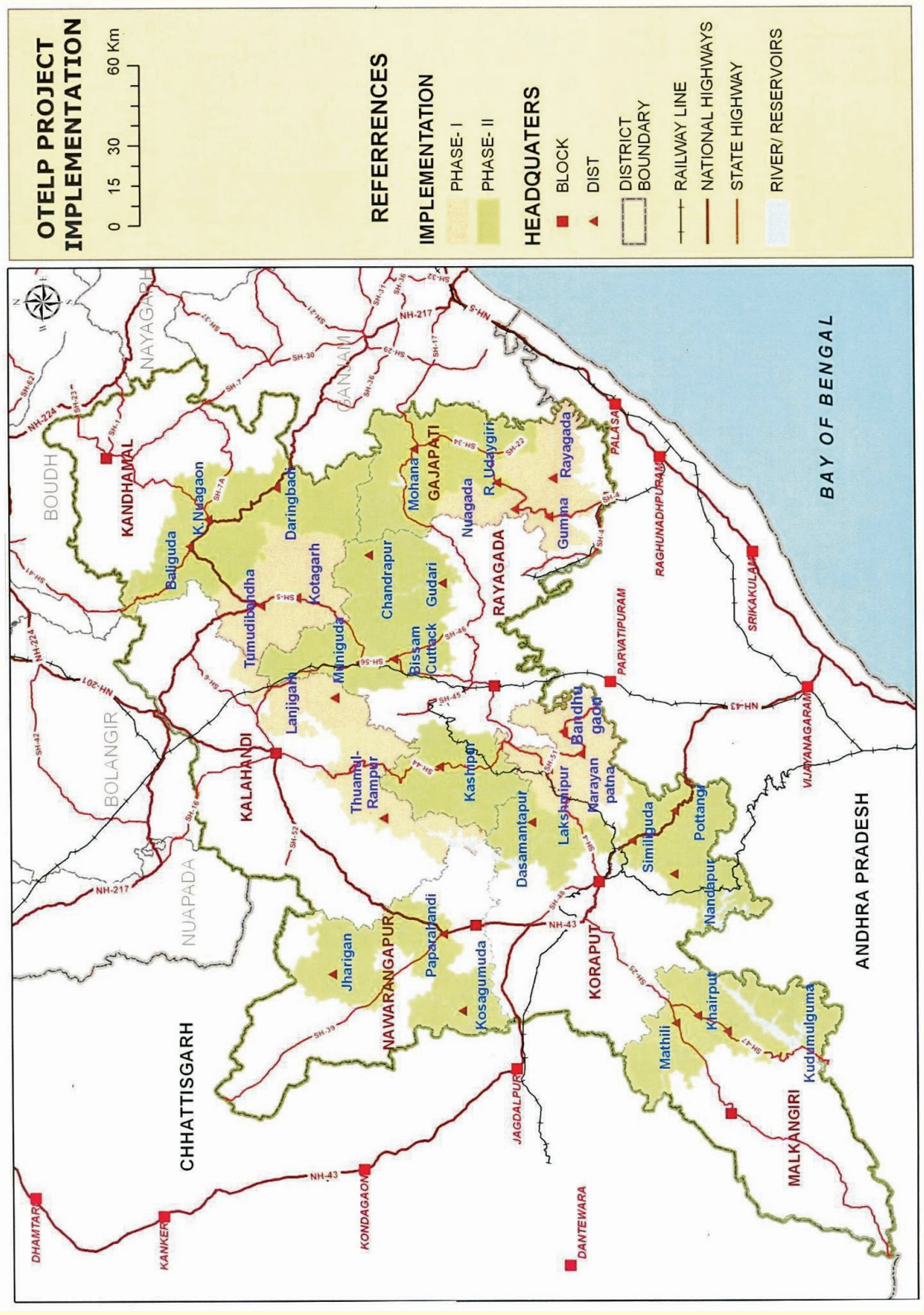
Currency Unit		
USD 1.00	=	INR 66.31 (As on 31.03.2016)
INR 1.00	=	USD 0.015

Fiscal year

1st April to 31st March

Weights and measures

1 kilogram (kg)	=	2.204 pounds (lb)
1 000 kg	=	1 metric tonne (t)
1 kilometre (km)	=	0.62 miles
1 metre (m)	=	1.09 yards
1 square metre (m2)	=	10.76 square feet (ft2)
1 acre (ac)	=	0.405 ha
1 hectare (ha)	=	2.47 acres
1 Lakh	=	100,000



Map of the project area

Project at a glance

BASIC INFORMATION

Country	**India**				
Project Name	**Odisha Tribal Empowerment and Livelihoods Programme (OTELP)**				
Key Data:					
IFAD Appraisal	Signing	Effectiveness	Mid-term Review	Original completion	Actual completion
23/04/2002	18/09/2002	15/07/2003	07/09/2006	31/03/2013	31/03/2016
Mid-term Review-II	Interim Evaluation	Original Loan closing	Actual loan closing	Number of extensions	
10/10/2010		30/09/2013	30/09/2016	2	
IFAD Financing:					
Loan	SDR million	16.05	% disbursed	100%	
Loan, top up	SDR million	9.90	% disbursed	61%	

Actual costs and financing (USD 000):						
Component	IFAD	DFID	WFP	GOVT	Beneficiaries	Total
Capacity building	3,541	2,384	0	2,546	0	8,471
Livelihood enhancement	17,188	9,305	5,580	8,765	4,626	45,464
Support to Policy Initiatives	58	0	0	192	0	250
DIF	10,520	415	0	5,054	0	15,989
Project management	2,554	1,336	0	3,814	0	7,704
Food handling	0	0	0	409	0	409
Total	33,861	13,440	5,580	20,780	4,626	78,287

DIF means Development initiatives fund; there are rounding of errors

Number of beneficiaries: (households)					
Total	Direct	Indirect	# of Women	ST	SC
76,490	56,180	20,310	55,540	42,200	8,070

Project Goal and Objectives:

The project goal and objectives were to "ensure that the livelihoods and food security of poor tribal households 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 and on-farm enterprises development"

Country partners:	
Ministry of Finance	Government of India
Executing agency	ST & SC Development Department, Government of Odisha
Implementing agencies	7 Integrated Tribal Development Agencies at district level
NGOs	34 partner NGOs
Village development committees	358 VDCs promoted by OTELP at grassroots level

Executive summary

1. ***Goal and objectives:*** *Odisha, one of the 29 States in India although endowed with rich natural resources, is also one of the poorest. The Schedule Tribes (ST) and Schedule Castes (SC) constitute nearly 40% of the population of Odisha. There are 62 Tribal groups and 13 Particularly Vulnerable Tribal Groups (PVTGs) living in the State, a majority of whom are economically, politically and socially backward. In spite of several interventions by both the State and Central Governments, the Tribal communities are far behind the so called mainstream of development. The Goal of the Odisha Tribal Empowerment and Livelihoods Programme (OTELP) was "to ensure that the livelihoods and food security of poor tribal households 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 and on-farm enterprise development".*

2. With a view to achieving this goal, the programme focussed on the following interventions: (i) building the capacity of marginal groups as individual, and grass-roots institutions; (ii) enhancing the access of the poor tribal people to land, water and forests and increasing the productivity of these resources; (iii) encouraging and facilitating off-farm and on-farm enterprise development focused on the needs of the tribal households; (iv) strengthening the institutional capacity of line agencies, partner NGOs, village development committees (VDCs) for working effectively for participatory programme implementation; (v) encouraging the development of pro-tribal policy initiatives such creating better access to land and forests; etc. (vi) using WFP food assistance in accelerating the land and water management activities.

3. ***Rationale and Components:*** *In line with IFAD's overall poverty alleviation goal, the rationale for OTELP was to assist the most disadvantaged tribal groups in Odisha, one of the poorest States in India. In response to this rationale, the Government of Odisha (GoO) has demonstrated its willingness by creating enabling environment for addressing land issues, community participation and role of NGOs as facilitators. The OTELP design reflected the strategic thrusts for IFAD's operations in India as outlined in the country strategic opportunities paper (COSOP), which identified tribal communities as a priority target group. The project design also built on IFAD's experience in assisting the development of tribal areas in Odisha, Andhra Pradesh, the North-East, Jharkhand and Chattisgarh. The OTELP with an overall budget allocation of USD 91.19 million at 2002 prices, comprised six components, namely (i) capacity building for empowerment; (ii) livelihood enhancement, (iii) support for policy initiatives, (iv) development initiatives fund, (v) programme management, and (vi) food-handling.*

4. ***Project duration, funding and financing:*** *The OTELP was financed by IFAD, DFID, WFP, Government of Odisha and contributions made by the participating communities. The IFAD loan approved in April 2002 became effective in July 2003 with completion date of 31 March 2013. There were two MTR missions, one in Sept 2006 and the other in Oct 2010. With the provision of IFAD additional finance the completion and closing dates of OTELP were extended to 31st March 2016 and 30th September, 2016, respectively.*

5. Overall, IFAD provided a total loan of SDR 25.95 million including the additional financing of SDR 9.9 million, DFID co-financed the OTELP with a commitment of GBP 15.08 million but withdrew after one tranche of GBP 7.54 million, WFP provided food assistance of USD 5.54 million equivalents and discontinued its support in 2012 following changes in its country strategy. The Government of Odisha provided a total counterpart fund of INR 1 204.79 million and this included the shortfall made good by the sudden withdrawal by DFID. The participating beneficiaries provided a total amount of INR 238.08 million, mostly in the form labour and materials.

*6. **Project area and implementation structure:** The project area was selected taking into account the basic socio-economic development indicators with focus on poverty situation and access to development resources. OTELP implemented in 30 Blocks under seven districts in the south-western region of Odisha covered 56 180 households in 358 micro-watersheds and 1 042 villages. These Blocks have high concentration of tribal households. Poverty rate of these Tribal communities at baseline was 63%. The project area is in remote locations devoid of critical infrastructure such as road network, water supply, markets, credit, etc. The households included predominantly 42,200 ST households, 8,070 SC households and 5,900 accounted for households from other communities.*

7. The OTELP had a three-tier implementation structure based on public-private-community partnership, comprising various CBOs promoted and capacitated by the partner NGOs at the grassroots level, and supported by ITDAs at the district level and a Programme Support Unit (PSU) in the ST&SC DD at the state level.

*8. **Relevance:** All interventions carried out under OTELP are relevant to the tribal communities, and the policy objectives of GoO and GoI. The approach and strategy employed by OTELP for achieving sustainable and equitable poverty reduction and improved livelihoods of tribal households was in accordance and harmony with the policies of Government of India and that of the Government of Odisha for the holistic development of tribal people. OTELP's achievements underline the importance of participatory planning and implementation, involving grassroots institutions to bring about changes in the lives of tribal people and to gain their confidence. These strategies and approaches have been recognised by the Government of Odisha as best practices for the overall development of tribal people and have thus gone beyond the project timeline and geographical limits. Overall, the performance is rated as highly satisfactory.*

9. Activities under the capacity building for empowerment component are highly relevant to the project area and its beneficiaries as this created awareness among the tribal households and others about their rights and given them opportunities for further development.

10. Interventions carried out under the component Livelihood Enhancement were highly relevant both from the view points of the beneficiaries and the potential of the project area. The development interventions undertaken under land and water management provided significant opportunities to the target group as these (i) generated immediate employment, (ii) improved the production potential of their land due to soil and water conservation works, (iii) created additional irrigation potential and (iv) provided opportunities for diversified livelihood options. One of the sub-components, "rural financial services" has been highly relevant to the project beneficiaries,

in particular the women, as these were adopted by them with high success rate. Community infrastructure was rated as highly relevant with nearly all households reporting that they were satisfied with the constructed schemes. All common facilities are managed by the respective VDCs. Interventions under policy initiatives were highly relevant to the project area and its communities. Over the years, OTELP facilitated provision of titles for house sites to 15 620 Tribal households on 178 ha of land and for farmland on 565 ha to 2 006 Tribal households. The OTELP has also facilitated allotment of individual land titles to 8 611 households and 74 community titles under FRA.

11. ***Project Effectiveness:*** *At completion the overall implementation performance has been satisfactory taking into account the targets in the project's Logical Framework and the overall achievement. Notwithstanding various setbacks the project has over the years implemented all the components in all project villages. Organisation of women into SHGs and a strong emphasis on participatory planning and implementation through VDCs has enhanced the self-confidence and reduced the sense of isolation of the tribal households. Various land and water resource development activities, though modest in coverage, have demonstrated pathways towards more sustainable natural resource management practices. Similarly, though limited in scale and depth, improvements in farming systems, including agriculture, vegetable cultivation, horticulture and livestock-based enterprises have improved food security, reduced distress out-migration and enhanced incomes as observed during field visits. Overall, the performance is rated as satisfactory.*

12. ***Project Efficiency:*** *Overall the performance is rated as moderately satisfactory. IFAD loans have been disbursed 97%, with the assistance of 17 941 ton of rice and 159.15 ton of pulses, the WFP grant was disbursed 45%, DFID grant was disbursed at 33.6% and it withdrew from OTELP in 2010 and the counterparts funds from GoO was disbursed at 217%.*

13. Following low achievements during the first four years, performance improved since 2007-08. Financial management and procurement is moderately satisfactory and the internal controls for approval of expenditure are satisfactory. The Accounting software was deployed at PSU and at ITDA level, but system synchronisation was not practiced. The statutory audit of the accounts of the project for the year ended 31 March, 2016 has been carried out by a firm of Chartered Accountants. The Programme has generally complied with the Programme Loan Covenants. Staff turnover hampered the performance of FNGOs. IFAD missions recommended a review of the remuneration policy of OTELP at the PSU and ITDA levels for contractual staff. A review was carried out but the recommendations have not been implemented.

14. While the OTELP has reasonable quality of output data for the project interventions, impact and outcome data were far from satisfactory and needed considerable fine-tuning. No impact assessment study was carried out due to absence of budget from the Government for this purpose nor an updated RIMS tables made available. Instead, IFAD requested IFPRI, to implement the endline survey but its results were inconclusive at the time of this mission.

15. Overall, Partners' performance has been satisfactory although there are significant variations between the performance of the partners, namely IFAD, WFP, DFID, UNOPS, GoO and the beneficiaries. IFAD Missions typically consisted of professionals with domain knowledge

of natural resource management, community and tribal development, SHGs and rural finance, gender, livelihood promotion, IFAD project financing procedures and project management. Missions always had at least one woman member.

16. Cost-benefit analysis yields an overall IRR of 21%. The estimated NPV for a 10% discount rate is INR 3 428 million and the BCR of 1.37. (Appraisal indicators were IRR 14%, NPV 229 million and a BCR of 1.17). On an average, a household's production benefits increase from 532 kg/household to over 1 283 kg of cereals, pulses and oilseeds. Incomes, excluding the value of family labour, increase from INR 1 938 to INR 36 990 at project completion. This would increase to INR 50 530 at full development. The key drivers of the economy of the project have been (i) vegetable production for sale with reasonable market access, (ii) irrigated agriculture and sale of surplus production, and (iii) production from wadi plantations. Other sectors like goat-keeping, pond fishery and IGA enterprises need substantial handholding for improving their efficiency.

*17. **Challenges:** Key challenges were (i) staff turnover and difficulties in deploying committed staff at field level operations, (ii) inadequate capacity building both for staff of NGOs and the PSU as training were to be infused for all new incoming staff and their orientation, (iii) difficulties in selecting qualified and committed NGOs for placing them in such remote area locations and working with the tribal, (iv) delayed start of livelihoods interventions as these were delayed due to sudden withdrawal of DFID from the operations, (v) low investment in agriculture and other such land-based production systems, and these in turn primarily due to lack of tenure and land rights to vast number of tribal communities, (vi) poor market access and inadequate market information, etc. These and other such challenges were partly met and yet the risks remain.*

18. Success factors: Significant success factors of OTELP have been (i) organisation, creating awareness and building the capacity of VDCs for the planning and implementation of their own plans; (ii) organising, building the capacity of women SHGs, providing them with equity capitals linked to their own regular savings; (iii) use of participatory approaches in grass-roots planning, implementation, monitoring and social auditing etc; and (iv) associating expert NGO in land survey and land alienation along with the CRPs who were identified by the respective communities etc.

19. Lessons learnt: There are several significant lessons learnt from OTELP and key among them are: (i) tribal development programmes may be designed with a short implementation period, coupled with a strong emphasis on MIS, M&E and transition management; (ii) convergence calls for coordination at the higher levels and a commitment to suitably change the operating procedures of the project; appropriate suggestions for policy modifications to facilitate convergence should be mandated in the project design; (iii) Tribal communities can plan and implement programmes for their own development provided there is adequate investment in facilitation and capacity development; the planning, implementation and reporting systems are transparent; mechanisms are set up for social audit and decision making is decentralised; (iv) a tribal development project with strategic elements of decentralization, participation, equity and empowerment, community-based approaches and transparency in planning and implementation can succeed even in areas affected by left wing extremism; (iv) dedicated project leadership with a full-time director for

strategic guidance, a collegiate organisation culture, technically qualified staff and partnership with civil society organisations accelerate the pace of implementation; (v) adopting an inclusive approach as demonstrated by OTELP, is crucial for gaining community ownership; (vi) while working with resource poor, tribal farmers who are new to intensive production techniques, longer handholding and support for input-output linkages is required for sustainable adoption of new technologies and individual-based enterprises perform better than community-based enterprises; (vii) organising women into SHGs, facilitating regular savings and providing revolving funds for credit significantly enhance the self-confidence of women; (viii) all policy initiative measures must have the effective partnership role by NGOs. These and other lessons and best practices from OTELP have been appropriately incorporated in the IFAD-supported OPELIP including the key learning of the OTELP fiduciary management.

20. ***Post-project sustainability:*** *GoO has included all project area villages under OTELP+, the programme for upscaling of OTELP activities to other Blocks served by ITDAs across the State. Although it is a sound exit strategy, the following steps would further ensure sustainability of OTELP interventions: (i) Grading and linking all SHG federations with OLM; (ii) Effectively using the convergence support to provide missing gaps in infrastructure and other support facilities; (iii) Handholding support for O&M of all works in particular irrigation, watershed works, etc., and training, inputs, O&M of all processing units, IGA units, fish-ponds, etc., (iv) Creating more access to inputs including seeds, credit and markets and market information*

21. ***Conclusions:*** *Overall performance of the project is rated as satisfactory. Its objectives were consistent with those of GoI and GoO, and modalities adopted for its implementation have been appropriate although there is space for fine-tuning in order to making the project a "tribal-centric project model" for the development of tribal in Odisha and elsewhere in India. Considering the geographical spread of project area, its remote area locations and the needs of the households, the investments appear justified although more resources should have been allocated for the livelihood enhancement.*

22. In such a socially sensitive project as OTELP, properly build up MIS records are critical as these are basic tools in assessing a number of performance indicators. Competent staff both at PSU and field levels is necessary for managing such a socially complex programme but this should be complimented by staff-friendly HR policies. Above all a dynamic leadership for strategic guidance is paramount important. Deploying competent NGOs for field level operations is central to the implementation of tribal development programme.

23. SHGs are practical and viable routes of empowering women in particular and also meeting small needs of credit to the member households and these should be effectively linked to banks and OLM so that these could play a higher level functions as expected of them. Markets and market-linkages are next immediate steps for ensuring that the participating tribal households get fair prices for their farm commodities and products.

ODISHA TRIBAL EMPOWERMENT AND LIVELIHOODS PROGRAMME

PROJECT COMPLETION REVIEW REPORT

A. INTRODUCTION

1. The Project "Odisha Tribal Empowerment and Livelihoods Programme" (OTELP) was funded by IFAD, DFID, WFP, Government of Odisha and contributions made by the participating communities. The IFAD loan approved in April 2002 became effective on 15th July 2003. The project experienced initial delays due to organisational and institutional constraints. There were two MTR missions one in Sept 2006, which recommended dropping Sundergarh district from the project area, and the other in Oct 2010. With the provision of IFAD additional finance the completion and closing dates of OTELP were extended to 31st March 2016 and 30th September, 2016, respectively. In line with IFAD's overall poverty alleviation goal, the rationale for OTELP was to assist the most disadvantaged tribal groups in one of the poorest states in India, Odisha. In response to this rationale, the Government of Odisha (GoO) has demonstrated its willingness to create necessary enabling environment for addressing land issues, community participation and role of NGOs as facilitators.

2. The purpose of the Project Completion Review (PCR) is to "assess and document OTELP's overall project implementation performance and results achieved both for accountability and learning". The PCR report is considered best suited to capture immediate results achieved by the project at its completion. The last supervision mission of IFAD was in November 2015, which suggested to the Programme Support Unit (PSU) commencing the arrangements for the preparation of PCR consistent with the IFAD Guidelines for PCR preparation.

3. Overall, IFAD provided a total loan of SDR 25.95 million including the additional financing of SDR 9.9 million, DFID co-financed the OTELP with a commitment of GBP 15.08 million but withdrew after one tranche of GBP 7.54 million, WFP provided food assistance of USD 5.54 million equivalents and discontinued its support in 2012 following changes in its country strategy. The Government of Odisha provided a total counterpart fund of INR 1,204.79 million and this included the shortfall made good by the sudden withdrawal by DFID. The participating beneficiaries provided a total amount of INR 238.08 million mostly in the form labour and materials.

4. In compliance with the IFAD Financing Agreement, the PSU has started the preliminary activities for the preparation of PCR in January 2016. For this purpose, the Project Director, OTELP has set up a special team of officers[1] and assigned them the responsibility with specific time frame for completing the task. The team has undertaken field visits to all ITDAs, gathered

[1] The PSU Team comprised Mr Goutam Kumar Mohanty, Additional Programme Officer, Mr Suhas Dey Chief Finance Officer, Mr Dipti Ranjan Gantayat, Programme Officer, Ms Kalyani Mishra, Programme Officer (M&E), Mr Sukanta Kumar Mohapatra, Manager (MIS), Mr Prasanna Kumar Dalabehera, Programme Officer (Land and NRM), Dr Kiran Kumar Parida, Livestock Expert, Mr Surendra Nath Senapati, Senio Engineer, Mr Pradipta Kumar Mohanty, Livelihood Expert and Mr Manoranjan Mangaraj, GIS Expert and Mr Srikanta Prushty, Project Director, OTELP provided overall guidance and support.

required data and information and also collected case studies relating to a number of interventions under OTELP. The Team also held interviews with a number of stakeholders in the field such as ITDAs, VDCs, SHGs, FNGOs and others, besides various government agencies involved with the project[2] . In the reparation of the PCR, the PSU team has made use of several relevant documents, in particular, IFAD appraisal report-2002, IFAD mid-term reports, project annual progress reports, reports of annual outcome surveys, thematic studies on land and water management, impact assessment survey carried out in 2004, reports of IFAD joint review missions, the draft endline assessment report carried out by IFPRI in May 2016.

5. This PCR report is a joint effort of the PSU Team and the IFAD mission[3]. The PSU team presented the draft PCR report in a Stakeholders' workshop organised on 29 June 2016 in which all 17 Project Administrators of the IFAD-assisted OPELIP were also present. In this workshop, the key lessons learned from the implementation of OTELP that will feed into the interventions under OPELIP were also discussed. Key findings of PCR were shared with the Government of Odisha at a wrap up meeting held on 4 July 2016 at Bhubaneswar.

6. The PSU Team would like to place on record the support and assistance it received from the staff and officials of the ITDAs, the Programme Director without whose help and assistance the Team would not have accomplished its tasks, for all the logistic support, data and other arrangements provided by the facilitating NGOs and the community leaders for their support. It is also pleased to place on record the participation by the MPA Project Administrators in the stakeholders' workshop.

B. PROJECT DESCRIPTION

B.1 Project context

7. Odisha, one of the 29 States in India although endowed with rich natural resources, is also one of the poorest states. The Schedule Tribes (ST) and Schedule Castes (SC) constitute nearly 40% of the population of Odisha. There are 62 Tribal groups and 13 particularly vulnerable Tribal groups (PVTGs) living in the state, a majority of whom are economically, politically and socially backward. In spite of several interventions by both the State and Central Governments, the Tribal communities are far behind the so called mainstream of development. Focusing on the STs, the Government of India and State Government jointly sought assistance of IFAD for its financial support for the holistic development of the Tribal communities in the state.

8. OTELP was implemented in 30 Blocks of seven districts by the respective Integrated Tribal Development Agencies (ITDAs) in the south-western region of Odisha covering 56 180 households in 358 micro-watersheds and 1 042 villages. These Blocks have high concentration of tribal households. Poverty rate of these Tribal communities at baseline was 63% (compared to

[2]The itinerary and the list of persons, the team and IFAD missions is provided in Appendix-2

[3]IFAD mission included Mr A M Alam, Mission Leader (Project Management and Economic Analysis), Mr Deep Joshi, NRM and Institutions Specialist, Mr S Sriram, Finance Management Specialist, ICO, IFAD, Ms Irie Yuka, NRM Specialist (Young Professional from FAO, Rome), Mr Vincent Darlong, Country Programme Officer, ICO, IFAD, New Delhi. Ms Rasha Omar, Country Representative, IFAD participated in initial discussions with PSU and in the wrap meeting.

60.80% for the Odisha state). The project area is in remote locations devoid of critical infrastructure such as road network, water supply, markets, credit, etc. Of the project households, some 12 500 were landless and had also no homesteads of their own. Even basic health care facilities and support services were inadequate. The child mortality rate was 137; female literacy was 11% and overall literacy of 24%. Less than 3% of the households had latrines; around 37% access to safe drinking water, 7% with electricity, 9% with pucca house and only 8% had access to medical services.

9. Major parts of the programme areas in the southern tribal belt are plateaus at altitudes ranging between 800 and 1 000 m, with peaks of the Eastern Ghats rising to 1 500 m. Large variations in hydrology and vegetation within short distances create a mosaic of extremely diverse environment. A characteristic climatic feature of the area is that its proneness to drought, due not so much to a scarcity of rainfall (the area receives 1 040-2 899 mm of rainfall per annum) but its extreme unreliability. Dry spell of 15-25 days can destroy crops during the main cropping season of June to October. Nearly 76% of farmers are small farmers cultivating less than 2 ha of land and over 50% of farmers have less than 1 ha of land. Landlessness is high (20-30% households with absolute landlessness; over 50% landless households as per definition of the state government) but a sizable number of them are engaged in share cropping. Agricultural productivity is low with an average productivity of 350 to 450 kg/ha of rice, one of the major crops of the project area.

10. Access to land is the key defining factor in vulnerability to poverty. On average, agriculture provided households with sufficient food for a maximum of six months in any normal year whilst those households that relied on shifting cultivation (podu) their production covered barely one to two months. The reason for seasonal food shortage was mainly due to low productivity of land. At baseline, the food security was about 43%? Ecological imbalance has been seriously undermining the livelihood patterns of tribal households and increasing their vulnerability. Shifting cultivation has also been leading to severe soil erosion, loss of soil fertility and declining productivity of crops. With their increased dependence on land and agriculture, lack of title to land and the related potential for dispute was a major source of tension in the tribal area. Paradoxically, tribal areas also contain a considerable mineral wealth, and mining operations and these have been resulting in widespread displacement of tribal population[4].

11. The poverty of the tribal people was associated mainly with remoteness, lack of infrastructure and education, limited access to market and a complete lack of rural financial services. Studies of various poverty alleviation programme indicated that the risk of "left-out" error was greater than that for encroachment by the relatively better-off population

B.2 Project objectives

12. The Goal of the Odisha Tribal Empowerment and Livelihoods Programme is "to ensure that the livelihoods and food security of poor tribal households are sustainably improved through

[4]At the time of Appraisal in 2002, while tribal population account for 22% of the total population of Odisha, they comprised 50% of the displaced persons. As land rights of most of the tribal communities were not recognized by the state, mining companies used this to avoid paying compensation or providing rehabilitation measures. Those without titles to their land were not entitled to compensation, even though they have been cultivating their land for generations.

promoting a more efficient, equitable, self-managed and sustainable exploitation of the natural resources at their disposal and through off-farm and on-farm enterprise development". With a view to achieving this goal, the programme focussed on the following interventions: (i) building the capacity of marginal groups as individual, and grass-roots institutions; (ii) enhancing the access of the poor tribal people to land, water and forests and increasing the productivity of these resources; (iii) encouraging and facilitating off-farm and on-farm enterprise development focused on the needs of the tribal households; (iv) strengthening the institutional capacity of line agencies, partner NGOs, village development committees (VDCs) for working effectively for participatory programme implementation; (v) encouraging the development of a pro-tribal policy initiatives such creating better access to land and forests; etc (vi) using WFP food assistance in accelerating the land and water management activities.

13. Components: The OTELP with an overall budget allocation of USD 91.19 million at 2002 prices, comprised six components, namely (i) capacity building for empowerment; (ii) livelihood enhancement, (iii) support for policy initiatives, (iv) development initiatives fund, (v) programme management, and (vi) food-handling. These are briefly described below[5] and major outputs and outcomes are described under Section D-1.

14. Component-1: Capacity building for empowerment: With a total budget allocation of USD 9.6 million, the component had three sub-components: (i) capacity building of communities, (ii) beneficiary skills upgrading, and (iii) capacity building of support agencies. Under capacity building of communities, 360 village development committees (VDCs), one in each micro-watershed, 2,160 SHGs, and exposure visits to all SHGs and VDC leaders were to be provided. Under beneficiary skills upgrading, 1,080 pump-set operators, equal number of master trainers, training to 180 beneficiary groups on participatory forestry management, training of 5,400 persons in livestock and aquaculture and supporting 180 study tours were provided. Under the last sub-component, some 1,440 persons from NGOs in 60 groups were to be imparted training in village planning, SHG development, micro-planning and participatory approaches and staff members of line agencies were to be imparted training in land and water management, agriculture, forestry etc and also TA support.

15. Component-2: Livelihood enhancement. With a total budget allocation of USD 64.5 million, this component comprised the following four sub-components: (i) land and water management, (ii) participatory forest management, (iii) production systems enhancement including agriculture and horticulture, livestock and aquaculture development, and rural financial services, and (iv) community infrastructure.

16. A Land and water management fund was to be set up for financing watershed development works selected by the communities with the guidance of technical experts. A typical watershed area of 650 ha, with about 200 ha of arable land and average development cost of INR 4150/ha was provided and beneficiaries providing voluntary labour up to 20%. Provisions for some 90 river gauging stations, food payment for watershed works, and study tours to master trainers, site supervisors and engineers were included. Remote sensing mapping of watersheds in the Gajapati

[5]Source: OTELP Costab Tables, 2002 at the time of Appraisal; There are disconnect between provisions in costab Tables and the descriptions in Appraisal Main Report from para 77 to 92.

district was also to be prepared.

17. Participatory forest management: Around 100 ha of notified and non-notified forest land in each watershed village were to be under modified joint forest management and 20 ha in each watershed village under forest treatment works. Training and information materials to the communities, NTFP processing and marketing arrangements, 33 person-month technical assistance and support for thematic studies were also other provisions.

18. Agriculture and horticulture development: Improvement in agricultural productivity was to be promoted through training and demonstrations (2 per village for first 4 years and one thereafter) in improved cultural practices, improved varieties, changes in cropping sequences and rotation, and through conversion of podu cultivation to settled cultivation on podu sites through mixed tree and annual crops. Attendant facilities to be provided were field implements, 5,400 tool sets for homestead garden, animal-drawn seed drills etc for each village, supply of 2.17 million tree seedlings and 30 persons-month of technical assistance.

19. Livestock and aquaculture development: Under this sub-component, 450 vaccination kits and thermocole flasks, 30 deep freezers, and equipment for sterilisation, 450 sets of furniture for livestock workers and inspectors, 450 demo on raising poultry on white ants, and other support facilities like training, 60 bucks for breeding, 36 person-months TA, revolving fund support for vet medicines and vaccines etc were to be provided. The focus was to be on small stock such as poultry, goats, and pigs and as well as fish farming[6].

20. Rural financial services: Under this sub-component, the programme was to support 3,240 existing and new SHGs, supplementing their savings with equity capital for leveraging additional capital from banks, entrepreneurial and skills training to member beneficiaries and awareness-raising of bankers through participatory workshops[7].

21. Community infrastructure: The programme was to set up a flexible fund of USD 5.0 million for community infrastructure (CIF) mainly for filling the critical gaps in infrastructure for small and remote communities. Access to the CIF was to be through a demand-driven approach. These infrastructure works were to include drinking water supply, village road upgrading, storage facilities, community work-sheds, mills, expellers, etc. All such works were to be participatory and the communities were to provide at least 15% of costs in the form of labour or local materials.

22. Component-3: Support for policy initiatives. With a budget allocation of USD 1.9 million, this component was to support the operationalisation of the existing policy initiatives of the GoO in relation to Tribal access to land and forests through (i) providing legal defence fund to assist the tribal households and NGOs in pursuit of land alienation or restoration cases, (ii) supporting operational costs involved in establishing mobile squads for the detection of land alienation cases and enforcement of land restoration, and (iii) funding the survey of land between 10° and 30° slope and issue of permanent titles. The survey was to be undertaken using Total Stations and titles to be issued in the joint names of husband and wife. The component also had provisions for studies

[6]No provisions were made for fishery development, pond fishery or any of that sort in the costab

[7]No provisions were made for these activities in the costab

on key policy issues relating to land alienation, indebtedness, food security, tenancy issues, NTFP marketing, displacement of tribal etc. In addition, there are several cases on non-dongar[8] lands where possession of tribal has not been recorded, or possession over ceiling surplus land has not been delivered to the tribal and such cases occurring in the Programme villages should also be regularised.

23. Component-4 Development initiatives fund: Under this component a DIF was to be set up with a total amount of USD 4.6 million and these funds were to be allotted on annual basis for funding activities as expressed by the communities through participatory planning process. Under IFAD Additional financing an amount of USD 15.0 million of additional fund was allocated in 2014 for this component. Through this fund, OTELP was to have provided the flexibility of allocating additional funding for well performing activities in demand from the communities and also for new activities, which became feasible and attractive in the course of Programme implementation. GoO was to to access the GOI schemes to cover 50% of the cost, but in the event of undue delay, the Programme funds was to be used to fund the full cost of the process.

24. Component-5 Programme management: This component was to cover the costs of programme management at the state and field levels. A fully staffed programme support unit within the ST&SC Development Department, Government of Odisha at state level and 7 Integrated Tribal Development Agencies operating under ST & SC DD at district levels were to be supported with 19 vehicles, 80 motor cycles, 8 sets of office equipment, 60 person-month of TA, setting up of M&E unit at PSU and ITDA levels, facilities for training and capacity building, process documentation, staff salaries of 6 staff officers at PSU and 68x9 staff officers at ITDAs and their operating costs. The provisions were also included workshop, training and facilities for annual audit.

25. Component-6 Food handling: WFP was to provide a total food assistance of 34,000 ton of rice equivalent and the programme was to cover the costs of transport, storage and distribution and monitoring the utilisation[9]. A total sum of USD 0.85 million was provided to be spent over a 5 year period.

26. Innovative features: Innovative features of OTELP consonant with IFAD's corporate strategy were (i) devolving responsibilities to the grass-roots level communities and at the same time strengthening them, (ii) empowering tribal population for pursuing their socio-economic development that are compatible with their identity, (iii) adopting a highly process-centric and flexible, demand-driven approach to planning and execution and ensuring the relevance of its activities to the needs and aspirations of the Tribal, (iv) the facilitating access of the Tribal to natural resources, financial services (through SHGs, supply of revolving funds and seed capital support), markets etc.

B.3 Implementation modalities

27. At Appraisal it was envisaged that the Project would be funded to a tune of INR 4 648

[8]Dongar land means Hill slopes on which podu cultivation is practiced; non-dongar lands denote valley lands;

[9]The OTELP Costab Tables had provisions only for a five year period

million (USD 91 million) at December 2001 prices and was to be financed through an IFAD loan of USD 20 million, DFID grant of USD 40 million, WFP Food Assistance worth USD 12 million, GoO contribution of USD 9.6 million, contributions from formal Financial Institutions USD 0.4 million, and contributions from the communities of USD 9 million. Total duration of project implementation was set at 10 years[10].

28. **Implementation structure:** The OTELP had a three-tier implementation structure based on public-private-community partnership, comprising various CBOs promoted and capacitated by the partner NGOs at the grassroots level, and supported by ITDAs at the district level and a Programme Support Unit (PSU) in the ST&SC DD at the state level. Partner NGOs were engaged to promote CBOs and provide them support for capacity-building, micro-planning and supervision through a dedicated watershed development team of four technical staff in a cluster of 10 contiguous micro-watersheds each of approximately 500 ha.

29. The partner NGOs promoted SHGs as neighbourhood affinity groups of 10 to 15 women to take up savings and credit activities and a VDA of all adults in each micro-watershed, incorporated under the Societies Registration Act 1860 for planning and implementation of project activities. A VDC of 15 to 17 members, including a president, a secretary and village volunteers representing different villages in the micro-watershed as well as the SHGs was set up in each VDA. VLSCs were formed as sub-committees of the VDC at each village in the watershed to prepare and implement village development and livelihood plans. Each VDC was supported by a community service provider (CSP) and a Social Mobilizer in programme implementation. As and when needed, Resource NGOs (RNGO) were engaged to provide technical support for specific activities, such as SHG development, marketing, land survey and various livelihood themes.

30. A Programme Steering Committee (PSC) established at the state level, chaired by the Chief Secretary with representation from key line departments, Financial Institutions and NGOs is to provide overall policy guidance to the Programme. At the district level a District Programme Management Committee was set up, chaired by the respective District Collectors, to provide regular management support. The PSU at the state level and the ITDAs had a complement of Subject matter Specialists (SMS), headed, respectively, by a Project Director and the Project Administrator ITDA (PA-ITDA).

31. **OTELP implementation strategy:** Overall strategy focused on empowering the tribal communities and enabling them to enhance their food security, increase their incomes and improve their overall quality of life through more efficient natural resource management, more productive and environmentally sound agricultural practices and through off-farm and non-farm development. Strong emphasis was placed on promoting participatory processes, building community institutions such as VDCs, fostering self-reliance and respecting the indigenous knowledge and values embedded in tribal cultures. OTELP adopted a flexible, non-prescriptive, process-oriented approach, thus enabling the stakeholders to determine the scope of Programme interventions, their timing, pace and sequencing. Thus the development interventions were identified by the communities through a participatory planning exercise. The Programme adopted a "watershed plus" approach, using a micro-watershed as a base for natural resource management but with the

[10]Source: IFAD Appraisal Main Report 2002, Page 24

scope to address broader issues of sustainable livelihoods including savings and credit, access to common property resources, issues related to NTFPs and community infrastructure. The programme worked in synchronisation with on-the-ground development interventions and in partnership with the government to addressing key policy issues. WFP food assistance enhanced the capacity of food insecure households in participating in development interventions and improved their overall well-being.

B.4 Target groups

32. **Project area.** The project area was selected taking into account the basic socio-economic development indicators with focus on poverty situation and access to development resources. The project was implemented in 30 of the most backward Blocks in seven districts, namely Gajapati, Kalahandi, Kandhamal, Koraput, Malkangiri, Nawarangpur and Rayagada in South-West Odisha. These Blocks have been selected based on the degree of backwardness in terms of socio-economic indicators such as food insecurity, concentration of Below Poverty Line population among Scheduled Tribes (ST) and Scheduled Castes (SC), malnutrition, gender disparity, infant and child mortality, risks of natural disasters like drought, preponderance of scheduled populations, contiguity, and historical presence of suitable NGO partners. Within these Blocks, micro-watersheds in the upper reaches of larger watersheds with more than 40% treatable and cultivable wastelands and with at least 60% population comprising ST and SC were prioritized.

33. **Target groups.** The major tribal groups are Soura, Lanjia Soura, Kondha, Kutia Kondha, Dongria Kondha, Paraja, Bonda, Bhumija and Koya. The Soura, Lanjia Soura, Kutia Kondha, Dongria Kandha and Bonda are classified as Particularly Vulnerable Tribal Groups (PVTG) due to their extreme backwardness. Tribal households practiced a mix of shifting agriculture and settled agriculture systems with informal access to all types of land including a small area under irrigated lowland paddy but putting no more than 1.0 ha under crops comprising besides paddy, niger, pigeon pea, mustard, maize, pulses and all crops under shifting cultivation grown in the khariff season. Under settled agriculture, they cultivate lowland paddy and with smaller areas under rainfed conditions in the paadar[11] upland. Mostly the poor and very poor tribal access the rainfed upland harvesting normally low production and using traditional crop varieties. Overall their cropping intensities varied between 90% and 110% but with often low production mostly for own consumption and very limited quantities for sale in the local and nearby markets. In the bagad[12] area, they planted only tree and fruit crops such as custard apple, jackfruit, etc. The tribal households tend small ruminants but in small numbers, rarely tend pigs and also keep backyard poultry. They plant a few seasonal vegetables mostly for consumption.

34. Being mostly illiterates, they were often exploited by money-lenders and traders. They had limited access to formal financial services, markets, health services, safe drinking water, education, etc. They were compelled to sell their farm produce often at detrimentally very low prices. Borrowing from the traditional money-lenders was frequent and most of tribal households were in high debts. Outmigration of farm labourer in search of employment was often very high. Women carried the burden of households' maintenance and in addition to, fetching water from far

[11]Paadar land is unbunded, rainfed, genttly sloping land on which millets, pulses and even paddy are cultivated

[12]Bagada is bunded, gently sloping land

away sources and collecting fuel woods from nearby forests.

35. The tribal households made up their meagre incomes from farms from the collection and selling of NTFP products such as lac, tassar cocoons, bamboo poles, kendu leaves, tamarind, Mahua, honey, tubers etc. On an average a tribal household spent about 120 days a year in such activities at baseline

36. While all the target groups benefitted from the project interventions under the different components of OTELP, about 56% of all capacity building programmes were targeted at women; and land and water development activities along with agricultural interventions benefited over 81% of target households. Nearly 11,257 or 20% households including from the landless benefited from livestock interventions, mainly small ruminants and backyard poultry[13].

37. **Gender mainstreaming.** The project design ensured gender mainstreaming in all its activities as reflected mainly in three indicators: (a) representation in CBOs; (b) women's access to credit; and (c) drudgery reduction for women. The project has developed a gender strategy to address gender equality and women empowerment, and the overall gender mainstreaming has been highly satisfactory. Following the strategy, the project has ensured gender inclusiveness in all its 358 VDCs and 1 007 VLSCs, with both having nearly 35% women representations. Both women and men are included in all VDAs.

38. The project has formed 4 273 women SHGs with a membership of 51 276. The project provided over INR 96.8 million (nearly 4.7% of Livelihood Enhancement allocation) as rural finance to support SHGs, of which nearly INR 71.2 was Revolving Fund available to the members for lending. Nearly 63% of the members in 2016 had access to credit (both from SHG Revolving fund and bank linkage) as against the baseline of 14.9%, only from SHGs in 2005. During 2015-2016, nearly 1.3% of the women SHG members have been elected in local bodies of Gram Panchayat under the PRI system of grassroots governance. Over 66.8% (37 549 HHs) have access to drinking water, smokeless cook stoves and sanitation (only 12% households in Gajapati district reported having toilets at baseline in 2005), all of which are considered by the communities as drudgery reducing interventions[14].

C. ASSESSMENT OF PROJECT RELEVANCE

C.1 Project context

39. All interventions carried out under OTELP are relevant to the tribal communities, policy objectives of GoO and GoI. The approach and strategy employed by OTELP for achieving sustainable and equitable poverty reduction and improved livelihoods of tribal households are in accordance and harmony with the policies of Government of India and that of the Government of Odisha for the holistic development of tribal people. OTELP's achievements underline the importance of participatory planning and implementation, involving grassroots institutions to

[13]Refer Table-19, Appendix-15 for more details

[14]Refer Table-21, Appendix-15 for more details

bring about changes in the lives of tribal people and to gain their confidence. These strategies and approaches have been recognised by the Government of Odisha as best practices for the overall development of tribal people and have thus gone beyond the project timeline and geographical limits[15]. Overall, the performance is rated as highly satisfactory.

40. Activities under the **capacity building for empowerment component** are highly relevant to the project area and its beneficiaries as this created awareness among the tribal households and others about their rights and given them opportunities for further development. The empowered village development committees were able to prepare micro-plans for their development based on available potential and implement them using the funds placed at their disposal. The training and capacity building interventions were basic and fundamental for the project households to move farther, in particular the training provided to the members of the SHGs and their leaders were highly relevant and were appreciated by the target group households. Simultaneously, the support provided through the capacity building to the staff of partner NGOs and ITDAs were most appropriate and relevant to the project as these enabled them have a great sense of participation and in understanding the needs and aspirations of the tribal households and other beneficiaries.

41. VDCs continue to meet, plan and implement ongoing project activities. However, due to lack of project funding during the fiscal 2015-16, several activities were suspended and this had caused some disaffection, especially among those who were eligible for support from the IFAD Additional Financing. While most SHGs meet, save and borrow fairly regularly, there were also SHGs that had stopped functioning. Among the functioning SHGs there is evidence that the members engage in expanding their livelihood options, lobby for community infrastructure and interact with banks. Federations of SHGs have been developed at a cluster and district level and these bodies are engaged in financing member SHGs. These groups are also linked to the Odisha Livelihoods Mission (OLM), with Community Resource Persons (CRPs) from both OTELP and OLM interacting with them. Several groups have received financial assistance from both OLM and OTELP.

42. Several of the SHGs are likely to remain functional post OTELP, especially if the GoO, OLM and local NGOs continue to work with them. However, all CBOs formed under OTELP would require further facilitation to operate autonomously, especially to link with government programmes and banks and manage backward and forward linkages for livelihoods. This needs to be understood in the context of the extreme disadvantages the OTELP target communities began with.

43. **Livelihood enhancement:** Various interventions carried out under the component Livelihood enhancement were highly relevant both from the view points of the beneficiaries and the potential of the project area. The development interventions undertaken under land and water management provided significant opportunities to the target group as these (i) generated immediate employment, (ii) improved the production potential of their land due to soil and water conservation works, (iii) created additional irrigation potential and (iv) provided opportunities for diversified livelihood options through crop-diversification, planting of mango and cashew plantations using

[15]The OTELP model has been accepted by the Government of Odisha as appropriate for tribal development and is being replicated in all ITDA Blocks in Odisha as 'OTELP Plus'.

the wadi model, backyard poultry, goat-rearing, activities under social forestry, construction and use of fishponds on community basis, development of community infrastructure to fill critical gaps in the provision of key rural infrastructure and also to create necessary economic infrastructure, etc.

44. The rainwater conservation and land development activities have enhanced productivity and reduced soil degradation. Due to limited budgets, the overall coverage is, however, quite small vis-à-vis what is needed. Land and water development activities should be given high priority under OPTELP Plus in all the project area villages using the convergence with MGNREGA.

45. Overall coverage of agriculture and horticulture development activities remains modest and crop productivity, as compared to overall potential and as judged from the standing crops and discussions with project beneficiaries during field visits, remains low. These need to be given focused attention, along with land and water resources development, in the coming years under OTELP Plus to deepen and stabilize impact.

46. Rural financial services: One of the sub-components, "rural financial services" has been highly relevant to the project beneficiaries; in particular the women as these were adopted by them with high success rate. This intervention through the promotion of SHGs as savings and credit groups and linking them with formal financial institutions to augment their capital base was highly relevant as this provided opportunity of creating and managing their own capital base to the participating members. The revolving funds and seed capital received from OTELP were effectively rotated through internal lending with a reasonable level of performance and at the same time, they were free from the debt-traps of the money-lenders. According to MIS data 21% of SHG loans were for consumption, 68% for off-farm activities and production purposes while a very small percentage of loans for debt redemption[16]. Federations of SHGs, unless adequately capacitated, are vulnerable to mismanagement by the financial intermediaries.

47. Lack of a comprehensive MIS[17] to track the activities of SHG and their Federation has compromised a Programme-wide analysis of performance under Rural Financial Services. The redeeming feature of RFS is that the target group begun to save and have ready access to small loans for consumption (food, health and household emergencies) and livelihoods activities like agriculture and where SHGs function reasonably well, their reliance on moneylenders has reduced considerably. Some SHGs are indeed functioning well given the local constraints.

48. **Community infrastructure** was rated as highly relevant with all households reporting that they were satisfied with the constructed schemes. The emphasis has been on (i) improving linkages to markets, (ii) reducing drudgery, (iii) improving access to food supply and (iv) infrastructure to support economic activities. All common facilities are managed by the respective VDCs. Summary of these interventions is given in Tables-14 and 15 under Appendix-15

[16]Source: Annual Outcome Survey 2015; summary of indicators of AOSs carried out from 2010 to 2015 is given in Table-21 under Appendix-15.

[17]The MIS was to track the following indicators: # of SHGs participating & receiving equity assistance, # of members, male and female; # of SHGs receiving group loans, # loans to members and amount outstanding, purposes of loan to male, females, repayment rates, # of saving accounts and amount saved, financial sustainability, proportion of loans at risks, # of SHG managing accounts independently of NGOs etc

49. **Support for Policy Initiatives.** This intervention was highly relevant to the project area and its communities notwithstanding the fact that it was started much later. Over the years, OTELP facilitated provision of titles for house sites to 15 620 Tribal households on 178 ha of land and for farmland on 565 ha to 2 006 Tribal households. The OTELP has also facilitated allotment of individual land titles to 8 611 households and 82 community titles under FRA. At instance of IFAD supervision missions, the income limit for allocation of land titles under GoO schemes was raised to INR 40 000 from INR 24 000.

50. **Development Initiatives Fund (DIF).** DIF support is provided to (i) support to ultra-poor and vulnerable households, (ii) development of irrigation infrastructure, (iii) focussed livelihoods interventions and (iv) habitat improvement and sanitation. Prior to IFAD additional financing OTELP had promoted a wide range of activities under DIF for common benefits as well as for the benefit of vulnerable households. Activities supported included 53 backyard kitchen gardens, 50 nutrition gardens in schools, 32 drying yards, 63 bathing platforms, 3,966 grain storage bins, 53 small rice hullers, 141 irrigation pumps (treadle/diesel), 641 improved cook stoves, 1 022 kits of improved farm tools, skill-based economic activities for 298 vulnerable families, support to 32 differently-abled and low cost housing materials for 133 vulnerable families. All interventions under DIF were highly appreciated by the target groups and were very much relevant to the area, people and to the policies of the GoO.

C.2 Internal logic

51. Odisha is one of the poorest states in India and the position of tribal population, in both extent and intensity, is probably the worst in the entire country. Ecological degradation, erratic rainfall and a high risk of drought are the principle causes of food insecurity, increasing out-migration etc. Ecological imbalance had been seriously undermining the livelihood patterns and increasing vulnerability. A small land base, low agricultural productivity and low incomes had been having led to rising indebtedness, trapping the tribal into a complex web of exploitation. The design of the OTELP was based the problem analysis of the tribal households of the project area and thus the interventions proposed in the project design were appropriate to the conditions of the tribal people and the economic potential of the project area. A number of livelihood opportunities were designed to bring out changes in particular improving food security, enhancing household incomes, improving nutrition etc. Key assumptions contained in the logframe were appropriate to the theory of change as evidenced from a number of earlier impact assessment studies.

52. The OTELP design reflected the strategic thrusts for IFAD's operations in India as outlined in the country strategic opportunities paper (COSOP), which identified tribal communities as a priority target group. The project design also built on IFAD's experience in assisting the development of tribal areas in Odisha, Andhra Pradesh, the North-East, Jharkhand and Chattisgarh. The OTELP was jointly funded by IFAD, DFID and WFP in partnership with the Government of Odisha. The Programme was a long-term intervention in the southern tribal belt of Odisha, where poverty and deprivation were pervasive. The Programme thus fell under IFAD's flexible lending mechanism and was therefore designed for a ten-year implementation initially but in three phases of implementation. An initial inception phase was to be implemented for 12 to 18 months but in

view of various start-up delays and other administrative issues, it took longer than designed. The first MTR mission thus recommended a four year period for Phase-I, and another four year period for Phase-II and the final phase till the project completion. The implementation of OTELP has, thus taken nearly 13 years until its completion in March 2016.

C.3 Adequacy of design changes

53. There were no changes in the overall design and implementation modalities of OTELP. The project design had included eight districts but Sundargarh was excluded in the course of project negotiations[18] as it is at the northern end of the state, far away from the other seven districts that are contiguous and located at the southern end. This was an appropriate change as inclusion of Sundargarh would have presented logistic challenges for support and supervision by the PSU. During MTR II the allocations across sub-components under the Livelihood Component were modified by increasing the allocation for Productivity Enhancement sub-component and reducing it for Participatory Forest Management (PFM). This, too, was relevant as the original allocation for Productivity Enhancement was meagre, PFM activities could be financed through convergence with MGNREGA and off-take under PFM had also been very low. The equity seed capital to SHGs was increased at MTR II by reducing the allocation for Revolving Fund under RFS. This was done to increase the corpus available to SHGs to provide credit to their members in view of their limited access to institutional credit in an area with low overall penetration of mainstream financial services. The provision to procure specialised equipment to survey land on slopes between 10o to 30o was dropped as the State Government felt the expensive equipment would remain idle after project completion. Land survey was done using the services of LANDESA, an NGO specialising in surveys through CRPs. This alternative was effective.

54. The project duration was extended by a year in 2013 at the request of the GoO and as recommended by the Supervision Mission since implementation had picked up momentum, there were significant unspent funds in the project and project activities continued to be highly relevant. In view of the progress made by the project and to expand coverage of the vulnerable and poorest households IFAD approved Additional Finance assistance of USD 15 million (SDR 9.9 million) for a single expenditure category of Development Initiative Fund (DIF) in 2013 and an extension of one year. A final extension of a year was provided in 2014 with the final completion and loan closing dates as 31 March 2016 and 30 September 2016, respectively. The Additional finance assistance was most relevant as it enabled the project to expand coverage among the vulnerable and landless households by supporting proven activities for their benefit.

55. The project management and FNGO partners have been proactive in tuning into and leveraging new government policies and programmes for the benefit of project households. SHGs have been linked to the National Rural Livelihood Mission being implemented in the state by Odisha Livelihood Mission (OLM). The project has proactively facilitated the implementation of FRA, enacted in 2006, in project villages to enable ST households get legal title to land classified as government forest but traditionally cultivated by them. The project has also facilitated grant

[18]Para 5, Agreed Minutes of Negotiations, 19th April 2002.

of community titles under FRA to enable communities to manage forest lands within village boundaries for use by tem. Resources have also been leveraged under MGNREGA to take up land development and horticulture, National Agriculture Development Project (RKVY) for agriculture development, National Horticulture Mission (NHM) for horticulture development, SCA to TSP and SCA to SCP for livelihoods to ST and SC households, respectively and the Water and Sanitation programme to provide safe drinking water and toilets.

D. ASSESSMENT OF PROJECT EFFECTIVENESS

D.1 Physical target and output delivery

56. Appraisal targets: Appraisal targeted: (i) under the Capacity Building for management component, setting up of some 360 village development committees, establishment of 2,160 new SHGs and their training and exposure visits, imparting skills training to 1,080 pump-set operators, 1,080 master trainers, training 180 forestry groups and 5,400 livestock and aquaculture persons, training some 1,440 NGO personnel and 60 groups on village planning, SHG development, micro-planning and participatory approaches and also training of the staff of line agencies in land and water management, agriculture, forestry etc, under; (ii) Under the livelihood enhancement component, setting up of land and water management fund for undertaking watershed development works in 360 micro-watersheds including study tours for 1,080 master trainers, site inspectors, engineers etc remote sensing mapping of Gajapati district watersheds, setting up of participatory forest management fund and training materials for 180 forestry groups and their training, provision of 33 person-months of TA, information materials on NTFP processing and marketing and some 15 studies on action research etc, supply of 2,160 farm tools and 5,400 kitchen garden kits, 2.17 million tree seedlings, 10,024 crop demonstrations and 30 person-months of TA etc. Crop demonstrations were to be carried out at 2 per village during first 4 year period and one demo thereafter; under livestock and aquaculture sub-component[19], supply of 460 vaccination kits, 30 sterilisation equipment, supply of 60 bucks, 450 furniture sets, 450 poultry demonstrations and 36 person-month of TA, under rural financial services sub-component start up kits for 3,240 (both new and existing) SHGs and equity grant assistance were provided; (iii) both community infrastructure and DIF did not have any physical targets except the financial target of USD 9.75 million for both; (iv) Under the component 3, policy initiatives the targets were setting up of legal defence fund, land survey and settlement, land alienation and studies; the component 5 was the project management, and (iv) under the component 6 assistance to food handling was targeted for 5 year period with a total financial target of USD 0.85 million for distributing some 34,000 ton of rice equivalents.

57. **Overall performance:** At completion the overall implementation performance has been rated satisfactory taking into account the targets in the project's Logical Framework[20] and the overall achievement. Notwithstanding various setbacks the project has over the years implemented all the components in all project villages. Organisation of women into SHGs and a strong emphasis

[19]No facilities for fishery development were included in the original design

[20]The Logical Framework at completion in a revised format is presented in Appendix-4

on participatory planning and implementation through VDCs has enhanced the self-confidence and reduced the sense of isolation of the tribal households. Various land and water resource development activities, though modest in coverage, have demonstrated pathways towards more sustainable natural resource management practices. Similarly, though limited in scale and depth, improvements in farming systems, including agriculture, vegetable cultivation, horticulture and livestock-based enterprises have improved food security, reduced distress out-migration and enhanced incomes as observed during field visits. Progress under each component is presented in Appendix-8 and implementation phasing of key interventions is shown in Chart below.

Component 1: Capacity building for empowerment

Output 1: Capacity of poor tribal women and men to manage their own development[21]

58. Capacity building of communities: The partner NGOs organised 358 VDAs at the level of micro-watersheds, each with a VDC as the executive body (for planning and implementation), incorporated them under the Societies Registration Act 1860 with bank accounts; VDCs and UGs were capacitated through 6 036 training events; using PRA techniques with the facilitation of FNGOs Village Development and Livelihood Plans (VDLP) were prepared for all the micro-watershed; the VDCs were facilitated to receive project funds from ITDA and also with various Technical Departments at the District level for convergence; all accounts of village development associations (VDAs) were regularly audited by ITDA auditors.

Chart showing Implementation phasing of OTELP interventions (Actual)

Year/ OTELP Intervention	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
-Organising VDCs		x	x	x	x	x	x	x	x	x	x		
-Organising SHGs				x	x	x	x	x	x				
-SHGs received equity					x	x	x	x	x	x	x	x	
-Watershed treatment				x	x	x	x	x	x	x	x	x	
-Wadi plantations				x	x	x	x	x	x	x	x	x	x
-Agri demonstrations			x	x	x	x	x	x	x	x	x	x	x
-Rural financial services			x	x	x	x	x	x	x	x	x	x	x
-Poultry units									x	x	x	x	
-Goat units										x	x	x	x
-Fish ponds						x	x	x	x	x	x		
-Community infrastructure &DIF					x	x	x	x	x	x	x	x	x
-Drudgery reducing interventions							x	x	x	x	x		
-NGO partners			x	x	x	x	x	x	x	x	x	x	x
-Titles for homesteads, cultivation									x	x	x	x	

x denotes year of start and implementation

59. Beneficiary skills upgrading was included in capacity building programmes for SHGs, UGs and VDCs; participation of women in VDA meetings was facilitated; it was made mandatory to have at least one-third of the VDCs members as women. Tribal women and men were imparted a wide range of technical skills, such as survey and measurement of physical works, new farming techniques (e.g. line sowing and SRI), cultivation of new crops such as yams, use of trellis to cultivate vegetables, managing horticulture plantations, managing drip irrigation systems, constructing smokeless cook stoves, rearing of poultry, assembling solar lanterns, operating farm machinery, record keeping and maintenance of accounts. This has been possible through 25 975

[21]RIMS survey, AOS 2014-15, Project Progress Report and Project MIS; details are also presented in Table-4 of Appendix-15 showing number of micro-watersheds, villages and households covered by year

formal training and exposure events and regular guidance and handholding by FNGO and other project personnel

60. Capacity building of support agencies: The programme Organised 389 training events to the staff of NGOs and in addition 410 training events on community mobilisation and capacity building and 198 training events to the staff of line agencies. OTELP conducted 1,278 training programmes for community-based organisations (CBOs) and 41 for the partner NGOs. It also facilitated settings up of 430 forest protection committees (VSS), trained 333 VSS members, developed micro-plans and facilitated signing of MoUs with the FD and implementation of micro-plans, including planting of various tree species chosen by the VSS.

Component 2: Livelihood enhancement

Output 2: Access to and productivity of natural resources enhanced[22]

61. Village development plans: Using PRA techniques, FNGOs facilitated preparation of VDLPs for each of the 358 micro-watershed that included micro-watershed level treatment plans and livelihood enhancement activities.

62. Soil and water conservation works[23]: The project has implemented a large number of soil and water conservation works, such as mechanical filter strips on 2 956 ha, silt traps (trenches) on 6 543 ha, 80 715 gully control structures, 981 masonry drop structures, 378 retaining/guard walls, field/contour bunds on 8 254 ha, land levelling of 1 597 ha, 541 check dams, 172 diversion weirs, 666 lift irrigation systems, 366 diversion based irrigation systems, 488 field canals, 1 240 farm ponds, 1 299 irrigation wells, 6 465 km of avenue/bund plantations, 2 492 ha of mixed forestry plantations, 4 879 ha of horticultural plantations[24] (including Wadi model), etc. In all, the programme treated some 13,420 ha out of 34,536 ha of fallow land and made it available for cultivation to the farmers.

63. Crop demonstrations[25] and introduction of new crop varieties: OTELP collaborated with ICRISAT, CTCRI, MSSF, RPRC; took up farmers' participatory varietal selection; and introduced a wide variety of crops including legumes, tubers, millets, papaya, banana, etc. and techniques like SRI, IPM, etc. New paddy varieties such as Khandagiri, Lalat, Naveen, MTU1010, Surendra; Navjot variety of maize; sorghum varieties such as SPV 422/ICSV574, ICSV745, ICSV93046, NTJ 2; finger millet varieties such as Bhairabi, GPU-48, INDAF-9, GPU 26; pigeon pea varieties, such as Asha, Kamica, Laxmi; chick pea varieties such as JGK 1, JG 11, ICCC 37; back gram such as Ujala and PU 94-2; groundnut variety Devi (ICGV 91114); Niger variety GA-10; turmeric varieties Roma and Surama; ginger varieties Suprava and Suruchi; yam variety Orissa Elite; elephant foot yam variety Gajendra; sweet potato variety Kissan; brinjal variety Blue Star; monsoon potato variety Kufri, Chandramukhi; cauliflower varieties Pusa early, Pusa deepali and Synthetic 1; cabbage varieties Konark, Deepa and Improved Savitri; runner bean varieties Pottangi local and Udaygiri local, etc. Some 69 low-cost poly-houses were also installed with adequate

[22] Source: RIMS survey, AOS 2014-15, Project Progress Report and MIS.

[23] Table-7, Appendix-15 showing progress made under land and water management by year

[24] Tables 8 & 17, Appendix-15 show progress made under wadi plantations and also agro-forestry

[25] Table-9, Appendix-15 showing progress made under demonstrations

facilities for operations and training. Results of key crop demonstrations carried out in the OTELP area are summarised in Table-1 below[26] :

Table-1 Results of Crop demonstration carried out

Crop	Year of demonstration	Yields obtained from demonstration (kg/ha)plots	Yield from control plots (kg/ha)	Spread effect (% of farmers)
Turmeric	2013/14	12,200	10,683	18%
Tomato		9,750	8,352	12%
Tomato, Rabi		13,900	12,613	21%
Brinjal		13,500/11,700	12,375	12%
Potato, khariff		9,650/10,500	9,235	10%
Onion		14,240/15,200	13,180	12%
Radish		12,400	12,118	15%
Paddy	2014/15	2,840	2,793	7%
Finger millet		580/ 1,600	590/1,473	15%
Pulses		710	638	9%
Mustard		830	715	8%
Niger		1,250	1,186	12%

64. Apparently there were hardly any difference between the results obtained from the demo plots and the control plots from the adjoining farmers from adjoining villages. But at least there were some replications ranging between 7% and 21%, i.e. more replications in vegetables than cereals and oilseeds.

65. Participatory forest management: The OTELP promoted 430 Vana Suraksa Samities (VSS) to develop 16 340 ha under joint forest management; of whom 226 have entered into MoUs with the Forest Department, are functioning effectively and have taken up forest regeneration activities. The project facilitated grant of 82 titles for Community Management of Forests under Section 3(i) of the Forest Rights Act on 4 246 ha of forest land and 235 titles are in process.[27]

66. Rural financial services[28]: The project inducted and trained 537 community mobilisers and community service providers (CSPs) in various technologies to provide technical support to project beneficiaries in agriculture and other livelihood activities. The 358 VDC secretaries have also been trained in various farming technologies and 93 women owners of mother chick units have been trained in rearing of poultry birds. In collaboration with an NGO, the project has linked households rearing goats and broilers to cooperatives that provide technical support and market linkages. The project was able to link 2 368 SHGs to commercial banks to obtain loans worth INR 152.45 million. The groups also lent to their members INR 50.35 million from own savings.

67. The community infrastructure[29] development activities, as determined by VDAs through participatory planning, focused on basic services and women's drudgery reduction. The project constructed piped drinking water systems in 910 villages (out of 1 042), constructed crop drying platforms in 402 villages, multi-purpose community halls in 752 villages, 54 bathing platforms,

[26]Source: Publications from PSU, OTELP and field data collected by ITDAs and PSU

[27]Source: Supervision Report 2014.

[28]Table-2, Appendix-15 showing the status of SHGs organized under OTELP

[29]Tables-14, 15 and 16 showing community infrastructure facilities created, drudgery reducing interventions and processing units supported under OTELP

140 solar street lights, 223 platforms for hand pumps, 1 453 toilet bathroom units and 1 065 smokeless cook stoves.

68. Among promising enterprises activities identified were agro processing units, such as rice huller, oil expeller, grinding units, dal processing, pickle and jelly making, broom making, leaf plate making, etc.; artisan activities such as wooden/bamboo craft, black smithy, carpentry, pottery, etc.; village level shops; inter-village vending and musical troupes. Poultry and goat rearing[30], traditional livestock activities pursued by tribal households as income buffers were also identified for support and systematic development. Some 1 755 SHGs have taken up various enterprises and income generating activities using RFS loans. More than 49% of SHGs have accessed institutional credit to support members for off-farm enterprise development. Additionally, 1 971 poor and vulnerable households were assisted through DIF with the Additional Financing funds.

Output 3: Basic food entitlements to target household ensured[31]

69. The project provided SHGs with 7 932 grain storage bins to store grains for running grain banks. Using WFP Food the project distributed 17 941.2 ton of rice and 159.15 ton of pulses for the food for work programme. All eligible households access their full entitlements from the Public Distribution System and the Annapurna, Antyodaya, Mid-Day Meal and Supplementary Nutrition programmes of the Government. The project promoted nutrition gardens and encouraged cultivation of drumstick, papaya, orange-flesh yam and nutrition gardens, emphasizing their nutritional value

Output 4: Government-PRI-NGO coordination enhanced[32]

70. The project set up specialised teams of subject matter specialists, hired specifically for expertise in various sectoral activities of the project were recruited from the market and placed at the ITDAs. Staff remuneration was revised from time to time. The project selected 34 FNGOs in phases as implementation partners. They worked in clusters of 10 micro-watersheds each. Over the years, the project organised 981 training events for staff of ITDA and FNGOs, including joint training events, exposure visits to ICRISAT and WOTR, and training on gender. Concerned FNGO and ITDA staff have been attending meetings of the Palli Sabha in the context of convergence with MGNREGA and other government programmes requiring plans to be originated there. FNGO staff, and when necessary ITDA staff, attended all VDA meetings for finalising plans and yearly budgets and to review progress.

Component 3 Support to policy initiatives

Output 5: Laws and regulations implemented

71. Under this component, in all 6 036 training programmes were conducted for VDCs,

[30]Refer to Tables 10 & 11 for the progress made under poultry unit and goatery

[31]Source: Reports from NGOs and VDC MIS.

[32]Source: AOS 2014-15

VLSCs and UGs and these included modules on tribal rights, entitlements and the modalities of MGNREGA and FRA. The project facilitated a study of the implementation of FRA by the Tribal Research Institute, following which grant of individual and community titles under FRA was facilitated by the project, leading to settlement of 8 611 individual titles and 82 Titles for Community Management under FRA.

72. No survey equipment was procured and as a systematic result no survey was carried out covering dongar land below 30o slope for issuing titles to land. But based on the survey conducted by RDI titles for house sites have been provided to 15 620 households on 177.7 ha of land and for farmland on 565.2 ha to 2 006 households. In addition, the Project also facilitated allotment of land to 26 038 households, including 17 427 households under various GoO laws and programmes and 8 611 individual titles under FRA[33] .

73. The project supported a research study by an NGO Vasundhara on landlessness and land alienation among tribal people. The study report was widely publicised and has influenced the creation of various land allocation programmes for tribal people in the state. The project secured the consent of GoO to get the survey of landless and available land for distribution done by the NGO RDI, using CRPs, contrary to the established procedure where such surveys are done by the surveyors of the Land Revenue Department. The project successfully advocated increasing the income limit for allocation of land titles under GoO programmes from INR 24,000 to INR 40 000. Additional facilities under other ongoing programmes are listed in Table-22, Appendix-15.

Component 4 Programme management

Output 6: Effective Programme management systems

74. The project implementation was delayed by a year and PSU became fully operational a year from the date of loan effectiveness. ITDAs were to be restructured, strengthened and empowered and authorised as nodal agencies for the programme, and staffed and equipped by end of PY 6: This was delayed but achieved only by year PY12. Similarly with the initial delay in implementation, there was corresponding delay in setting up the M&E systems. The PSU and ITDAs are vested with adequate sanctioning powers and operational flexibility to ensure smooth flow of funds to the programme. The project commissioned various research and consultancy studies, including impact evaluation towards the end of Phase II. However, no such Impact Assessment study was carried out at completion.

75. **Risks aversion:** Many risks envisaged at design stage were conveniently addressed during implementation. These are described in Table-2 below.

[33]Source: Supervision Report 2014

Table-2 Identified risks and mitigation measures adopted	
Major risk identified at Appraisal	Mitigating measures adopted during implementation
1. Failure to strengthen the community institutions and devolve responsibility for management of development activities to the communities	This risk was effectively counteracted through intensive capacity-building of communities with backstopping by strengthened partner NGOs, on awareness-building and sensitisation of ITDA staff and on close monitoring of fund management by VDCs
2. Ambitious challenge to change the overall development ethos in the tribal areas and calling for radical change in the relationships within the development process and for overcoming a dependency attitude among the communities	This risk was mitigated by the inherent desire of the tribal communities to be self-reliant, supported by strong awareness-raising and capacity building interventions taking advantage of the experience of the NGOs in this respect
3. How to identify and attract the NGOs that are competent, able to develop a harmonious working relationship within a government programme and oriented towards building up community self-reliance rather than fostering another sort of dependency	This risk was effectively addressed by the PSU continuously stressing on the clear understanding of the roles and responsibilities of the NGOs and their requirement to develop an exit strategy as part of their operations
4. There were inherent risks in restructuring the ITDAs, launching these flagging institutions and restoring their image both individually and as a corporate body and their ability to attract competent risks and ITDAs ability to attract competent and motivated staff and radically change their operational culture.	This risk was addressed by open selection procedures and provisions for more attractive remuneration and greater autonomy, substantial logistic and office support in addition to additional staff support and training facilities
5. Strengthening of *palli sabhas* and allocation of substantial financial resources to them could accentuate conflict with the Gram Panchayat	This risk was mitigated by establishing linkages with PRI through ensuring participation of PRI representatives on the VDCs
6. The policy initiatives may not be enthusiastically pursued due to lack of political will.	Risks were addressed by selecting competent, specialised NGO, and involving the respective communities for deploying community resource persons (CRPs) for assisting in the processes and in line with the existing policies of the GoO and GOI

D.2 Project outcomes and impacts

Project outcomes

Outcome 1: Capacity of tribal women and men sustainably enhanced

76. Tribal women in project villages effectively participate in group activities as members of SHGs, have access to a safe savings mechanism, are able to borrow funds to meet contingent needs as well as for livelihood investments, have influence in community affairs and development activities through participation in village development institutions like VDA, VDC and the local government institutions, especially the Palli Sabha, are able to access credit from financial institutions and lobby for community infrastructure. Together, the women now manage a corpus of INR 235 million, including their savings and the funds provided under RFS. Over 80% women have reported improved access to credit. In the last elections to the local government bodies (Panchayats), out of the 252 elected representatives in programme areas, 101 (40%) were women and 25 women from SHGs were elected Sarpanch[34] (head of the Panchayat at the level of 3 to

[34]Source: IFAD Joint Supervision Report 2012.

6 villages). Women's drudgery has been reduced with access to safe drinking water within the village. Presence of toilets has enhanced women's personal hygiene and dignity. As the VDA is co-terminus with the Palli Sabha, the village level local government institution responsible for planning and implementation of development activities and selection of beneficiaries, women are able to influence development decisions in the village.

77. Tribal women and men have learnt a wide range of technical skills, such as survey and measurement of physical works, new farming techniques (e.g. line sowing and SRI), cultivation of new crops such as yams, use of trellis to cultivate vegetables, managing horticulture plantations, managing drip irrigation systems, constructing smokeless cook stoves, rearing of poultry, assembling solar lanterns, operating farm machinery, record keeping and maintenance of accounts. The 537 community service providers (CSPs) trained in various technologies are able to provide technical support to project beneficiaries in agriculture and other livelihood activities

Outcome 2: Access of tribal people to land and water resources improved, productivity of their resources enhanced and livelihood options expanded

78. Tribal people have 13 408 ha additional arable land, 20 047 ha additional irrigated land (7.68% increase in irrigated area) which enables multiple cropping and reduces risk of crop failure, and 2 954 ha of orchards. With land development work done by the project and distribution of land with the project's initiative, arable land available to tribal households increased from 56,752 ha at base line to 72,998 ha at completion.

Table-3 Land use changes

Land use potential	Baseline	At Completion	incremental
Land put to agriculture (ha) a/	56,438	68,846	13,408
Irrigated land, khariff (ha)	3,389	19,635	16,246
Irrigated land, Rabi (ha)	1,652	7,537	5,885
Irrigated, perennial crops (ha)	314	4,152	3,801
Landholding/household b/			
Titled land (ha/hh)	0.34	0.34	0
Non-titled land (ha/hh)	0.94	1.22	0.28

a/ other than areas put to fruit and plantation crops
b/ average size of operational landholding per household
Source: Data from the respective IDTA and aggregated by PSU, OTELP in 2016

79. Crop productivity increased with the introduction of quality seeds, seed replacement, use of composts, improved farming techniques such as line sowing, mixed (legumes with cereals) cropping, SRI and replacement of drought prone upland paddy with millets and drought tolerant paddy varieties. The mix of crops cultivated has expanded with the introduction of new tuber crops, such as elephant foot yam, cassava, orange flesh sweet potato, wet season potato crops, legumes such as pigeon pea and introduction of vegetable crops. Development of kitchen gardens has enhanced availability of vegetables for consumption. Adoption of vegetables, say by about 64% of households, as cash crops has led to enhanced farm incomes. Farm productivity has increased by 78% due to the use of quality seeds, improved farming techniques including dryland practices, crop diversification, access to irrigation and use of small farm machinery and tools introduced by the project[35].

[35]See Case Studies 1, 5 & 6, Appendix-14 for specific details

80. The overall livelihood basket of tribal people has expanded with the introduction of horticulture, improved livestock rearing, poultry, various agro-processing activities and non-farm enterprises such as vending, carpentry, masonry and 99% households reported to have two income sources. Village youth, in all 3 044, have found skill-based urban jobs or have taken up skill based self-employment[36].

Outcome 3: Support for policy initiatives implemented

81. Through the facilitation of the project, 15 620 landless households now have house sites, 2 006 landless households received farmland. Overall, to 26 038 households received land titles, including 8 611 individual titles under FRA.

82. Under the provision to confer community management rights, tribal communities in 82 villages have had their traditional right to manage village forests. Tribal communities in 430 villages are now able to participate in forest management activities with the forest department. This enables them to influence the selection of forest species to be planted, promoted and provides better access to NTFPs.

83. Through convergence with government agencies, tribal communities are now able to draw on extant government programmes and are able to leverage the use of MGNREGA to build productive assets for themselves[37].

Outcome 4: Efficient project management structure created

84. In a unique arrangement involving CBOs, NGOs, a special purpose statutory agency like the ITDA and the regular administrative machinery at the district and state levels, the project was able to function cohesively. Considerable resources were mobilised from mainline government programmes and policies in support of tribal and other people were leveraged to a considerable extent. The project also leveraged the support of regional, national and international research bodies and resource NGOs with specific domain expertise.

85. The longer implementation period of OTELP (13 years) seemed to have affected continuity as government personnel typically have short tenures while on secondment (three years is considered good practice) and staff in NGOs, too, cannot be expected to stay at one location/level for such a long period, especially in the remote area locations, where the project was implemented. In case of NGOs, low staff remuneration also led to frequent staff turnover as reported by the supervision missions.

Project impacts

86. **<u>Core impact indicators:</u>** The project purpose was to sustainably improve livelihoods and food security of 56 180 poor tribal households. The indicators set out to measure the achievement of the purpose were: (i) equitable increase of at least 50% in incomes of poor tribal households,

[36]See Case Study # 9, Appendix-14 for specific detail.

[37]See Case study # 8 describing a landless, unskilled, migrant worker turning into a vegetable farmer

(ii) at least 50% of participating below poverty line households show sustainable increase in assets and increased food security, (iii) decrease from 8% to 4% in levels of severe malnutrition by end of project amongst children (0-36) months in the programme villages, and (iv) participating households enjoy access to safe drinking water, basic sanitation and safe hygiene practice. Overall impact on rural poverty is rated as satisfactory.

87. Sources of information: As the PSU did not carry out an impact assessment study at completion, and the endline survey carried out by IFPRI did not provide the required data or information, validation of several of the project indicators was based on studies carried out earlier.

88. **Household incomes and assets:** Overall, the performance is rated as satisfactory. According to 2010-11 impact study, the average household income in nominal terms increased by 175%, from INR 15 926 to INR 43 970. According to AOS of 2015-16, nearly all households reported at least two sources of income, but this was similar to the control group, and 82% reported at least two sources compared to 78% for the control group; agriculture continues to be the main source of income for both.

89. The project has added significant physical assets both at individual level and community level. Key assets include, increase in cultivable land by 13 408 ha, irrigated area increased by 16 246 ha, horticulture plantations by 4 879 ha, 752 multi-purpose community halls, 910 drinking water systems, 10 765 toilet-bathroom units[38], 910 piped drinking water systems[39], 666 lift irrigation systems, 10 765 smokeless cook stoves, 402 crop drying yards, 1 299 open wells and 1 079 diversion weirs for DBI.

90. The project has led to significant increases in financial assets in project villages, including INR 136.15 million as savings of SHGs, INR 99 million as VDF and INR 91.15 million as revolving funds with SHGs, including funds provided by OLM through convergence.

91. **Human and social capital and empowerment:** Overall, performance is rated as satisfactory. The project has promoted 4 273 women's SHG, 339 SHG Federations, 20 Apex Federations of SHGs, 358 VDAs with VDCs, 1 007 VLSCs and 2 129 UGs. This has enhanced women's participation in village development activities and local governance. Over 16 700 women and men, including SHG leaders, office bearers of VDCs, leaders of UGs and community service providers, about 50% of them women, have been capacitated to provide community leadership and technical support for village development. The project has skilled 3 044 tribal youth in various vocational skills. In the course of the project tribal people, including women, have had exposure to government extension agencies and banks and are able to leverage resources from them.

92. **Food security:** According to AOS 2015-16, 100% households reported no food shortages compared to 99% in control villages. However, this needs to be seen in the context of the fact that Odisha is among the states with an effectively functioning PDS system. Diversification of crops with inclusion of pulses and vegetables and the introduction of kitchen gardens would have led to a more diverse food basket but these aspects have not been studied. Overall, performance is rated

[38]See Case Study # 3 show-casing how community action leads to better sanitation

[39]See Study # 10 show-casing how safe drinking water is crucial to health

as satisfactory.

93. **Agricultural productivity:** Agricultural productivity has reportedly increased by 78%. albeit from a very low base Production of cash crops has increased with 64% households adopting cash crops, mainly vegetables. Uptake of new practices and technologies in agriculture has been significant, with 77% farmers reporting use of technologies introduced by the project. The project area is most suitable for cultivation of off-season vegetables and horticulture and these have been introduced in the project area. Though the physical coverage is modest in area, 14% households now have horticulture plantation. Livestock rearing practices, especially rearing of goats have improved greatly. Overall, the performance is rated as moderately satisfactory.

94. **Institutions and policies:** At the grassroots level the project has brought about significant changes in the institutional landscape with the promotion and nurturing of SHGs, VDCs, etc. This is especially significant from the perspective of women as they are now able to participate in development and government activities at the village and Panchayat levels. According to AOS, nearly 63% of households accessing loans from SHGs and 52% were regular in repayment. Average amount borrowed has been increasing from INR 5,510 in 2010 to INR 9,130 in 2015[40]. Nearly 68% of these loans used in productive purposes such as IGAs, 21% for consumptions etc. It is significant to note that the amount borrowed for health care has been declining from 13% in 2010 to 2% in 2015. The project facilitated collaboration between government agencies and NGOs on a large scale. The state government has now scaled up this implementation modality in all the ITDA districts. Overall, the performance is rated as satisfactory.

95. **Access to markets:** The project has been promoting contract sales between traders and farmers for key commodities and this has led to improved access to far markets, with 59% according to AOS 2015-16 reporting enhanced access to markets[41]. Performance is rated as moderately satisfactory.

96. **Gender equity and women's empowerment:** The project has contributed significantly to women's empowerment via promotion of SHGs where women from over 90% project households participate. Over one-third VDC members are women. About one-fifth of youth trained in vocational skills are women. Specific attention was paid to provisioning of drinking water and smokeless cook stoves to reduce women's drudgery[42]. Overall performance is rated as satisfactory

97. **Natural resources and environment :**[43] The project has treated over 175 000 ha of land in an ecologically fragile hilly regions by constructing various engineering structures and vegetative measures to reduce soil erosion and rainwater run-off. While the intensity of the treatment and amendments has been quite modest given the limited budget, these have led to perceptible changes in the condition of natural resources. Check dams, filter strips, retaining walls, farm ponds, rain water harvesting structures, contour trenches, field bunds, land levelling, etc. have reduced soil erosion and increased in-situ rainwater conservation. Overall performance is rated as satisfactory.

[40]See Case Study # 2, Appendix-14 showing how SHG becomes a platform to help women realize their potential

[41]See Case Study # 7, Appendix-14 showing how peer groups help to learn faster in marketing hill broom grasses.

[42]See Case Study # 4, Appendix-14 on smokeless cook stove describing the experience of a woman

[43]Refer also to Appendix-11 for more details regarding environmental assessment.

98. **Climate change adaptation:** The project has introduced horticulture as a new land use which would aid climate change adaptation as trees are more climate resilient than crops. Upland farming systems to replace paddy with millets and legumes have been introduced and this is a positive step towards climate change adaptation as millets are more drought tolerant. The overall attempt at diversifying the crop portfolio, introduction of composts and organic farming systems would also aid climate change adaptability. Land and water resource development with a focus on reducing rainwater run-off, in-situ rainwater harvesting and reducing soil erosion and run-off is the most significant contributor to climate change adaptability. Overall performance is rated as satisfactory.

D.3 Targeting and outreach

99. **Targeting:** The OTELP followed an inclusive approach to targeting. While it was implemented in micro-watersheds where the population of tribal people was not less than 60%, all the households and villages in the selected micro-watersheds were included. Where possible, such as in allocating individual households assets/investments, the poorest and most vulnerable were given priority. Selection of beneficiaries was done through an open process in the VDA following PRA exercises conducted to create wealth ranking of households. Overall performance is rated as highly satisfactory.

100. The SHG activity ensured participation of women in the project with women from over 91% project households as members. Inclusion of all women in the VDAs, their representation in the VDC and as functionaries of the VDC was proactively encouraged. With the capacity building support the women received as SHG members, they increasingly were able to assert in the VDAs and VDCs. By choosing activities like provision of safe drinking water, toilets and smokeless cook stoves, the project addressed drudgery specifically faced by women.

101. Under the component for Policy Support, the project identified households who did not have land, including those who did not even have house sites and it facilitated allocation of government land to them for house sites and cultivation. Through collaboration with the Forest department, the project under FRA facilitated grant of title on land being cultivated by tribal people that had hitherto been wrongly classified as forest, thereby ensuring secure tenure to them.

102. The land and water development activities leave out the landless, except as wage earners in the initial stages when various land development activities are implemented. However, through the DIF and the top-up loan the project was able to provide support exclusively to the landless, vulnerable and ultra-poor households support such as for houses, shops, equipment, poultry units and goat sheds. The target population includes several Particularly Vulnerable Tribal Groups (PTGs) like Lanjia Saura, Kutia Kondha, Bonda, Bhumija and Paraja. The vocational training programme, though modest in coverage, focused on skilling youth for self-employment as well as modern sector jobs.

103. **Outreach to beneficiaries:** The programme covered 56,180 households directly and another 20,120 households indirectly. These included predominantly ST households (42,200),

who were poor and nearly 28% of were landless, followed by SC (8,070) and households of other communities (5,900). These households also included some 12,395 landless and 6,120 vulnerable and destitute households as shown in Table-4 below:

Table-4: Outreach to Beneficiaries a/

Category	ST	SC	Other	Total
Total households covered	42,200	8,070	5,900	56,180
-landless households	12,395	-	-	12,395
-households, BPL	29.610	5,525	4,260	39,475
-vulnerable households	6,120	-	-	6,120
-# of women benefited	38,460	7,180	5,636	51,276
-# of youth benefited	2,280	425	335	3,040

a/ Source, MIS and RIMS Data, PSU, OTELP

D.4 Innovation, replication and scaling up

104. **Participatory planning, implementation, monitoring and social auditing.** Participatory planning, implementation and social audit is a key OTELP innovation, contributing significantly to project effectiveness. A village development association (VDA) of all adults as members was promoted in each of the 358 micro-watersheds of approximately 500 ha, with a village development committee (VDC) of 15 to 17 members elected by it as the executive body to plan and implement project activities. The VDC had almost equal representation of women and men, drawn from each of the 2 to 4 revenue villages (Palli) in proportion to the number of households. The VDC prepared a Village Development and Livelihood Plan (VDLP) for the entire project period using PRA techniques with the facilitation and technical support of the FNGO. The plans were approved by the VDA in an open meeting and approved by the ITDA after ascertaining the technical feasibility and costs. The approved plans were the basis for preparing the Annual Plan and Budget for each micro-watershed, consolidated eventually into the PSU-level AWPB. The AWPB broken village-wise was implemented by a Village Level Sub-committee (VLSC) of the VDC under its overall supervision and technical guidance of the FNGO and ITA SMSs. Funds were advanced by the ITDA into the VDA bank account. Another sub-committee of the VDA called the Village Level Social Financial and Audit Sub-Committee (VLSFASC) conducted periodic social and financial audit of the activities, ensuring quality, timeliness and transparency in implementation. Besides transparent implementation, this approach has contributed to women's empowerment and given communities valuable experience in planning and implementation of government programmes, such as MGNREGA and certain tribal development projects mandated to follow a similar planning process through the Palli Sabha, the statutory village assembly in the State. Overall performance is rated as satisfactory.

105. **Village development funds:** The project has created a Village Development Fund, largely during initial phases when the land and water development activities were partly paid for in kind as food grains provided by WFP. Wages were given as cash and 3 kg of rice for every day worked after deducting INR 10 from the day's wages in lieu of the rice to build the VDF and the entire wage amount, including the money set aside into the VDF, charged to IFAD. The VDC manages the VDF, to be sued operation and maintenance of the physical infrastructure created through

the project and cumulatively amounts to INR 99 million. Some VDCs have used the VDF to provide wage advance against MGNREGS works to vulnerable households in the event of delays in MGNREGS payments.

106. **Women's savings and credit funds:** SHGs promoted as part of gender mainstreaming and women's empowerment strategy have, besides serving the intended purpose, stimulated women to save and build a corpus from which they can borrow to meet contingencies and for small productive investments. Besides building modest financial assets in the hands of women, this reduces the dependence on money lenders who hitherto controlled the tribal economy by lending small sums in times of crises at exorbitant rates, plunging the tribal people into perpetual debt traps. The 4 273 SHGs representing 51 276 women have mobilised INR 136.15 million as savings. Though women began with savings rates of INR 10 monthly each, the range across the project now is INR 50-100 monthly.

107. **Upland agro-horticulture following WADI[44] model.** The landscape in the programme area comprises of large tracts of uplands with cultivable wasteland most suitable for tree crops but often used by tribal people to cultivate marginal crops of niger (Guizotia abyssinica) and millets with low productivity. The uplands are prone to severe soil erosion during the heavy monsoon rains, with progressive degradation and decline in productivity. The project has promoted mango and cashew nut plantations on these lands under rain-fed conditions, protected against cattle grazing with a live fence, using an innovative technique of providing drip irrigation to the saplings in the early stages by burying a small earthen pitcher next to the sapling, which is filled with water every week. Where irrigation source is available nearby, regular, small scale drip irrigation using an overhead tank has also been provided. The project has created WADI farms over 2 954 ha benefiting 7 702 households. Farmers cultivate groundnut, cucurbits and vegetables along with the fruit trees planted with 5 m inter-plant spacing. WADI farmers have reported annual income of INR 5 000 to INR 6 000 from the sale vegetables. Modest income from sale of mangos begins from the fourth year and the trees are expected to reach their fruiting potential in seven to eight years. The model is now being replicated in OTELP Plus, using MGNREGA and SCA to TSP.

108. **SRI and line-sowing:** Paddy is the main cereal crop in the project area. Seed broadcasting and/or random transplanting of multiple seedlings to a hill is the common sowing technique with average yields of 400 to 500 kg/ha. The project has demonstrated SRI and line sowing techniques of paddy cultivation, using improved seed varieties and mechanical weeding with a simple hand operated rotary weeder. Yields have reportedly risen to 1 500 to 1 800 kg/ha. During 2015-16, the project supported SRI over 2 114 ha owned by 6 660 households. Reported by farmers as a key intervention, the techniques are now being adopted.

109. **Replacement of upland paddy with millets and tuber crops.** Broadcast paddy is cultivated widely in the project area. The crop often fails due to long breaks in the monsoon rains and yields even in good rainfall years are very low. The project has promoted rain-fed millet and tuber crops as a substitute to upland paddy as these are drought prone and climate change resilient,

[44]Wadi (meaning dryland orchard, especially around the homestead) is an integrated farming model developed by the Bharatiya Agro-Industries Foundation, a Pune based NGO, in the course of a tribal development programme in Gujarat. It combines agro-forestry, horticulture, fodder, etc. to help small and marginal farmers with 1 to 3 acres attain food and income security.

besides being nutrient rich. Sorghum, pearl millet and finger millet, fox tail millets, yellow-fleshed sweet potato and elephant foot yam have been promoted with seeds sourced from government extension sources and research centres.

110. **Micro-irrigation for vegetable cultivation:** Through IFAD's small grant project in collaboration with International Development Enterprise-India (IDE-I), micro-irrigation or drip irrigation techniques combining liquid organic fertilizer made from local composts were successfully demonstrated by the project with selected farmers. The system uses a small water tank perched on a platform about 10 ft high, connected to a network of drip lines to irrigate small vegetable patches. The project also trained community service providers to install the system and support vegetable cultivation. Over 29 000 households took up vegetable cultivation using this system.

111. **Youth as community service providers:** Towards a sustainable extension strategy, the project has trained local educated youth in various aspects of agriculture, livestock and social mobilisation. Known as Community Service Providers (CSPs), they are from the project villages and provide technical support to the communities in the identified areas of livelihoods such as agriculture and livestock, besides social mobilisation and supporting the communities in linking with banks and various offices of the government departments at the Block and District levels. The OTELP has promoted 508 CSPs under the VDCs and their works are monitored by the VDCs and are also paid by them. Field assessment showed that the CSPs are a vital link between tribal communities and government agencies, besides being sources of technical know-how and many have gained the confidence of the communities they serve. Continued refresher training of the CSPs and sustainable mechanism for their remuneration remain as challenges.

112. **Land rights to the landless:** The project collaborated with RDI/Landesa, an NGO specialising in land survey and settlement process[45]. Landesa trained Community Resource Persons (CRPs) to identify landless families, available land eligible for distribution and facilitate land allocation working closely with the revenue officials. The project identified 29 979 households (53% of project households) as landless, of which nearly 90% were ST. By March 2016, 26 038 households (about 87% of total landless) had been given land titles under different GoO laws and FRA. Among these 11% titles were for farm land and 89% for homestead land. All land titles are in the joint name of the husband and wife. Having land title enables households to get support under housing programmes of the government and gives a sense of dignity and confidence to women as land owners. The engagement of CRPs has been one of the key factors for the success of the initiatives.

113. **Scaling up and convergence:** Overall performance is rated as highly satisfactory. Government of Odisha has scaled-up the OTELP project model as "OTELP Plus" with its own budgetary resources for capacity building and programme management (shared with OTELP) and convergence with various Central and State Government programmes to provide resources for investment components. OTELP Plus covers 10 districts, 36 blocks, 1 653 villages and 640

[45]There is an intricate procedure for survey of land, identification of surplus land and its distribution, governed by the Land Revenue Code and various State Laws.

micro-watershed with treatable area of 345 937 ha to benefit 86 442 households (65 076 ST; 10 313 SC; 9 584 vulnerable households) of which 36,446 households are BPL. The planning process followed is the same as in OTELP. It has also included all OTELP villages for further development over the next 5 years. This is a tremendous achievement that illustrates the state ownership of the project approach. It also demonstrates that although OTELP has been successful in bringing development opportunities to the tribal population, more needs to be done to bridge the development gap between the tribal areas and the "mainstream" and additional investments in infrastructure, enterprise development and community capacity building are required over the medium term.

E. ASSESSMENT OF PROJECT EFFICIENCY

114. Project efficiency includes project financing, quality of project management, partners' performance, quality of supervision and implementation support and project internal rate of return. These aspects are described below. Overall the performance is rated as moderately satisfactory.

E.1 Project costs and financing

115. **Total investment costs:** Total investment and recurrent costs for OTELP was about USD 78.29 million equivalents. The OTELP was financed by Government of Odisha, IFAD, DFID and WFP with active participation by the participating beneficiaries. Investment and recurrent costs by financiers at Appraisal and actual expenditure are presented below in Table-5 below 78287

Table-5: Total OTELP Investment costs by financier (000 USD)

Financier	Amount at Appraisal a/	Actual disbursement on 31 March 2016 b/	% of disbursement
Govt of Odisha	9,567	20,780	217.2%
IFAD loan	19,996	24,642	123.1%
IFAD additional financing	15,000	9,217	61.4%
DFID grant c/	40,015	13,440	33.6%
WFP grant d/	12,300	5,580	45.4%
Beneficiaries	8,884	4,628	52.1%
Total	**105,779**	**78,287**	**74%**

a/ Source: IFAD Appraisal Report, August 2004
b/ Source: PSU Finance data
c/ DFID co-financed between 2003/04 and 2009/10 with a total amount of GBP 7.54 and later it withdrew from OTELP
d/ WFP co-financed between 2005/06 and 2011/12 with a total food assistance of xxx ton
e/ IFAD additional financing for last two fiscal years.
f/ GoO invested more funds in order to make up the sudden withdrawal of DFID;
g/ incremental disbursement was due to weak USD against SDR between 2009 and 2011; but in SDR terms full loan amount of SDR 16.05 million has been disbursed;
h/ Additional financing for DIF component only

116. **Disbursement by financier:** The performance is rated satisfactory. IFAD loan has been disbursed 123% as on 31 March 2013 and the WFP grant was disbursed 45% as on 31 March 2012. The WFP assistance included supply of 17,941 ton of rice, 159.15 ton of pulses equivalent to about USD 5.58 million. DFID grant was disbursed at 33.6% and it withdrew from OTELP in 2010. The funding gap created by DFID was made good by GoO by infusing an additional amount of INR 1,120 million. IFAD additional loan was disbursed at 61.4% and low performance was due to delay in starting the DIF component under additional financing and largely for want of budgetary approval for the OTELP budget for the fiscal 2015/16. The final withdrawal application amounting to INR 78.457 million has been submitted to CAA&A in last week of June 2016. When this is processed, the unjustified initial deposit will be partially recovered and approximately USD 83,489 will have to be refunded to IFAD and an amount of USD 5.932 million will have to be cancelled on closing.

117. **Disbursement by component:** The performance is rated satisfactory. As of 31 March 2016, except for the DIF component under additional financing, all other components completed with satisfactory disbursement rates. Disbursement by component is summarised in Table-6 below.

Table-6: Total OTELP Disbursement (000 USD)

Financier	Amount at Appraisal a/	Actual disbursement at 31 March 2016 b/	% of disbursement
-Capacity building	9,656	8,471	87.7%
-Livelihood enhancement	64,152	45,463	70.9%
-Support for policy initiatives	1,925	250	13.0%
-DIF	19,683	15,990	81.2%
-Project Management	9,509	7,704	81.0%
-Food handling including WFP	854	409	47.9%
Total	**105,779**	**78,287**	**74.0%**

a/ Source: IFAD Appraisal Report, August 2004
b/ Source: PSU Finance data.

118. **Coherence with AWPB:** The performance is moderately unsatisfactory. PSU sends the AWPB to IFAD after consolidating the annual ITDA plans. Achievement against AWPB for 2014-15 was 68%. Following low achievement during the first four years performance had picked up since 2007-08 but has declined again from 2013-14 as seen from Table below. Annual budget for 2015-16 was INR 741.45 million but this budget was not presented to the Legislature for approval and the PSU has presented a supplementary budget of INR 80.0 million and it was cleared by Dec 2015. As on 31 October 2015, the achievement was around 19%, including about 13.50% under Additional Financing. These are mostly the carried forward work relating to previous fiscal.

Table-7: AWPB Financial Achievements, (INR, million)

Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
AWPB	1.00	85.00	101.70	358.88	418.45	501.32	639.46	440.00	600.00	506.91	503.87	1100.06	403.89
Achievement	0.44	5.80	27.31	120.97	223.14	398.21	421.44	412.18	532.95	512.30	304.60	752.01	373.94
% achievement	43.80	6.82	26.85	33.71	53.32	79.43	65.90	93.68	88.82	101.60	60.43	68.36	92.58

119. **Withdrawal applications:** In all 85 withdrawal applications were submitted by the project to CAA&A and 55 withdrawal applications (IFAD Loan, DFID Grant and IFAD Additional Financing) were processed for disbursement/justification by IFAD. The final withdrawal claim for the period March 2016 is yet to be submitted to IFAD by CAA&A. In the initial years of the project, the project claimed funds transferred from PMU to ITDAs as expenditure. On the basis of audited financial statements, the excess disbursement for IFAD Loan and DFID Grant was adjusted in 2009-10. After the adjustment/justification, the project submitted WAs only on the basis of actual liquidated expenditure. The project, through Government of Odisha has to confirm to CAA&A/ IFAD that all eligible expenditures up to 31st March 2016 has been accounted for and no further WA will be submitted except the one in pipeline. This would enable IFAD to close the Loan Account.

120. **Financial management:** Financial management is moderately satisfactory. Finance staffs at PMU and ITDA levels are adequate though the capacities vary. The project follows modified cash basis at PSU/ITDA level and cash basis at the VDC level. Every year the annual work plan & budget was prepared by PSU and approved by PSC. The internal controls for approval of expenditure are satisfactory. The Accounting software is deployed at PSU and at ITDA level, but system synchronisation is not practiced. The consolidation of expenditure is being done manually. The project is not maintaining financier-wise share as the funds from the Government of Odisha was not disaggregated. The share of the financiers is calculated on the basis of disbursement rule and whatever is left over is charged to the Government share.

121. **VDC funds:** The project has adjusted the interest earned by the VDC on the grant received from ITDA towards the estimated cost of activities. The project has reported that a balance of INR 15.9 million is available as balances in the VDC accounts. All IFAD funds transferred were accounted for and the balances represent VDC own contribution and miscellaneous Government of Odisha receipts.

122. **Procurement:** The implementation performance of this activity is rated as moderately satisfactory. There is no position of Procurement Officer in the project. The PIM prepared in 2003 contains a section on procurement, which has not been updated after the revision of Loan Agreement, LTB revision and the IFAD Procurement Guidelines revision in 2011. Though the Communities were given the role of implementation partner, no Community Procurement Manual exists. The community procurement was generally direct contracting or through obtaining quotations. Procurement committee minutes, VDC resolutions, quotations were generally found to be in order. For OTELP, there was no IFAD prior review procurement primarily due to less than prior review threshold procurement for office equipments, non-consultancy services. Essential Documents are available for the competitive bidding undertaken, which are generally transparent. Contract management forms are not maintained though the project is supposed to maintain and submit to IFAD at quarterly intervals.

123. **Handing over of assets:** Performance is rated as satisfactory. Notable examples are piped drinking water systems in 685 villages, individual toilets and bathrooms for all households in 210 villages, community crop storage and drying facilities in 654 villages, 11 937 ha of fallow land

made arable, 19 475 ha of land brought under irrigation and 2 239 ha of horticulture plantations developed. The SHGs have INR 130.6 million as savings and have so far mobilised INR 123.6 million as credit. Vulnerable households have been provided low cost houses, 15 620 households have been provided house sites and 14 000 ha land has been distributed to 2,006 landless households. Individuals have received livelihoods assets such as poultry units, drip irrigation systems, goat rearing units, shops, workshops, tools and equipment, water lifting devices and tractors, tillers and food processing equipment have been provided as community assets.

124. **Village Development Funds:** Village Development Fund at VDC level was created by transferring the amount equivalent to WFP Food assistance. Following the first Main Review Mission, the collected funds were divided among the VLSCs proportionate to their contributions. These funds were maintained in separate bank accounts. Programme has issued an operational guideline for use of VDF in Phase I programme areas and this guideline was also applicable to other areas as well. The VDF are to be used in a revolving mode with a nominal rate of interest. The VDF was to be used for repair and maintenance of works by the village communities and later availing the fund in the form of loans and the maximum loan being a 70% of the estimated cost. According to the guideline, the VDF was not to be used for creating any new asset. The PSU has reported that an amount of INR 99 million is available under VDF.

125. **Auditing:** The implementation performance of this activity is rated as Satisfactory. The statutory audit of the accounts of the project for the year ended 31 March, 2016 has been carried out by a firm of Chartered Accountants. The audit report with PFS is yet to be submitted to IFAD. Office of C&AG has undertaken a General & Social Sector Audit covering OTELP among other Departments/Schemes for the year ending 31st March 2014. This audit covered PSU, 2 ITDAs and 8 VDCs. Neither the observations of the C&AG audit nor the para-wise responses of the project were communicated to IFAD nor reported to any of the Supervision Missions. There is no information available with the PSU, whether the responses of the project have been accepted by the Office of C&AG. Currently the Office of C&AG is also conducting a compliance audit for the period between 2011-12 and 2015-16. The observations of the current audit should be communicated to IFAD when available.

126. **Compliance of Loan Covenants:** The implementation performance of this activity is rated as Satisfactory. The Programme has generally complied with the Programme Loan Covenants.

E.2 Quality of project management

127. **Project management.** The Ministry of Tribal Affairs, GoI and the ST & SC Development Department at the state level are the nodal agencies for OTELP. At state level, OTELP has three-tier management structure: the 358 VDCs established at each micro-watershed level for all 358 micro-watershed as the main implementing agencies at the grassroots level, the seven ITDAs at district level and the programme support unit within ST & SC DD at the state level. Each of the 30 Block was assigned to a facilitating NGO charged with providing support to the SHGs and VDCs for capacity-building, micro-planning and supervision in each Block. The programme provided for flexibility in the provision of technical support services to the communities allowing for the NGOs to recruit their own technical staff or enter into partnership with line departments or other

service providers or assigning implementation responsibilities to other government organisation or ITDAs. A VDC was established at each micro-watershed level for all 358 micro-watershed and are based at Palli sabha level.

128. Planning and implementation of project activities in villages was done by VDCs with guidance and handholding support from FNGOs. The ITDAs and the PSU under the GoO ST&SC Development Department provided technical support and monitored project activities. The State Level Project Management Committee (SLPMC) headed by the Principal Secretary ST&SC Development Department monitored the operations of OTELP. It has been meeting regularly and it had since met twice during 2013-14 as well as in 2014-15. A Project Steering Committee (PSC) chaired by the Chief Secretary, GoO provided policy support and reviews. Although this had not been meeting as required, all IFAD missions used to have their wrap up meeting with the chief secretary in the chair, which used to take note of status of the programme and provided appropriate directions in such meetings. There are subject matter specialists (SMS) at the PSU as well as the ITDAs. While the ITDAs reported to have been working under severe staff shortage, the PSU has two vacancies of SMS and one of an assistant.

129. The 358 micro-watersheds taken up under the project have been divided into 34 clusters, each treated as a project unit. Of these, 29 are presently being looked after by FNGOs while five are directly under the charge of the concerned ITDA.

130. Staff turnover and ability to attract qualified staff hampered the performance of FNGOs and it reflected in variable performance across FNGOs. As recommended by IFAD review missions, competitive remuneration should have been offered to FNGOs so that they could have deployed quality staff. Simultaneously, regular reviews and interaction with FNGOs and peer reviews among them would have been very effective. IFAD missions had recommended a review of the remuneration policy of OTELP at the PSU and ITDA levels for contractual staff. A review was carried out but the recommendations have not been implemented. These have substantially affected the overall performance of OTELP and maintenance of quality data. Overall performance is rated satisfactory.

131. **Monitoring and evaluation and MIS.** The performance is rated as moderately satisfactory. Key elements of project M&E practices were monthly, quarterly, half-yearly and annual reporting of progress, conducting village level social & financial audits, carrying out annual outcome surveys, preparing annual progress reports, maintenance of records at various level (PSU, ITDAs and VDCs), conducting coordination meeting on regular basis, documentation and publication of best practices & learning, voucher-based monitoring system, etc.

132. The IFAD missions have been reviewing the relevant M&E data and reports both from the PSU and the ITDAs during their field visits. While the OTELP has reasonable quality of output data for the project interventions, impact and outcome data were far from satisfactory and needed considerable fine-tuning. The last supervision mission in November 2015 advised the PSU that an impact assessment study should be carried out and results made available to the PCR mission due in June in the following year. But no such study was carried out due to absence of budget from the Government for this purpose nor an updated RIMS tables made available. Instead, IFAD

requested IFPRI, to implement the endline survey. The results of this survey were unfortunately not conclusive for use by the mission. The PCR mission was therefore severely constrained by lack of such reports in spite the fact that the OTELP has been rated as one of the successful IFAD-funded projects in India. Overall performance is moderately satisfactory.

E.3 Partners' performance

133. IFAD. During the course of project implementation, timely support and guidance provided by IFAD, especially after MTR-I were valuable. Annual Joint Review Missions, two Mid Term Review Missions, Financial Review Missions, Implementation Support Missions were of much assistance to the PSU and the other implementation parties in the field such as ITDAs. During the two MTR missions helped the PSU in reviewing the project design and making adjustments in the context of implementation capacities of partner NGOs and ITDAs and revising the design accordingly. Besides regular and periodic reviews of AWP&B and its comments on them was much helpful to the PSU and in carrying out the project procurement effectively. IFAD had been providing strong support to the PSU by providing its support in enhancing the knowledge of PSU. IFAD's support in conducting periodic staff orientation training in project management, monitoring and evaluation, guidance in developing materials for knowledge management were of high value to the project. Overall performance is rated satisfactory.

134. UNOPS: Project supervision was initially handled by UNOPS, the Co-operating institutions for the project. It had fielded three supervision missions between 2003/04 and 2006/07 and later from 2008 onwards, IFAD had taken over the direct supervision. Inputs and support provided by the UNOPS missions were although appreciated but its duration, coverage and in-depth analysis of problems and issues were limited. Its mission compositions were also highly limited and were not thematic (see Appendix-xxx showing the mission compositions).

135. Co-financiers: United Nations World Food Programme (WFP) and Department for International Development of United Kingdom (DFID) were two active co-financiers for the OTELP. Representatives of these two institutions were also taking part in the IFAD and UNOPS implementation supervision missions. WFP provided only food assistance amounting to 17,941.23 ton of rice and 159.15 ton of pulses between 2006 and 2011. Distribution and supply of food was the responsibility of the Government of Odisha. WFP food assistance was of great value to OTELP as it enabled in carrying a number of interventions where labour were needed. Supplies from WFP were timely. DFID provided the financing support to a tune of GBP 7.54 million between 18th March 2005 and 18th March 2010. DFID funds were routed through IFAD and DFID withdrew from the project due to change in its funding strategy. Their representatives have also taken part in supervision missions and provided their inputs to the government. Overall performance of WFP is rated as moderately satisfactory and that of DFID as unsatisfactory.

136. The ST & SC Development Department, Government of Odisha, had shouldered the overall responsibility for flow of funds, financial monitoring, including counterpart fund support. It had also provided additional funds to OTELP when DFID withdrew from the project suddenly. Funds flows from the government were timely and adequate. It also provided administrative support in accelerating the project implementation by asking the ITDAs to provide timely support

in project implementation and personnel. The Programme Steering Committee under the Chief Secretary, GoO had been providing guidance to PSU. The GoO has included all OTELP villages for coverage under OTELP Plus. This would deepen the impact and enhance sustainability as the OTELP villages will continue get handholding support from FNGOs and additional development finances through convergence with various ongoing government programmes.

137. The State level Programme Management Committee (SLPMC) under the ST&SC DD provided necessary policy support and directives to OTELP. Such guidance was more proactive towards the programme implementation and enabled smooth implementation of the programme. The PSU delivered its responsibilities effectively as envisaged by the programme design despite various limitations in the beginning. The PSU was responsible for the day-to-day management and delivered its outputs in accordance with the annual work plan and budget (AWPB). But in the final year of the programme, the PSU failed to present the AWPB to the GoO for approval and that seriously affecting the implementation of programme targets under DIF additional financing. Performance is rated satisfactory

138. The ITDAs and DPMCs undertook implementation and operational aspects of the project in the respective districts with the support of partner NGOs. Inadequate capacity and expertise within these ITDA project teams demanded more manpower, repeated training and skills upgrading in order to ensure that these teams were fully aligned with the programme's operational objectives. These adjustments had taken more time than envisaged resulting in the implementation delays in the formative stage. Currently all ITDAs are adequately staffed but with the OTELP closing in March 2016, the staff salaries are being provided by GoO so as to enable them to continue with the implementation of OTELP Plus operations.

139. Partner NGOs were the focal strength at the grass-roots. They acted as a bridge between the target groups and the line agencies and ITDAs. The project also engaged six resource NGOs for marketing support, identification of landless, support to the SHG activity during phase I, support for Pico-Hydro, drip irrigation and support for poultry and goat rearing activities. Their services were of great help to the tribal and also to the IDTA project implementation teams. Overall their performance was satisfactory but there were a few cases of poor performance. Training to partner NGOs are the key to success of the programme. Partner NGOs were not engaged strategically in the sense that there were (i) no continuity of their services, (ii) inadequate logistic and support facilities and (iii) no motivational elements in their contracts. These resulted in considerable implementation delays in spite the fact that the supervision missions have been flagging these issues. Overall performance is rated as satisfactory.

140. Grass-roots level institutions: The VDCs have developed a good partnership with the District and Block level line Departments whereby the convergence of the programme with other ongoing programme has been possible. The OTELP promoted VDCs, SHG federations, Apex federations; a number of User groups (UG), etc. have been acting as facilitators in one way or other. However their overall performance has been moderately satisfactory. As part of social capital, OTELP has promoted a number of village level volunteers, organised several user groups for the operations and maintenances of facilities created such water supply, community infrastructure, NRM facilities,

community forestry management etc and imparted capacity building training and empowered them to take over these activities after withdrawal of the programme. Overall performance is rated as satisfactory.

E.4 Quality of supervision and implementation support

141. The programme had only one supervision mission and one follow-up mission during the first Phase, partly because of the delayed start. Supervision during the first five years (till 2007) was carried out by UNOPS and direct IFAD Supervision began only from 2008. Supervision missions were fielded every year from after the first Mid-term review in 2006. In all there were 13 supervision missions, including three under the aegis of UNOPS. Of these missions, two were Mid-term review missions. IFAD also fielded two Implementation Support Missions in 2016 and two Financial Management missions, one in 2012 and another in 2013. (See Appendix-5 for details)

142. The missions typically split in two teams and spent six to seven days visiting 15 to 20 project villages where participants from 6 to 7 neighbouring villages would also come, interacted with project beneficiaries, FNGO staff, staff from ITDAs and line departments in the districts, the SPMU staff, made recommendations for improvements in implementation through a consultative process with project stakeholders and shared their findings at the highest administrative levels with the borrower.

143. Missions typically consisted of professionals with domain knowledge of natural resource management, community and tribal development, SHGs and rural finance, gender, livelihood promotion, IFAD project financing procedures and project management. Missions always had at least one woman member. Overall performance is rated as satisfactory.

E.5 Project internal rate of return

144. The Programme commenced implementation in 2003/04 and completed it in March 2016. The implementation was carried out in three Phases and covered a total area of 175 370 ha scattered in 358 micro-watersheds benefitting 56 180 households comprising 42 200 ST, 8 070 SC and 5 910 from other communities. These also included 12 400 landless households. With the implementation of OTELP, there have been significant changes in land uses and production patterns: the gross cropped area increased from 52 100 ha at baseline to about 77 470 ha at project completion, irrigated area (potential) increased from 3 390 ha to 19 635 ha, area under plantation and fruit crops increased from 1 290 ha to 6 020 ha and the fallow land decreased from 13 040 ha to 1 790 ha. The economic and financial analysis (EFA) examines these and other such significant changes, results and impact that have taken place during OTELP implementation. The EFA is being attempted without any “Impact Assessment Study” at Completion and there is, therefore room for errors in estimates and judgement.

145. Approach and methodology: Cost-benefit analysis method was used for carrying out the economic and financial analysis of OTELP at completion. All project investment costs

(incremental) have been adjusted to current prices using the price inflation factor and incremental benefits were estimated based on actual physical outputs and likely chances of building up of incremental benefits during the reminder of the project life period. Prices were collected for all inputs and outputs as prevailing at nearby markets and adjusted to farm-gate prices using standard conversion factor. Data relating to crop productivity were obtained from case studies carried out by OTELP and other available documents such as annual reports, annual outcome surveys etc and also from the respective ITDA. Data base compiled by the PSU has been used as basic sources of reference for all activities. Using available data, both primary and secondary, type production models for agriculture, horticulture, livestock and fisheries, IGA, enterprises etc were developed, from these models to household models and finally aggregated subproject models with the of use of FARMOD.

146. **Household or area models:** Using budgets from a range of crops and income generating activities, 5 farm models and 4 activity models were prepared to broadly illustrate the OTELP's "expected impacts" on the incomes, and use of household labour adopting and/or adapting both on-farm and non-farm. These are summarised below.

(i) Dry-land crops model: This model is developed based on an area of 1.04 ha per household, primarily with rain-fed crops such as paddy (0.24 ha), millets (0.17ha), maize (0.07 ha), millet (0.22ha), oilseeds (0.07 ha), root-crops (0.034 ha) and pulses (0.11 ha) such as black gram, cow pea, sesame, horse gram, etc. are inter-cropped. These crops are already being cultivated but productivity enhancements are achieved through timely sowing, line-sowing, weeding and use of quality seeds. Average cropping intensity increased from 101% at baseline to 118% at completion.

(ii) Irrigated farm model: Irrigation facilities created an incremental potential area of 19 635 ha. Average area under irrigation is increased from 0.085 ha to 0.5 ha/household during the main crop season. Major crops included paddy (0.43 ha) and maize (0.19 ha), millets (0.02 ha), onion (0.05 ha) pulses (0.17 ha), vegetables (0.27 ha) and spices (0.013 ha), root crops (0.11 ha), oilseeds (0.1 ha) etc. Vegetables crops included cucumber, okra, tomato, onion etc. Spices crop included turmeric and ginger. Cropping intensity increases from 123% at baseline to 265% at Completion.

(iii) Wadi farm model: Each wadi horticulture model has a diverse variety of fruit crops such as mango (0.20 ha) and cashew (0.20 ha). A household model covers an area of 0.4 ha and crop distribution has been assumed based on field conditions. Each mango wadi plot has 30 plants and the cashew 14 plants. These were raised under rain-fed conditions except applying life-saving watering in the initial stages of growth.

(iv) Backyard poultry model: Each model has a 10 bird-unit with facilities for shelter, equipment, feed supply at 50 gm per bird, medicine and technical support. Each beneficiary takes at least 5 batches during a year with a mortality rate at 5%. In all 3 630 households were covered under the programme.

(v) Goat-keeping model: This is a 5 does and one buck model. This includes construction

of goat shed, supply of does and buck, equipment and providing insurance coverage, feed, etc. to the participating household. See Annex-26. In all 5 820 households participated.

(vi) Fish pond activity model: Average size of a fish pond is 1 500 m2 and it is owned and operated by a group, preferably the landless. According to MIS data, each year the group stocked 1 000 fingerlings and harvested 120 kg of fish for selling at INR 120/kg. A fingerling grows to weights ranging between 150 and 170 gm in ten month period. Common and China carps are the main species. A group spends about INR 4 500 for harvesting. From the data, it appears that fish ponds are not properly managed as seen from the production levels. In all 547 fish ponds are operated by these groups and the number of households involved could be around 6 560.

(vii) IGA and enterprises model: Very few households have taken up these activities. In all 210 households participated in this model. Setting up of 148 grocery shops and installation of 65 processing units for milling paddy and flour and processing of tamarind and cashew are key interventions. Support to NTFP was also included.

(viii) Drudgery reducing benefits model: This model is built on notional benefits; and assumes that the participating households benefit from the drudgery reducing interventions of OTELP such as (i) saving of fuel wood at 5 kg per day per household through the use of smokeless wood-stoves, (ii) 36 labour-days saved per household per year due to closeness to domestic water supply, labour saved in hauling and milling, reduced time-spent in fuel-wood collection, etc. and a labour-day notionally valued at INR 200 per day and (iii) increased availability of fuel-wood (at 25 bundles per year per household valued at INR 1 000) due to conservation measures adopted at the respective fuel-wood reserves.

147. The interventions such as backyard poultry, goat-farming, IGA, etc. were introduced in the final Phase and these needed more support and handholding for improving their efficiencies. Financial efficiency measures of household and area models are presented in Table-8 below and budget details in Appendix-10.

Table-8: Financial Efficiency measures of household or area models

Farm/ Activity Model	Gross Income (INR)	Input Cost (INR)	Labour (INR)	BCR (ratio)	FIRR (%)	NPV at 12% (INR)
Dryland agriculture	65 146	13 109	30 540	1.77	-	147 550
Irrigated crops	198 653	20 479	54 445	2.73	-	942 500
Wadi plantation	92 400	1606	4 840	6.03	50	254 640
Backyard poultry	14 400	5 500	10 000	0.5	-	-50 650
Goat-keeping	72 000	4 972	36 000	0.76	4	80 043
Fish pond	14 400	4 150	4 800	1.0	25	4 463
IGA	17 000	3 500	9 000	0.54	-	-41 877
Micro-enterprises	125 000	90 000	-	-	-	899 330
Processing units	51 730	32 550	-	-	-	371 425
Drudgery reducing	4 705	-	-	-	-	35 143

148. Subproject models: Area, farm and activity models were grouped and aggregated into sub-project models in order to estimate the overall project performance indicators. These models are briefly described below and their respective budgets in Appendix-10.

(i) Dry-land agriculture subproject: This subproject model includes 43 780 dryland crop development households participating in phased manner over a 9 year period starting in PY 5 and ending in PY 13. Productivity increases are achieved through enhanced soil moisture regime and adoption of improved agronomic practices. Financial and economic budgets of this model are presented in Annex-8 and 9.

(ii) Irrigated agriculture subproject: This subproject model includes some 26 720 households and all of these are also dryland households. This subproject was created to get the aggregate of irrigation impact in the programme area. These households have been participating right from fiscal 2007/08 and until the project completion. Aggregate of Financial and economic budgets of this model are presented in Annex-10 and 11.

(iii) Horticulture wadi subproject: This subproject covers some 7 700 households starting from the year 2006/07 and has been building evenly since then, except in year 2013/14 when more than 1 800 households were added. This model reaches full development stage in year 7 or 8 although they start yielding in year 4. This model covered some 3 390 ha involving 7 700 households and used existing podu land or fallow land for planting. Aggregate of financial and economic budgets of this model are presented in Annex-12 and 13.

(iv) Livestock subproject: This model covers some 9 450 households comprising 3 630 backyard poultry households and 5 820 goat sheds and goat keeping households. Support to backyard poultry activity commenced in year 2011/12 and ended in 2014/15. The goat keeping activity commenced in year 2012/13 and continued till project completion. The landless households were particularly targeted.

(v) Fish ponds subproject: Support to this activity started in 2008/09 and continued till 2013/14 and in all 547 ponds were constructed and handed over to the groups, mostly the women and the landless. From MIS data it appears that this activity was not supported effectively with required inputs and technical support. As a result, the overall productivity has been very low. It may be assumed that over 6 500 households, including the landless were involved in this activity.

(vi) IGA and enterprises subprojects: About 210 households are covered over the project implementation period as this activity started only in year 2013/14. Enterprises included setting up of 148 grocery shops for individual households, 65 processing units for milling paddy, flour, tamarind and cashew processing. Some households also involved in the collection of NTFP product and making of brooms from hill grasses. This activity was targeted at the landless households.

(vii) Drudgery reduction benefits subproject: Improvement of rural water supply, supply of smokeless wood-stoves, milling and hauling facilities etc reduce overall drudgery of the tribal and other beneficiaries, in particular their women. In all 50 217 households were covered. This is a model based on notional benefits.

149. Results of analysis of these seven subprojects in terms of household incomes, production costs, labour and input etc are summarised in Table 5 below and details in Annex-8 to 21. From the results, it is evident that household labour forms a substantial part of gross incomes and makes good the negative financial efficiency measures in the case of livestock, fish ponds and IGA subprojects as seen from Table-9 below.

Table-9: Summary Results of Subproject (Financial) Models: INR per household 1/

Subproject	Gross income (INR)	Purchased inputs (INR)	Labour (INR)	Net income (INR)	Adoption rate assumed in EFA %
Dryland crops subproject	65 145	13 110	30 540	21 495	80%
Irrigated crops subproject	198 650	20 450	54 440	123 730	60%
Wadi horticulture subproject	92 400	1 600	4 840	85 960	70%
Livestock subproject	49 890	5 180	26 020	18 690	70%
Fish ponds subproject	1 200	345	745	110	70%
IGA & enterprises subproject	116 210	82 330	-	33 880	70%

1/ At full development stage and assuming all labour requirements met by households themselves.

150. Project performance indicators: Cost-benefit analysis yields an overall IRR of 21%. The estimated NPV for a 10% discount rate is INR 3,428 million and the BCR of 1.37. A positive NPV under the current Opportunity Cost of Capital (OCC) of 10% and even at a 25% discounted rate indicates that the project investments were robust. Details are presented in Appendix-10 and summarised in Table-10 below.

Table-10: Sensitivity analysis

Scenario	Base Case	Cost Increases by 20%	Cost Increases by 25%	Benefits down by 20%	Benefits down by 25%
IRR	21%	15%	14%	14%	11%
NPV (million INR)	3,428	1593	1,135	908	278
BCR	1.37	1.14	1.10	1.10	1.03

151. If benefits delayed by two years (in effect, if the project's production activities such as backyard poultry, pond fishery, IGAs take longer to become fully developed or established) then the IRR declines to 15%. Under extreme scenario of costs increase by 25% and benefits decline by 25% over the base-case, an IRR of 2% is obtained.

152. The switching value analysis indicates that the project is capable of sustaining a 27% decline in overall benefits or 37% increases in costs. Likewise, if the development of vegetables as cash crops, spices and wadi plantations were not taken up, the overall IRR declines to a just 4%. Similarly if irrigation potential falls below 50%, the IRR declined to 10%. These signify a delicate balance in crop production patterns that strongly impact on the project performance indicators.

153. Thus, the key drivers of the economy of the project area appear to be (i) vegetable production

for sale with reasonable market access, (ii) irrigated agriculture and sale of surplus production, and (iii) production from wadi plantations. Other sectors like goat-keeping, pond fishery and IGA enterprises need substantial handholding support for improving their efficiency.

154. **Comparison of indicators:** A comparison of project performance indicators estimated at Appraisal and at Completion has been attempted. These presented in Table-11 below:

Table-11 Comparison of Project Performance Indicators

Project performance indicators	At Project Appraisal	At Project Completion
IRR	14%	21%
NPV million INR at 10% discount rate	229	3 428
BCR (ratio) discounted at 10%	1.17	1.37
Sensitivity analysis:		
Costs increased by 10%	12%	18%
Benefits declined by 10%	12%	18%
Both costs and benefits change by 10%		14%
Two year delay	11%	15%

155. **Benefits:** Immediate benefits from the project are increased productivity-through the introduction of better management practices, improved farming practices. This response is expressed as increased household incomes. On an average, a household's production benefits will increase from 532 kg/household to over 1 283 kg of cereals, pulses and oilseeds. In addition, average household production also includes fruits, vegetables, tubers and spices. Incomes, excluding the value of family labour, increase from INR 1 938 to INR 36 990 at project completion. This would increase to INR 50 530 at full development. In qualitative terms, minimised soil erosion, reduced runoff and increased infiltration, and enhancement of organic contents of the soil are some of the benefits of the OTELP interventions, which have not been quantified. There are substantial increases on demand on family labour from the existing level of 53 person-days per household to some 190 person-days. Incremental labour needs are particularly for agronomic practices and harvesting. The households would be spending more person-days on-farm than on NTFPs.

Table-12: Household food production & Incomes at full development stage

	Food production: Kg / hh a/		Incomes/hh b/	
Households	Baseline	At Completion	Baseline	At completion
All households	532	1 283	1 938	36 990

a/ includes cereals, pulses and oilseeds only and excludes tuber, fruits, vegetables, spices etc.
b/ Incomes exclude household labour-days; at full development it would be INR 50 530 per household
These incomes are directly attributed to OTELP interventions and do not include "other incomes"

F. ASSESSMENT OF SUSTAINABILITY

156. *Overall performance is rated as satisfactory.*

157. **Political sustainability:** Political sustainability of the interventions under OTELP is reflected in the commitment of the Government of Odisha and also that of Government of India through their ongoing programmes especially targeted to tribal population. In addition various community-based organisations such as VDCs, SHGs, UGs etc have taken over the operations and maintenance of the facilities created under OTELP. The ITDAs by virtue of their clearly defined functions will continue to provide support to the tribal communities and will also continue with

their regular and other ongoing programmes. In spite of these arrangements and commitment by these CBOs, there exists gaps in financial support for taking further these results to next levels and in this respect it is expected of the OLM to play its role. The GoO has up-scaled the processes followed in OTELP under "OTELP Plus" covering 10 districts, 36 Blocks, 1 653 villages and 640 micro-watershed to benefit 86 442 households (65 076 ST; 10 313 SC; 9 584 vulnerable households).

158. **Institutional sustainability:** Experience shows that VDAs, VDCs tend to function as long as there are substantial implementation responsibilities and resources. SHGs of women are most likely to sustain, even under conditions where little outside support is available. The degree of dysfunction varies by location. About 50% of all SHGs that had been previously graded as A can be reasonably expected to remain functional. The SHG federations are still less than 3 years old in most locations, and also deal with lending to member SHGs. Adequate systems for monitoring member SHGs and ensuring governance within financial federations are not in place yet. The sustainability of SHGs and their federations and VDAs are therefore contingent upon the continued support. Those CBOs that manage large livelihood activities like poultry units would similarly need the support of service providers to link to the supply chain as well business promotion

159. The OTELP may face issues with respect to (i) lack of sustainable financial mechanism to maintain the established community-based interventions such as the domestic water supply, community-based irrigation works, group-based IGA units such as processing mills, mother chick unit, fish ponds etc although various committees have been facilitated with a view to assisting these groups to ensure better facilities for O&M; (ii) performance of a number of CBOs and the federations has been moderately satisfactory and these call for further support both in terms of capacity building and financial assistance. Therefore a long-term plan for their sustainability may have to be worked out by ITDAs and OLMs

160. At the same time, it may be noted that institutionally, some positive results are being sustained well after the project exit including (i) community has been issued titles for the use of forest lands under FRA, the processes that have been institutionalised; (ii) out of 358 VDCs, a significant number of them operating with success and these continue to take interest in the development of the village communities under their respective oversight and these also continue to operate and use the funds available under VDF; and (iii) majority of SHGs are mature enough and are capable of handling their internal finances and nearly 50% having been linked to banks are capable of managing loans that are taken from the banks.

161. **Social sustainability:** OTELP has high level of social sustainability as its interventions have been largely demand-driven and community-centric. For example, OTELP interventions have been basically designed by involving the communities and are need-based and a number of small-scale infrastructure facilities both economic and community-based have been completed with significant contributions from the communities and the beneficiary households. Implementation results both CIF and DIF funds have been very significant and these were largely carried out in response to the felt-needs of the communities and beneficiary groups. The OTELP experienced a high participation of the tribal households in programme implementation through out the project

cycle, in particular building the community-based infrastructure and works under land and water management. Even the ultra-poor households took active part and generated positive results.

162. **Ownership:** All assets created under OTELP have been handed over to individual beneficiary or to the community as the case has been applicable for the dedicated O&M arrangements. Most of the results under land and water management have been handed over to the respective watershed management committees and the VDCs. The individual results such as small-scale lift pumps, wells etc were handed over to respective individuals or small-groups. All crop demonstrations were carried out on individual farm plots. The wadi plots are on individual farm lands and are under the respective beneficiary for continued maintenance. But horticultural planting within the forest areas and forest plantings are group or community owned. All livestock interventions are individual owned and the fish-ponds are community-owned and operated. Facilities provided under community infrastructure were handed over to either respective community, groups or individuals: pumpsets, drip irrigation units, kitchen gardens, grain-bins, vegetable cultivation, backyard poultry and goats, water-filters, smokeless stoves, support to vulnerable households, etc are individually-owned. All other remaining facilities are community-owned. Titles for land for 15,620 homestead plots and 2,006 farm lands are household-owned.

163. **Technical and economic sustainability:** Tribal producers' capacity is although limited and this has been reasonably enhanced under OTELP and the tribal farmers are now aware new technologies of crop cultivation and production. But they may not have continuing access to emerging technologies where there are a number of costs cutting provisions and means of enhancing profit margins. Secondly, they have limited access to inputs such as fertilisers, improved seeds and above all timely access to formal credit. These constraints will continue to put pressure on tribal households although the percentage of farmers adopting commercial agriculture has been increasing from 40% in 2010 to 64% at Completion. Amount of credit available from SHG is also highly limited and no more than INR 9,130/household.

164. Market conditions for the produce are highly volatile and at times economic costs of production is higher than average value of sales and more often the tribal producers subsist on incomes from labour-days. Secondly, the quantity of produce is often limited and are invariable not suitable for making contract arrangement of sales. Cost of transporting the farm produce to nearby markets is also comparatively higher to tribal producer than other farmers in view of inadequate transport and road conditions. The price margins realised by the tribal farmers are often lower than those of other farmers due to market access and logistic constraints.

165. **Environmental sustainability:** Overall, the results of OTELP interventions have contributed significantly to environmental sustainability. For example, a wide variety of soil and water conservation activities, low external input methods given preference in agriculture extension, drip irrigation demonstrating efficient use of water for agriculture, training farmers in the use of bio-fertilisers, composting and mixed cropping with legumes along with efficient use of water resources for agriculture through drip irrigation etc. Putting sloping lands that are marginal for crop cultivation, under fruit trees. There is strong emphasis on keeping habitations clean and in many villages the VDAs have ensured periodic cleanliness drives including health and sanitation with

low cost toilets with bath. Selected villages have also promoted plantations including horticultural plantations for livelihoods but also contributing to environmental focus

166. The project has contributed to improving quality of natural assets and climate resilience practices. Project's land and water management interventions (over 11 030 ha of land brought under land and water resource development; constructed over 453 units of water harvesting structures such as ponds; horticulture/WADI plantations raised over 75 ha) would have significantly contributed to improving local natural assets. The project has also promoted over 15 105 units of micro-irrigation kits and facilitated plantation of finger millets over 907 ha of land, besides vermi-composting. All of these activities would positively contribute to climate resilience, benefiting over 15 112 households as per project MIS. Crop diversification in home gardens and field crops together with scaling-up of legumes and roots/tuber crops promoted by the project also contribute to climate resilience.

167. **The exit strategy:** GoO has included the Phase II villages in OTELP+, the programme for upscaling of OTELP activities to other Blocks served by ITDAs across the State. This had already been done in case of Phase I villages. This would ensure that FNGOs and ITDAs would continue to support the VDCs and other community-based organisations for five more years and expand coverage of development activities through convergence with MGNREGA and other GoO and GoI programmes. The ITDAs have been designated as Programme Officers for MGNREGA in villages covered under OTELP and OTELP+. This is a sound exit strategy and it is expected that with five more years of support the community-based institutions would be able to manage activities on their own and also be able to leverage government services and programmes more effectively than at present. In any event, the following steps would further ensure sustainability of all interventions under OTELP:

- Grading and linking all SHG federations with OLM systematically;
- Effectively using the convergence support to provide missing gaps in infrastructure and other support facilities;
- Handholding support for O&M of all works in particular irrigation, watershed works, etc
- Handholding support in the form of training, inputs, O&M of all processing units, IGA units, fish-ponds, etc
- Creating more access to inputs including seeds, credit and more access to markets and market information

G. LESSONS LEARNT

168. **Project duration:** A process intensive tribal development project based on flexible

lending pattern with a long implementation period (originally 10 years, eventually 13 years) presents implementation challenges. There are inevitable changes in leadership, personnel and partners and loss of institutional memory with respect to the core features of the project as well as data unless strong systems are put in place from the very beginning and mechanisms (such as training of new incumbents) are embedded in the design for smooth transition management. Future tribal development programmes may be designed with a short implementation period, coupled with a strong emphasis on MIS, M&E and transition management. In this respect including MIS persons in the design and supervision missions to ensure clarity, continuity and consistence in data management and reliable updating of RIMS indicators would be helpful.

169. **Investment in tribal development:** The project has brought significant changes among Tribal communities. However, much larger investments would be required to enable most of the target households to overcome poverty given the ecologically complex geography of the project area and weak physical infrastructure. The resources could have been expanded through systematic convergence of various on-going government programmes as a part of the project design. But at the same time convergence calls for coordination at the higher levels and a commitment to suitably change the operating procedures of the project. As it is challenging to bring about such changes, appropriate suggestions for policy modifications should be mandated in the project design.

170. **Decentralization, empowerment and accountability:** Tribal communities, traditionally isolated from the mainstream can effectively plan and implement programmes for their own development provided (i) there is adequate investment in facilitation and capacity development; (ii) the planning, implementation and reporting systems are transparent; (iii) mechanisms are set up for social audit and (iv) decision making is decentralised. Such project methodologies can capacitate tribal communities, enhance their self-confidence and be most empowering.

171. **Working in conflict environment:** A tribal development project with strategies having elements of decentralization, participation, equity and empowerment, community-based approaches and transparency in planning and implementation can succeed even in areas acutely affected by LWE.

172. **Project management:** Dedicated project leadership with a full-time director for strategic guidance, a collegiate organisation culture, technically qualified staff for field level operations, a decentralised management structure and partnership with civil society organisations (such as NGOs) based on mutual respect accelerated the pace of implementation. In this respect the selection of NGO partners should be done with utmost care, taking into account their reputation, capability and orientation and providing them with clearly defined roles and responsibilities. Above all these NGOs should be considered as equal partners.

173. **Staff selection and orientation:** Appropriate orientation and capacity building of staff, including the NGOs working for tribal development, are among the good-practices demonstrated by OTELP, leading to the achievement of positive results. Staff selection for such programmes should be based on their "social orientation, motivation and commitment but project should also have satisfactory human resource policies in order to develop and retain project staff for longer duration". In an environment of high staff turnover, mechanisms must be in place for orientation

of new incumbents to the basic concept, purpose, design and methodologies of the project.

174. Engagement of civil society organisation: The OTELP strategy of engaging locally-adapted, socially-oriented civil society organisations, for community mobilisation in particular, has worked well. The results achieved in terms of community development and linking communities with government agencies have been very positive. In many places NGOs were able to effectively act as the bridge between the people and government agencies and several NGOs have continued to work in the project areas even after the project completion and this is a testimony to their commitment and the trust they have earned from the communities.

175. **Supervision missions** must be seen as mechanisms to support the project and contribute to the overall progress of the project and not just for supervision. In this respect, these missions are very aptly called joint supervision missions. Outputs of these missions have been the joint products of PSU, ITDAs and the mission members. Key and relevant observations are discussed and agreements reached between the parties and later on their compliance is reviewed.

176. **Capacity building for empowerment:** Empowerment of communities required extended training of both communities and facilitators in view of new roles expected of them and in this respect engaging partner NGOs for the crucial task of community mobilisation and promotion of participatory processes is very central to the projects aiming at the development of tribal.

177. **Land and water management:** Watershed-based approach although most suited for area development in a hilly terrain, leaves out households in project villages whose lands are outside the watershed. This calls for adopting an inclusive approach as demonstrated by OTELP whereby all households within selected villages are covered under the programme.

178. **Production system enhancement:** Natural resource development projects need to ensure adequate budgetary provision for productivity enhancement so that benefits from investments in development of the resource base are fully realised. A significant number of crop demonstrations were carried out successfully by OTELP but their replication could not be fully supported due to resource constraints. While working with resource poor farmers who are new to intensive production techniques, longer handholding and support for input-output linkages is required for sustainable adoption of new technologies.

179. **Individual vs group based enterprises, production systems:** Wadi model of horticultural plantations has been successful with effective participation by respective households. As these were on individual plots success rates were satisfactory and the farmers were able to take care of continued operations and maintenance. On the other hand, several fishponds under community management were poorly managed, with the communities needing support for desilting, proper upkeep of ponds and purchase of fingerlings for successive seasons.

180. **Rural financial services:** Organising women into SHGs, facilitating regular savings and providing revolving funds for credit significantly enhanced the self-confidence of women. However performance of SHG federations and their apex federations are still in their infancy and continued handholding support to them and for their sustainability linking them with OLM is necessary.

181. **Support to policy initiatives:** Poor people, especially tribal communities are often unable to derive benefits from government policies, especially those pertaining to entitlements because complicated and alien procedures. This is particularly true in the case of land distribution and obtaining legal title to land under various government programmes for tribal and landless people. Patient and sensitive support and facilitation by people knowledgeable about the applicable government procedures can help poor communities overcome these barriers. This was demonstrated by OTELP through engaging the services of RDI/Landesa to survey and identify the landless and eligible land for distribution, resulting in the award of titles to a large number of landless people. Mere presence of good policies does not produce the intended results, especially where complex procedures have to be negotiated by the intended beneficiaries.

182. **Implications to OPELIP:** Lessons and best practices from OTELP have been appropriately incorporated in the IFAD-supported OPELIP project for the GoO.

183. **Finance management and procurement:** The key learning of the OTELP fiduciary management are below, which would enable the PMU of OPELIP (new IFAD-supported programme) to establish good systems at the start are below:

(a) Programme Implementation Manual is a living document and any changes, revisions, modifications required or necessitated should be done on a timely manner, with the concurrence of IFAD.

(b) One or two staff members may have to be identified for procurement functions (even if the position of Procurement Officer is not there) so that appropriate and necessary capacity building trainings could be provided by IFAD;

(c) PIM should contain a detailed section on procurement aspects or a separate procurement manual should be developed based on IFAD Procurement Handbook. A set of standard templates for the competitive bidding should also be developed by the project, in consultation with IFAD.

(d) Accounting Software should be installed at the start of the programme at all levels of implementation with facility to synchronise and generate necessary financial reports as per the charts of account and Loan Disbursement Categories.

(e) Source of funding should be monitored on USD based on IFAD disbursement records, both by component and category. This would help the project in reporting to IFAD in a consistent manner.

(f) The observations resulting from the audit of C&AG and the action taken on these should be communicated to IFAD and also incorporated in the Audit Log.

(g) Supervision Mission reports should have a detailed section on procurement highlighting the adherence to IFAD Procurement Guidelines, risks and the mitigation measures.

(h) Whenever, community institutions are selected as implementation partners, a

detailed community procurement manual should be developed and offered to them for guidance.

i) Whenever, community institutions are selected as implementation partners, a detailed community procurement manual should be developed and offered to them for guidance.

H. CONCLUSIONS AND RECOMMENDATIONS

184. Overall performance of the project is satisfactory. Its objectives were consistent with those of GoI and GoO, and modalities adopted for its implementation have been appropriate although there is space for fine-tuning in order to making the project a "tribal-centric project model" for the development of tribal in Odisha and elsewhere in India.

185. Average investment cost was in the range of INR 75,000/household in constant prices and it is about INR 150,000 at current prices. Considering the geographical spread of project area, its remote area locations and the needs of the households, these investments appear to be justified. The project spent more than 57% of all resources on livelihood enhancement as against the Appraisal expectation of 70%. Investment cost of project management had been less than 10% of total investments.

186. In such a socially sensitive project such as OTELP, a properly build up MIS (physical, financial, staff, missions, reports, studies, households covered, gender mainstreaming etc) records are critical as these are basic tools in determining a number of performance indicators as may be required by the Govt, IFAD and the co-financiers. The MIS should be set up right from the beginning and in this context, more than a couple middle management staff imparted training and be responsible for updating and validating the data. IFAD missions should also pay attention to building up of MIS by the project.

187. Services and support of competent staff both at PMU/PSU and field levels are necessary for managing such a socially complex programme as the design and implementation in response to the needs and expectation of the participating communities are centric to the success of the project. In this respect, the PSU or PMU must have staff-friendly HR policies in place and should offer attractive salary packages. Above all a dynamic leadership for strategic guidance is paramount important.

188. Selection of competent NGOs for field level operations is central to the implementation of tribal development programme and with a view to attracting better qualified field NGOs, they should be offered longer duration contracts but based on stringent screening.

189. SHGs are practical and viable routes of empowering women in particular and also meeting small needs of credit to the member households and these should be effectively linked to banks and OLM so that these could play a higher level functions as expected of them.

190. Markets and market-linkages are next immediate steps for ensuring that the participating tribal households get fair prices for their farm commodities and products.

191. The ITDAs have been designated as Programme Officers for MGNREGA in villages covered under OTELP and OTELP Plus. While this is a sound exit strategy, the following steps would further ensure sustainability of all interventions under OTELP: (i) grading and linking all SHG federations with OLM; (ii) Effectively using the convergence support to provide missing gaps in infrastructure and other support facilities in particular for land and water management; (iii) Support for O&M of all works in particular irrigation, watershed works, fish-ponds etc and training, inputs, O&M to processing units, IGA units, etc; and (iv) Creating more access to quality inputs, credit, markets and market information, etc

Appendix-1: TOR of the Completion review mission

Terms of Reference for the "IFAD Technical Backstopping Mission"

A. BACKGROUND

OTELP focuses on empowering the tribal people and enabling them to enhance their social justice, food security, increase their incomes and improve their overall quality of life through more efficient natural resource management based on the principles of improved watershed management and more productive environmentally sound agricultural practices and off-farm/non-farm enterprise development.

Originally co-financed by DFID and WFP, the former has pulled out of the programme in March 2010. WFP supported the programme in kind in the form of food grains which was distributed to the communities (as wage earners) in the programme in a subsidized rate; however, distribution of rice from FCI go-downs in the district headquarters to the programme villages are borne by the project.

Under the Flexible Lending Mechanism, OTELP has been divided into three phases with trigger indicators that moved the Programme from one phase to the next. Phase-I had an allocation of SDR 1,650,000, Phase-II an allocation of SDR 9,200,000 and Phase-III has an allocation of SDR 5 200,000 totalling SDR 16.05 million.

Considering the success of OTELP and its impact on the tribal communities, the GoO has scale-up/scale-out the OTELP to new blocks in the present programme districts as "OTELP Plus". Launched in 2011, the budget for OTELP Plus over a five year period is INR 5 549 million (approx USD 100 million) and it would cover over 70,000 households, predominantly STs, in over 1 500 villages across 520 micro watersheds. More funds would be available through convergence following OTELP Plus-type processes. A top-up loan of USD 15 million (SDR 9.9 million) for a single category of expenditure (Development Initiative Fund) was approved by IFAD in 2013 and accordingly the completion and closing date were extended by one year to 31 March 2015 for Programme Completion date and 30 Sep 2015 for Loan Closing date. However, with the approval of one more year extension on 23 September 2014, the new and final loan completion date was extended to 31 March 2016 and loan closing date 30 September 2016.

Programme components. The Schedule Tribe & Schedule Caste Development Department of Government of Odisha through its Integrated Tribal Development Agency (ITDA) is implementing the OTELP. Several NGOs selected through competitive processes participate in the programme implementation as partners. Professionals in ITDA known as Subject Matter Specialists (SMS) and the Watershed Development Team (WDT) in the NGOs are the main drivers of the programme implementation in the fields. The Programme Components are as follows:

(a) Capacity Building for Empowerment: This component supported NGOs to mobilise communities, empower them through awareness creation on tribal rights, gender and equity

issues, natural resource management and programme planning; assist them, through micro-planning exercises, in the prioritisation of their development needs and in the formulation and implementation of development proposals and build/strengthen appropriate community institutions. It would also strengthen the capacity of the support agencies who will assist them as facilitators.

(b) Livelihood Enhancement. This component supported: (i) land and water management; (ii) participatory forest management to regenerate degraded forest land and to develop NTFP processing and marketing enterprises; (iii) improvements in agricultural productivity; (iv) improvements in animal husbandry; (v) improved access to rural financial services through the promotion of self-help savings and credit groups and linking them with formal financing institutions to augment their capital base; and (vi) development of community infrastructure to fill critical gaps in the provision of key rural infrastructure (e.g. drinking water, village link road upgrading) and to provide for necessary economic (e.g. worksheds, stores, mills, expellers) and social infrastructure (e.g. community halls).

(c) Support for Policy Initiatives. This component supported the operationalisation of the government's existing policy initiatives in relation to tribal' access to land and forest products through: (i) providing a legal defence fund to assist tribal in pursuit of land alienation/ restoration cases; (ii) supporting operational costs for improved detection and disposal of land alienation cases and monitoring enforcement of land restoration orders; and (iii) funding the survey and settlement process for the hill slopes between 10o and 30o. The Programme would also fund studies to deepen understanding on other key policy issues and engage government in dialogue on unresolved policy areas through a structured framework involving the establishment of milestones and a timetable for action.

(d) Development Initiatives Fund. Through this Fund, the Programme provided the flexibility to provide additional funding for well performing activities in demand from the communities and for new activities which become feasible and attractive in the course of Programme implementation.

(e) Programme Management. The Programme provided for the costs of Programme management at the state and field level.

(f) Food Handling. The Programme covered the cost of transport, storage and distribution of WFP food assistance.

B. MISSION OBJECTIVES AND OUTPUTS

Mission objectives. The broad objectives of the present mission will be to review and validate the Project Completion Report prepared and submitted by OTELP following IFAD's PCR Guidelines. In accordance with Programme Loan Agreement (read with Article VIII, Section 8.04 [Completion Report] of General Conditions for Agricultural Financing), OTELP is to prepare and submit the Project Completion Report (PCR)[49] to IFAD.

[49]The Project is likely to submit its PCR by May 2016; the Validated PCR has to be submitted prior to the closing of the loan, i.e. 30 Sep 2016.

.The mission will review the PCR document prepared by the project, assess and enhance its quality for its contents, data presentation, analysis and overall conclusions with synthesis of lessons learnt. For this purpose, the mission will also undertake field visits in randomly selected programme villages to interact with CBOs (such as VDCs and SHGs) and other stakeholders in the districts, besides various government agencies involved with the project.

The mission will take into account the findings of the project, the impact assessment carried out by Finance Department at State level and the RIMS endline survey carried out by the project as well as the impact survey carried out by IFPRI as in the PCR report and other issues emerging from interviews and interactions with various stakeholders in the fields. While the mission will focus for generating a comprehensive, evidence-based evaluation on selected issues and programme activities/achievement, due attention will be paid in filling any major gaps of the PCR and other documents of the project. The mission will outline the lessons learned that will feed into the programme management and interventions under OPELIP. The mission will also make ratings of the various indicators of the project interventions in accordance with the PCR guidelines.

Validation Evaluation/Assessment Criteria[50] The mission amongst others will address the issues of project strategy and approaches, relevance, cost and financing, efficiency, output, effectiveness, impacts, sustainability, replications and performance of the partners.

(i) **Relevance,** which is assessed both in terms of alignment of project objectives with country and IFAD policies for agriculture and rural development and the needs of the rural poor, as well as project design features geared to the achievement of project objectives.

(ii) **Effectiveness,** which measures the extent to which the project's immediate objectives were achieved, or are expected to be achieved, taking into account their relative importance.

(iii) **Efficiency,** which indicates how economically resources/inputs were converted into results.

(iv) **Rural poverty impact,** which is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a results of development interventions. Five impact domains are employed to generate a composite indication of rural poverty impact: household income and assets; human and social capital and empowerment; food security and agricultural productivity; natural resources, environment and climate change; and institutions and policies.

(v) **Sustainability,** indicating the likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.

[50]From PCR Guidelines and other documents of IFAD (Memo on Operational Procedures on Completion Reporting dated 11 Nov 2015)

(vi) **Pro-poor innovation,** replications and scaling up, assessing the extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction and the extent to which these interventions have been (or are likely to be) replicated and scaled up by government, private sector and other agencies (or even by the communities).

(vii) **Gender equality and women's empowerment.** This criterion is related to the relevance of design in terms of gender equality and women's empowerment, the level of resources committed, and changes promoted by the project.

(viii) **Performance of partners,** including the performance of IFAD and the Government, will be assessed on an individual basis, with a view to the partners' expected role and responsibility in the project life cycle.

(ix) **Focus on outcomes, and selectively on impacts,** assessing immediate results generated by operations/interventions, from outputs to intermediate outcomes along with measuring impacts level results at least for selected interventions that could contribute to learning

(x) **Rating** by the mission on selected parameters (as per Memo on Operational Procedure on Completion Reporting dated 11 Nov 2015) that will contribute to guiding the final rating to be done at Quality Assurance (QA) or by the Division of Asia and Pacific of IFAD.

(xi) **Lessons learned.** Lessons learned from project implementation. Key questions could be: (a) If we could do this project again, i.e. replicate it, what would we do differently? What could we have been done better? What advice would we give to others? (b) What was overlooked in the design? What alternative strategies could have been adopted? (c) What additional support would have been useful/was required [from whom]? (d) Which project activities had the most significant and positive impact on beneficiaries? Which activities demonstrated the highest relevance, effectiveness and sustainability? Which were the least successful? Why? (e) Which project activity contributed most significantly to the achieving the project goal and objective(s)?, etc.

Mission outputs. The Mission will have the following outputs:

The Mission will produce a validated Project Completion Report for OTELP in IFAD format to be submitted to IFAD, Govt of Odisha and Govt of India.

Mission Aide Memoire prepared after sharing the findings with the OTELP PMU and presented and discussed with the Govt of Odisha in a wrap-up meeting.

A Management Letter

The final validated PCR Report (as mission report) prepared and submitted in IFAD format with all Appendices in prescribed formats including Ratings within 10 days of completion of the mission (in this case with the completion of wrap-up meeting with DEA, MoF, GoI as

the borrower). Lessons learned having relevant for the new project OPELIP will be specially outlined

.

C. INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES

(A.M. Alam, IFAD Consultant (Mission Leader; Economist; Project Management; DIF)

The mission leader will closely work with CPM and ICO to deliver the final deliverables or outputs as per prescribed IFAD formats. While being overall responsible for timely quality outputs and mentoring the mission members to contribute their best in their fields of specialisation, amongst others, he will address the followings:

Review the PCR of the project for quality assessment and enhancement in line with the PCR guidelines of IFAD and undertake validations through field visits, interactions with project communities and various stakeholders particularly on components/sub-components relating to project management, DIF and investments in terms of cost and benefits in various activities or interventions of the project.

Re-draft the validated PCR if required in line with the PCR guidelines, which will become the Main Report of the mission; while preparing the PCR Main Report, he will ensure that all the assessment criteria as outlined in para 9 above (assessment criteria) and in the PCR guidelines are duly addressed, comprehensively analysed and reflected in the report as validated results.

He will be responsible for all the components and/or sections of the PCR not dealt by any member of the mission.

In coordination with the FM specialist of the mission, he will review the PCR to provide quality enhancement in the areas of (a) Project cost and financing (b) Summary of the amendments to the loan agreement (c) Actual project costs (i) by component and (ii) disbursement by financier, compared with the original and/or amended design.

In coordination with other members of the mission, he will validate and address the presentation of the project outputs and outcomes, and provide assessment of efficiency, project effectiveness, impacts and sustainability and other parameters per para 9 above (assessment criteria) and PCR guidelines particularly in the project interventions and achievements relating to project management, DIF and grant activities of the project including DFID TA, WFP and other grants.

He will be responsible to validate and prepare for Annex I and III to VI of the Main Report as per the PCR Guidelines; he will re-work the presentation of the Project Logframe and Financial and Economic Analysis of the project in the PCR (Appendix-10) with due validation of the qualitative and quantitative data analysis addressing the costs and benefits of the project.

He will address the extent at which resources have been utilized efficiently, eg. using cost

comparisons with other development projects; he will calculate the internal rate of return, cost and benefits of the various interventions, recalculation of the economic rate of return showing actual costs by component/sub-component and an updated estimation of projected benefits, reflecting changes made during implementation, actual coverage and any changes in economic prices and market conditions; an analysis on the impact on NPV/ROR along with sensitivity analysis of project performance indicators.

As part of economic and financial analysis, he will also work out some models of cost and benefits of project interventions, such as (a) proxy livelihoods models based on agriculture particularly for vegetables and livestock or dairy; (b) irrigation benefits; (c) farm roads benefits, etc. to indicate income / net income against investments in these interventions.

Focusing on outcomes and impacts on selected interventions, he will contribute in the compilation of lessons learnt linking with how the economic activities under the project enabled the rural poor to work their way out of poverty, food and nutritional insecurity.

He will be responsible to prepare Mission Aide Memoire highlighting the lessons learned from OTELP in addition to innovation, replication and upscaling by/from the project and Main Report with all annexes as per the PCR Guidelines including rating for the PCR .

Any other matter CPM may assign.

Deep Joshi, IFAD Consultant (Institutions; NRM & Livelihoods; Tribal Development/Policy Development Initiatives)

He will contribute in the following areas in addition to any other matter may be assigned by the ML and CPM:

In consultation with the mission leader and other members of the mission, he will validate and address the presentation of the project outputs and outcomes by components/sub-components of project interventions in the areas of NRM and livelihoods and provide assessment of efficiency, project effectiveness, impacts and sustainability and other parameters per para 9 above (assessment criteria) and PCR guidelines.

Review, collate and analyse project achievements and lessons learnt under Support for Policy Initiatives such as support the operationalisation of the government's existing policy initiatives in relation to tribal peoples' access to land and forest products through: (i) providing a legal defence fund to assist tribal people in pursuit of land alienation/restoration cases; (ii) supporting operational costs for improved detection and disposal of land alienation cases and monitoring enforcement of land restoration orders; and (iii) funding the survey and settlement process for the hill slopes between 10o and 30o (as per design).

Project achievements for land rights of the tribal people under various laws such as Forest Rights Act (FRA), OPLE Act, OGLS Rules, Vasundahra Scheme and Mo Jami Mo Dhia Scheme with lessons learnt.

The Programme would also fund studies to deepen understanding on other key policy issues

and engage government in dialogue on unresolved policy areas through a structured framework involving the establishment of milestones and a timetable for action.

Assess effectiveness of various participating and implementing institutions including CBOs, NGOs, ITDAs, grant partners, etc.

He will undertake the validation and preparation of Appendix-8 (year-wise physical progress and achievements against the appraisal/MTR targets including RIMS); a note for the Appendix-11 (Impact on Environment); and Appendix-12 (stakeholders workshop findings) of the PCR.

He will contribute in the mission Aide Memoire and Main Report in consultation with the mission leader including in the preparation of lessons learnt; additionally he will prepare and submit a separate synthesis note on "Lessons Learned in Tribal Development".

Any other matter ML and CPM may assign.

S. Sriram, IFAD ICO (Financial Management & Procurement Specialist)

The FM specialist of the mission will address the following:

Verify and validate all financial and accounts / SoE records of the project in PMU and ITDAs including any funds released by the project to implementing partners (such as NGOs, VDCs, etc) and co-financiers such as WFP & DFID.

Review all documents relating to fiduciary aspects of the project including all the audit reports and compliance of audit observations and assets management by the communities/VDCs, etc.

Assess the financial literacy at community levels such as VDCs, SHGs, etc. that will contribute to project sustainability.

All procurement related issues including community based procurement and their effectiveness and efficiencies, and lessons learnt for new project in the state (OPELIP).

Contract management systems and management of assets registers and records and lessons drawn from the intervention.

In close coordination with the Economist, the FM Specialist will work on the Project Cost and Financing (to address all aspects relating to project costs and financing as outlined in the PCR Guidelines under this section).

In coordination with the mission economist, he will also contribute to the assessment of impacts on financial assets, assessment of financial performance of the partners, summary of the amendments to the loan agreement **(Appendix-6)** and actual project costs (i) by component and (ii) disbursement by financier, compared with the original and/or amended design **(Appendix-7)** and utilization of IFAD Financing and Government counterpart funding at all levels, review of efficiency of the procurement actions undertaken by the project and pending resolution of audit observations.

He will contribute in the preparation of lessons learned in terms of financial management aspects including experiences and lessons learned on financial literacy at groups and community levels, contract management, procurement, assets management, etc.

Contribute in the mission aide memoire and main report in relevant sections in consultation with the mission leader.

Any other matter that may be assigned by the ML and CPM

Vincent Darlong, IFAD ICO, New Delhi (M&E)

He will closely work with the ML and other members of the mission, and amongst others, he will address the followings:

While providing overall coordination and supports to the mission, he will coordinate with the project in advance for preparation of the mission and availability of all the documents for reference of the mission.

He will review the relevant section of the PCR for contribution in the mission aide memoire and mission main report in consultation with the mission leader and other members of the mission particularly in cross-cutting thematic areas.

Participate in field visits and undertake an assessment of project interventions through focused group discussions and appreciative enquiry on stakeholders' feedback that will contribute to assessment of project relevance, efficiency, effectiveness, impacts, sustainability, etc.

Review project activities under land and water management, WADI and other agro-forestry development interventions, etc. to contribute to preparing impacts on environment.

He will contribute on gender and targeting issues in the PCR main report.

He will validate all M&E and RIMS data and contribute in particular for the Appendix-2, Appendix-5, Appendix-9 (RIMS) of the PCR with ML and other members of the mission; he will also prepare a matrix on environment analysis to feed to Appendix-11 of the PCR.

He will contribute in preparation of lessons learnt in delivery of appropriate development interventions in remote mountainous areas based on true empowerment and community-based development approaches in consultation with ML.

Contribute in mission aide memoire and main report in consultation with the mission leader.

Any other tasks that may be assigned by the ML and CPM

Ms Yuka IRIE, Associate Professional Officer (Natural Resources Management)

She will work closely with Mr. Deep Joshi and will undertake the following activities :

Review the land and water management activities with specific focus on the effectiveness of the

participatory planning methodology, community led implementation of activities, and results (biomass regeneration, water holding capacity, reduced soil erosion, agricultural productivity, food security).

Assess community capacity to maintain and expand the land and water management activities.

Assess how the land and water works are helping preserve or revive tribal culture around natural resources management.

Assess the equity of the land and water activities and that the benefits are accruing to the poorer households.

Review the social audit reports conducted at community level on the land and water management activities and assess whether there is convergence in the assessment between the community and the technical team of the project and competent authorities.

Review the situation with land alienation in tribal areas and the process for detecting, reporting and arbitrating these cases. Document the process and the evolution in number of cases reported.

Quantify the costs and benefits of the non-timber forest products. It was expected that the net income from these activities would increase by 50% over project lifetime.

Review the package of practices used for crop and livestock cultivation and the effects of these on the environment and producers' safety.

Describe the results and lessons learned emerging from the project land and water management activities.

Contribute a summary of the main findings to the aide-mémoire of the mission.

Contribute to the write-up of Appendix-11 (Impact on Environment) of the Project Completion Report.

Any other tasks that may be assigned by the Mission Leader (ML)

Ms Rasha Omar, CPM

CPM will have cross-cutting tasks:

She will provide overall oversight and guidance to the mission to ensure compliance of all mission reports as per IFAD formats and requirements.

She will lead in the discussion and wrap-up meetings with GoO and DEA representing IFAD.

D. DOCUMENTATION

The following documentation will be made available to the mission:

- PCR Report submitted by OTELP.
- Programme Loan Agreement, Amendments to the Loan Agreement and Agreed Minutes of Loan Negotiations
- All Supervision Mission Reports & MTR Report
- Studies and surveys done by the Project including documents and study reports prepared through TAs DFID and grant projects.
- The impact assessment of the project carried out by the State Finance Department.
- The endline survey carried out by IFPRI.
- Annual Outcome Surveys Reports
- Annual Progress Reports of the Project particularly the last one (2015-16).
- Report of the Follow-up Missions or ISMs
- LGS Data (the Historic transactions and Status of Funds by Category data)
- All financial reports including Audit Reports.
- PCR Guidelines
- IFAD Memo on Operational Procedures for Completion Reporting dated 11 Nov 2015.

Appendix-2: List of Persons met and mission's programme

Appendix-2 A: Travel Itinerary of the PCR ISM Mission and List of persons met

Date	Place	Tasks carried out by PCR ISM
17 Apr 2016	Bhubaneswar	Mission arrival
18 Apr 2016	Bhubaneswar OTELP Office	Meeting with the PD, PSU Meeting with the PSU PCR preparation team Discussed the status of data collection Plan for field visits and logistic support
19 Apr 2016	Bhubaneswar OTELP Office	PCR report format and outlines were discussed PCR guidelines discussed Duties and responsibilities of PCR preparation team discussed
20 Apr 2016	Bhubaneswar OTELP Office	PCR Team made a presentation of their plan for PCR report writing including data collection, analysis etc
21 Apr 2016	Bhubaneswar 1/	Mission left for Gunupur ITDA by car and reached Gunupur by 1500 hrs Mr Darlong returned to New Delhi
22 Apr 2016	Gunupur	Visited Kantamal village in Kashipur Block and interacted with the beneficiary community; visit to the second village was not possible
23 Apr 2016	Gunupur 2/	Visited Tala Chelianala village and Pajeri Pedar village in Muniguda Block and interacted with the beneficiary communities. Returned to Gunupur Stakeholder meeting in the afternoon on focused points at Gunupur ITDA office.
24 Apr 2016	Travelled to Paralakhemundi	Travelled to Paralakhemundi and visited Purunandhia village in Udayagiri Block and interaction with the beneficiary group
25 Apr 2016	Paralakhemundi	Visited Bariabandha village in Mohana Block In the afternoon stakeholder meeting.
26 Apr 2016	Left Paralakhemundi for Bhubaneswar	On the way visited Lompada village in Mohana Block (one of the OTELP Plus villages) and interacted with beneficiary groups Reached Bhubaneswar at 1530 hrs
27 Apr 2016	Bhubaneswar OTELP Office	De-briefing the PSU PCR preparation team
28 Apr 2016		Departure for home base

1/ Mr Manoranja Mangaraj, GIS expert, PSU accompanied the mission and he returned to Bhubaneswar on 23 April 2016. 2/ Mr P K Mohanty, Expert Livelihoods, PSU joined the mission on 23rd April 2016

Appendix-2 B: Travel Itinerary of the PCR Validation Mission

Date	Place	Tasks carried out by the mission
19 June 2016	Bhubaneswar	Mission arrival
20 June 2016	Bhubaneswar OTELP Office	Meeting with PSU staff
21 June 2016	Bhubaneswar OTELP Office	Meeting with the PD, PSU Meeting with the PSU PCR preparation team Discussed the status of data collection Plan for field visits and logistic support
22 June 2016	Bhubaneswar OTELP Office	Mr Deep Joshi, Mr Vincent Darlong and Ms Yuka Irie left Bhubaneswar for Nawarangpur at 0730 hrs Reached Nawarangpur in the evening Stay at hotel Mr A M Alam stayed back and working with documents
23 June 2016		Team visited village: in Kangumajhiguda village in Papadahandi Block in Nawarangpur district Visited also Dambuguda village under Tentulikhuti Block OTELP Plus Interaction with the ITDA and FNGOs at Nawarangpur
24 June 2016		Team left Nawarangpur and travelled to Koraput iTDA Enroute visited Ganiput village under Biopariguda Block OTELP Plus under Jeypore ITDA and interacted with the beneficiaries Visited Dasmantpur Block under Koraput ITDA and interacted with the beneficiaries from villages Naranga, Tala Naranga, Routput and Jamukoliguda In the afternoon interaction with ITDA and FNGOs Stay at Koraput
25 June 2016		Met the PSU and discussion about additional data Team left Koraput at 0730 hrs and reached Bhubaneswar at 1600 hrs
26 June 2016		In-house discussion about report drafting and appendices
27 June 2016		Mission discussions with the staff of PSU
28 June 2016		Report writing
29 June 2016		Stakeholders' workshop in Bhubaneswar
30 June 2016		Aide-memoire preparation
1 July 2016		Aide-memoire preparation
2 July 2016		Pre-wrap up meeting with the PSU team
3 July 2016		Report writing
4 July 2016		Wrap up meeting & mission departure
5 July 2016		Mission departure

3/ Mr P K Mohanty, Livelihoods experts, PSU, accompanied the mission

List of Persons met

OTELP, PSU, Bhubaneswar
Mr Srikanta Prusty, Project Director, OTELP
Mr Prasana Kumar Dalabehera, Programme Officer, NRM
Mrs Kalyani Mishra, Programme Officer, PM&E
Mr Dipti Ranjan Gantayat, Programme Officer, POCB
Mr C A Suhas Dey, Chief Finance Officer
Mr Sukanta Kumar Mohapatra, Manager MIS
Mr Gautam Kumar Mohanty, Additional Programme Officer, PM&E
Mr Surendra Nath Senapati, Senior Engineer
Mr Pradipto kumar Mohanty, Livelihoods expert
Mr Manoranjan Mangaraj, GIS Expert

ITDA Gunupur, Rayagada district
(Persons who participated in group discussions on 23rd April 2016)
Mr .Karunakar Raika, Project Administrator, ITDA, Gunupur.
Mri Rupesh Kumar Mohanty, Agriculture Officer, OTELP, ITDA, Gunupur.
Mr .Jaya Prakash Baral,MIS-Executive, OTELP,ITDA, Gunupur.
Mrs-Deepika Jena-WDO, OTELP, Gunupur
Mr. J.S.R. Achary-MFO OTELP, Gunupur

FNGOs, Gunupur
Mr Lokanath Pradhan,Team Leader, FARR, Muniguda
Mr Jajati Pandit, Team Leader,Gudari
Mr Purna Ch Kadambala, Team Leader, Chardrapur
Mr Rakesh Behera, Expert Engineer, FARR,Muniguda
Mr .Ansuman Dhoba-Ex-expert engineer SHAKTI.
Mr Krishna Rao, Expert, Social and ME. SHAKTI.
Mr Sujit Mohanty- Ex-expert engineer AKSSUS.
Mr Manoj Kumar Bauria, Team leader and social and ME-AKSSUS.

ITDA Paralakhemundi, Gajapati district
Mr Parikshita Sethy, Project Administrator, ITDA, Paralakhemundi
Mr Bijayakumar Mohanty, Project Officer (PM&E)
Mr Girija Bhusan Mishra, Finance Officer
Mr Paresh Kumar Behera, Project Officer (CB)
Mr Manoranja Pande Micro-finance Officer
Ms Tulasi Mohanna, Addl Engineer

FNGOs
Mr Surendra Kumar Panda, Team Leader, SWWS-II
Mr Durjayadhan Mallik, Team Leader Gram Vikas-II

ITDA, Nabarangpur, Nabarangpur district
Ms Pama Tudu, Project Director, DRDA
Mr Laxmidhar Das, ADM
Mr Narayan Murmu, Project Administrator
Mr Pabitra Mohan, Project Officer, PM&E
Mr Suvendhu Kumar Dhol, Project Officer (CB), OTELP
Mr Debajyoti Jena, Agriculture Officer
Mr P K Sahu, Finance Officer
Mr Kiran Charan Padhy, Watershed Development Officer
Mr Jyotirmaya Patra, Micro-finance Officer
Mr Prabin Kumar Patra, MIS officer
Mr Kalpataru Panda, Accountant, OTELP
Mr B Suman, AFA,

Mr Ranjit Kumar Meher, Livestock inspector
Mr Ansuman Pattnaik, AAO Agriculture

FNGOs, Nabarangpur

Mr Rama Khilla, Expert engineer, Tentulikhunti
Mr P K Das, M&E expert, Tentulikhunti
Mr Tusar Paul, Accounts in-charge, OTELP, Jharigaon
Mr Priyabrata Khamari, Team leader, AVA, Tentulikhunti
Mr Sankar Acharya, Team leader, Tentulikhunti, OTELP Plus
Mr Santosh Kumar Sadangi, Engineer, IAEET,
Mr Santosh Kumar Rout, Team Leader, IAEET, Tentulikhunti
Mr Rajendra Prasad Sau, Accountant, IRDMS, Debugaon
Mr Basanda Kumar Parida, IRDMS, Dabugaon
Mr Sunil Kumar Duna, IRDS, Dabugaon
Mr Bidekendra Pattnaik, Accountant, IEET, Tentulikhunti
Mr Sunil Ghadei, Livelihood expert, IAEET, Tentulikhunti
Mr Santosh Kumar Sahu, Engineer, IRDMS, Dabugaon
Mr Pradipto Kumar Swain, Accountant, IRDMS, Papadahandi
Mr Lambodhar Padhan, Team leader, IRDMS, Papadahandi
Mr Santosh Kumar Das, Accountant, AVA, Tentulikhunti
Mr Sunil Kumar Choudhary, Accountant, RCDC, Kosagumuda

ITDA, Koraput

Dr Manoj Kumar Nayak, Project Administrator, ITDA, Koraput
Mr Soumaya Ranjan Swain, Project Officer (PM&E)
Mr Bhabani Sankar Kalo, Project Director, Watershed, Koraput
Mr K K Nanda, ACF, Koraput Division
Mr Subrat Kumar Rath, DAO, Koraput
Mr Roshan Kumar Karthik, CEO, DSMS, OLM, DRDA
Mr Satyajit Senapati, MGNREGA Coordinator, DRDA
Mr Lingaraj Achary, DDH
Dr D Barik, ADVO
Mr Malaya Kumar Jena, MIS Executive, OTELP
Mr Antaryami Lenka, AO, OTELP
Mr Chinmaye Sahu, WDO, OTELP
Mr Gagan Behari Panda, FO, OTELP
Mr Ananda Pradhan, PO (CB), OTELP

FNGOs, Koraput

Mr Debasis Pati, Harsha Trust
Mr Ajit Kumar Bisoi, Team Leader, CYSD, Dasamantpur
Mr Rameshwar Sahoo, Director, LAVS
Mr Saraj Kumar Nayak, Team Leader, TSRD
Mr Umesh Balabantary, TSRD
Mr Ramesh Chandra Swain, CYSD, Koraput
Mr Biranchi Paikray, LANDESA, Koraput
Mr Tapan Khosla, LANDESA, Koraput
Mr Tapan Kumar Maharana, LAVS
Mr Santosh Kumar Das, CYSD, Dasamantpur
Mr Suresh Kumar Panda, Team Leader, TSRD, Semiliguda
Mr Tapan Kumar Mishra, Team Leader, TSRD, Nandapur
Mr Pradeep Kumar Mishra, Team Leader, FES, Narayanpatna
Mr Prasant Patnaik, Team Leader, COFA
Mr Bijoy Kumar Toppo, Team Leader, FES
Mr Prasanjit Ray, Livelihood expert, VIKASH
Mr Balaram Kuresi, VIKASH, Narayanpatna

Appendix-3: PCR rating matrix

PROJECT NAME: Odisha Tribal Empowerment and Livelihoods Programme (OTELP)	
PROJECT ID: 585 IN	
BOARD APPROVAL DATE: **23/04/2002**	
ENTRY INTO FORCE: **15/07/2003**	
PROJECT COMPLETION DATE: **31/3/2016**	
LOAN CLOSING DATE: **30/09/2016**	
IFAD LOAN & GRANT AMOUNT (USD million): 34.797	
TOTAL PROJECT FINANCING (USD million): 78.287	
IMPLEMENTING AGENCY: **ST & SC Development, Minorities and Backward Classes Welfare Department, Government of Odisha**	
Criterion	**PCR Rating a/**
Project performance	
-Relevance	6
-Effectiveness	5
-Efficiency	4
-Sustainability	5
Rural poverty impact	
-Households' incomes and assets	5
-Human and social capital and empowerment	5
-Food security	5
-Agricultural productivity	4
-Institutions and policies	5
-Overall rural poverty impact	5
Additional evaluation criteria	
-Gender equity and women's empowerment	5
-Access to markets	4
-Innovation	5
-Potential for scaling up	6
-Environment and natural resource management	5
-Adaptation to climate change	5
-Targeting and outreach	6
Partners performance	
-IFAD's performance	5
-Government performance	5
-DFID performance	2
-WFP performance	4
Overall project achievement	5

Appendix-4: Project logical framework

Results Hierarchy	Indicators					Means of verification			Assumptions
	Name	Baseline	YR 1	MTR	Endline	Source	Frequency	Responsibility	
Goal: Quality of life of poor Tribal households in remote areas improved	-Average number of assets of 56,180 households	0	0		Significant increases	MIS report RIMS survey a/	Annual Annual	M&E unit	Relatively stable economic conditions exists and continued government support for the OTELP
	-Reduced out migration for work	17%	0	10%	4.3%	Annual outcome survey	Annual		
	-Prevalence of child malnutrition and IMR & MMR	high	high	high	IMR & MMR higher than state average	Impact assessment survey	Endline	Outsourced to IFPRI	
	-at least 50% of BPL households show food security	0%	0%	20%	100% hh food secure	AOS	Annual	M&E unit	Other government programmes for food security ongoing
Development Objective						a/ RIMS survey captures sex disaggregated data			
Livelihoods and food security of 56,180 poor Tribal households in Odisha sustainably improved	-equitable increase of at least 50% in incomes	0%	0%	10%	58% increases in net incomes	MIS reports Annual reports Mission report Thematic surveys	Quarterly Annual Annual Random	M&E unit M&E unit IFAD	Households respond to opportunities for improved livelihoods and access to market and credit
	-All households have access to safe drinking water and basic sanitation	0%	0%	10%	78% of households have access to safe drinking water				
COMPONENT OUTCOMES									
1. Capacity building for empowerment	-strengthened SHGs	0	0	2610 SHGs	4,273 SHGs	MIS reports Annual reports Mission report	Quarterly Annual Annual	M&E unit M&E unit IFAD	Technical agencies perform their tasks and favorable responses from the communities
	-strengthened VDCs	0	0	100 VDCs	358 VDCs				
2. Livelihoods enhancement	-agricultural and horticultural productivity sustainably increased for 56,180 hh	0%	0%	10%	68% hh reported productivity increases	MIS reports Annual reports Mission report	Quarterly Annual Annual	M&E unit M&E unit IFAD	Communication and road network are developed; improved technologies for hills agriculture are available and profitable;
3. Support for policy initiatives	-landless Tribal allotted land titles for homestead and farming	0	0	0	15,620 hh allotted homestead and farmlands to 2,006 hh	MIS reports Annual reports Mission report Thematic studies	Quarterly Annual Annual Random	M&E unit M&E unit IFAD PMU	

Country	**India**				
Project Name	**Odisha Tribal Empowerment and Livelihoods Programme (OTELP)**				
Key Data:					
IFAD Appraisal	Signing	Effectiveness	Mid-term Review	Original completion	Actual completion
23/04/2002	18/09/2002	15/07/2003	07/09/2006	31/03/2013	31/03/2016
Mid-term Review-II	Interim Evaluation	Original Loan closing	Actual loan closing	Number of extensions	
10/10/2010		30/09/2013	30/09/2016	2	
IFAD Financing:					
Loan	SDR million	16.05	% disbursed	100%	
Loan, top up	SDR million	9.90	% disbursed	61%	

Actual costs and financing (USD 000):

Component	IFAD	DFID	WFP	GOVT	Beneficiaries	Total
Capacity building	3,541	2,384	0	2,546	0	8,471
Livelihood enhancement	17,188	9,305	5,580	8,765	4,626	45,464
Support to Policy Initiatives	58	0	0	192	0	250
DIF	10,520	415	0	5,054	0	15,989
Project	2,554	1,336	0	3,814	0	7,704

Appendix-3: PCR rating matrix

	Mission Type	Dates	Mission Member	Specialisation
1	Supervision Mission	Feb, 2004	Mr Narsingh Rao Singayapally	Team leader, Senior portfolio manager, UNOPS, Bangkok
2	Supervision Mission	April 21-27, 2005	Mr Narsingh Rao Singayapally	Team leader, Senior portfolio manager, UNOPS, Bangkok
			Mr. Virinder Sharma	DFID Livelihoods and Environment Adviser
			Mr Hadi Shams	Consultant, IFAD, Rome
			Mr. Basant Bal	State Director, WFP, Bhubaneswar
			Mr Himanshu Bal	Representative, WFP, Bhubaneswar
			Mr Shankar A Kutti	Loan Administartion Associate, UNOPS, Bangkok
3	PHASE I REVIEW	8th-28th August 2006	Mr. Phillips Young	Team Leader
			Mr. Crispino Lobo	NRM and Participatory Forest Management
			Mr. K. M. Chalai	Programme Management
			Ms. Janet C. Geddes	Livelihoods Enhancement
			Ms. Anthya Madiath	Community Empowerment & Gender
			Mr. C. K. Ramachandran	Financial Management and Audit
			Ms. Saleela Patkar	SHG Development and Microfinance
			Mr. Mattia Prayer Galletti	IFAD's Country Portfolio Manager
			Ms. Anuradha Maharishi	DFID Programme Officer
			Mr. Virinder Sharma	DFID Livelihoods and Environment Adviser
			Ms Geeta Unnikrishan	DFID Social Development Adviser
			Mr. B. K. Bal	State Director of WFP
4	Project Review Mission	19th November-3rd December 2007	Mr. Kishan Singh Gill	Senior Portfolio Manager UNOPS Asia Office, Bangkok
			Mr. C. K. Ramachandran	Rural Institution and Development Specialist (UNOPS Consultant)
			Mr Mahendra Verma	Financial Managemnet Specialist(UNOPS Consultant)
			Mr. Y. Ramesh	Rural Infrastucture Specialist (UNOPS Consultant)
			Mr Shaheel Raffique	Implementattion support Specialist (IFAD field Presence Office)
			Mr Saujay Valsangkar	DFID
			Ms. Supriya Patnaik	DFID
			Mr. Basant Bal	State Director, WFP
5	Joint Review Mission	21st April - 5th May 2008	Mr. C. K. Ramachandran	Rural Institution Development Specialist (IFAD, Consultant)
			Mr. Y. Ramesh	Rural infrastructure Development Specialist (IFAD, Consultant)
			Mr. Mahendra Verma	Financial & Project Management Specialist (IFAD, Consultant)
			Mr. Himanshu Bal	WFP, Orissa
			Dr. Virender Sharma	Livelihoods and Environment Adviser, DFID
			Mr. Chris Chalmers	Senior Programme Manager, DFID
			Mr. Shaheel Rafique	Implementation Support Specialist & Mission Leader
			Ms Supriya Pattanayak	State Representative, DFID
			Mr. Anirudh Tewari	CPC, ICO, IFAD
6	Joint Review Mission	20th -29th November 2008	Mr. Deep C. Joshi	IFAD Consultant, Community & Rural Institution Development & Team Leader
			Ms.Indrani Singh	(IFAD Consultant, Rural Financial Services & Gender)
			Ms Chandra Singh	(IFAD Consultant, Financial Management),
			Mr. S.K. Singh	(Project Management & Community Forests and PD, CTDP)
			Ms. Karen Juergens	(Associate Investigation Officer, O/o Audit & Oversight, IFAD),
			Ms. Aditi Rajyalaxmi	(DFID, India)
			Mr. Himanshu Bal	(WFP, India)
			Mr. Vincent Darlong	(Implementation Support Specialist, ICP)
			Dr. S.N. Nigam	(ICRISAT, Hyderabad)
			Dr. Virinder Sharma	DFID India
			Mr. Anirudh Tewari	Coordinator, ICP
7	Joint Review Mission	2nd - 17th November 2009	Mr. Deep C. Joshi	(Community & Rural Institution Development & Team Leader)
			Mr. Ganesh Neelam	(Natural Resource Management & Livelihoods)
			Dr. K.S. M urali	(Climate Change)
			Ms Sandhya Tamrakar	(Rural Financial Services & Gender)
			Mr. Sudhir Muralidharan	(Financial Management)
			Dr. G .J. Patra	(ICRISAT consultant)
			Ms. Supriya Patnaik	(DFID, India)
			Mr. Vincent Darlong	(Tri bal Development)
			Dr. Virinder Sharma	DFID India
			Mr. Basant Bal	State Director, WFP
8	Phase - II Review Mission	3rd-20th October 2010	Mr Kishan S Gill	Project Management, M & E and Team Leader
			Mr Deep Joshi	Rural Livelihoods & Rural Financial Services
			Mr C.K.Ramachandran	Community Institution Building & Empowerment, Policy Initiatives & Governance
			Mr Crispino Lobo	NRM & Watershed Development
			Ms Judith D'Souza	Rural Sociology, Gender & Targeting
			Ms Ankita Handoo	Knowledge Management
			Mr Vincent Darlong	IFAD Country office
			Mr H. Bal	WFP ,Bhubaneswar
9	Joint Review Mission	16th -27th August 2011	Mr Deep Joshi	Team Leader, Project Management & Rural Livelihoods
			Ms. Lathamala	Gender & Institution Development
			Mr Harish Daware	Watershed Development & NRM
			Mr Vincent Darlong	Grant & Tribal Development
10	Joint Review Mission	2nd August - 18th August 2012	Mr Deep Joshi	IFAD Consultant (Team Leader; Livelihoods, Convergence & Rural microfinance)
			Mr. A. M. Alam	IFAD Consultant (Project Management & Partnerships)
			Ms. Judith D'Souza	IFAD ICO (Gender, Knowledge Management)
			Mr. S. Sriram	IFAD ICO (Financial Management & Procurement)
			Mr Vincent Darlong,	IFAD ICO(Grant & Tribal Development).
11	Supervision Mission	23rd August -7th September 2013	Mr Deep Joshi	IFAD Consultant (Team Leader, Livelihoods ,Institutions & Rural microfinanace)
			Mr. A. M Alam	IFAD Consultant (Project Management and Infrastructure)
			Mr. Pratul Dube	IFAD Consultant(Financial Management)
			Ms. Antonella Cordone	IFAD, Rome (Tribal Development)
			Mr. Vincent Darlong	IFAD ICO (Gender,Targeting, KM ,M&E and Grant Activities).
12	Joint Review Mission	10th -22nd November 2014	Mr Deep Joshi	IFAD Consultant (Mission Leader; Livelihoods, NRM and Convergence)
			Ms Saleela Patkar	IFAD Consultant (Community Institutions,Rural Finance, Gender & Targeting)
			Mr. Kajal Chakraborty	IFAD Consultant (Financial Management & Procurement)
			Mr. Karan Sehgal	IFAD, Rome
			Mrs. Meera Mishra	IFAD, ICO

	Mission Type	Dates	Mission Member	Specialisation
13	Supervision Mission	15th-28th November 2015	Mr Deep Joshi,	IFAD Consultant (Mission Leader; Livelihoods, NRM and Convergence)
			Mr. A. M Alam	IFAD Consultant (Project Management, Development Initiatives Fund and Rural Infrastructure)
			Ms Saleela Patkar	IFAD Consultant (Community Institutions, Rural Finance, Gender and Targeting)
			Mr. Kajal Chakraborty	IFAD Consultant (Financial Management & Procurement)
			Mr. Vincent Darlong	IFAD ICO (M&E, KM and Grant Activities).
14	OTELP_ OPELIP Implemenatation Support Mission (ISM)	1st March - 3rd March 2016	Ms. Rasha Omar	Country Programme Manager
			Mr. S. Sriram	IFAD Consultant (Financial Management & Procurement)
			Mr. Vincent Darlong	IFAD ICO (M&E, KM and Grant Activities).
15	Implemenatation Support Mission (ISM) for PCR	17th-28th April 2016	Mr. A. M Alam	IFAD Consultant (Project Management, Development Initiatives Fund and Rural Infrastructure)
			Mr. Vincent Darlong	IFAD ICO (M&E, KM and Grant Activities).
16	PCR validation missions	20th June -4th July 2008	Mr A M Alam	IFAD Consultant (Project Management, Development Initiatives Fund and Rural Infrastructure), Mission leader
			Mr Deep Joshi	IFAD Consultant (Livelihoods, NRM and Convergence)
			Ms Yuka Iries	Professional Associate, FAO (NRM)
			Mr Vincent Darlong	IFAD, ICO, New Delhi (M&E, Targeting, KM, Gender)
			Ms. Rasha Omar	Country Programme Manager

Appendix-6: Summary of amendments to the loan agreement

Date of amendment	Amendments
13 April 2007	Programme implementation phases I, II, & III were amended as below under Section 1.02(b): Phase-I: Effective date and ending at the end of PY 4 Phase-II Programme Year 5 and end of PY 8 and Phase-II Programme Year 9 and end Programme completion Date
	Schedule 3, letter C paragraph 18 amended to read as follows "18. *Phase III Triggers.* Unless otherwise agreed by the Fund, the following specific indicators shall be used, together with the findings of the second Phase Review, to confirm funding for, and the subsequent detailed design of, Phase III of the Programme. (a) the number of landless households in those villages in which the Programme has been operating for more than two years has been reduced by at least 20%; (b) Revenue Survey Teams have surveyed land with slope gradients of between 10° and 30° degrees in no less than 60% of the villages where the Programme has been operating for two years or more and appropriate land titles have been issued in at least 60% of the surveyed villages; (c) VDCs and SHGs in both Phase I and Phase II villages are functioning effectively and at least 80% thereof have been audited in each of the previous two financial years and have shown to have accurate financial records and to have managed Programme funds in an appropriate manner; (d) at least 75% of SHGs established in Phase I and Phase II have fully functional savings and internal lending operations and have provided loans to at least 75% of their members in the previous two years; (e) village volunteers are continuing to provide services to the communities in Phase I villages; (f) Phase I villages have developed effective linkages with service providers and are furthering their development by accessing resources from other government programmes and financial institutions; (g) rural infrastructure works undertaken in Phase I are being effectively maintained; and (h) policy issues relating to tribal communities have been investigated and have officially been brought to the attention of the Government of Orissa and actions have been taken to institute the necessary reforms."
27 January 2014 (at the time of Additional financing)	Section 2.05: Service charge and interest rate. (a) The Borrower shall pay to the Fund a service charge at the rate of 0.75% per annum on the amounts of the Loan and Additional Loan outstanding from time to time, payable semi-annually on each 15 April and 15 October in the Loan Service Payment Currency
	A new Section 3.05 (Availability of Additional Resources) (b) BIS in Article II is added and shall read as follows: (b bis) The scaling up of the Programme through the additional loan will be financed as well by a contribution of USD 7.99 million from the Government of Odisha; USD 2.55 from convergence with other State Government programmes; and USD 0.258 from beneficiaries. Sections 6.01, 6.02 and 6.04: The term Loan Account shall be replaced by "Loan Account and Additional Loan Account"

Allocation and withdrawal of Loan Proceeds both for Loan Amount and Additional Loan Amount[1]

SCHEDULE 2

Allocation and Withdrawal of Loan Proceeds

1. *Allocation of Loan Proceeds.* The Table below sets forth the Categories of Eligible Expenditures to be financed by the Loan and Additional Loan, the allocation of the amounts of the Loan and Additional Loan to each Category and the percentages of expenditures for items to be financed in each Category:

Category		Loan Amount Allocated (Expressed in SDR)	Additional Loan Amount Allocated (Expressed in SDR)	% of Eligible Expenditures to be Financed
I.	Vehicles, Equipment and Materials	670 000		100% net of taxes or 90%
II.	Technical Assistance, contractual services, studies and training	2 920 000		100% net of taxes or 95%
III.	Investment Fund	8 510 000		98% net of taxes or 96%
IV.	Grant Fund	330 000		100%
V.	Credit	520 000		100% of amounts disbursed by PMU for Programme Credit Funds for NGOs
VI.	Development Initiatives Fund[1]	900 000	9 900 000	100%
VII.	Salaries and Allowances	1 090 000		85%
VIII.	Other incremental Costs	1 110 000		75%
	TOTAL	**16 050 000**	**9 900 000**	

2. Disbursement methodologies and Statements of Expenditures thresholds remains regulated by the provisions mentioned in the Letter to the Borrower for OTELP Issued on 20 May 2011 and its modification dated 9 April 2013.

3. *Conditions precedent to withdrawal.* The following shall be a condition precedent to the withdrawal of the Additional Loan proceeds: Submission to IFAD of an action plan for the implementation of fiduciary recommendations issued by the latest IFAD mission held in Orissa in the period December 2013-January 2014.

[1] Development Initiative Funds shall be categorized as "Grants and Subsidies" in the new IFAD standardized category descriptions

Appendix-7: Actual project costs

Table 7 A: Financial Performance by Financier

Financier		Disbursement (USD 000)	% disbursed
IFAD Loan	19,996	24,642	123.1%
IFAD Additional financing	15,000	9,217	61.4%
DFID Grant	40,015	13,440	33.6%
WFP Grant	12,317	5,580	45.4%
Government of Odisha	9,567	20,780	217.2%
Beneficiaries	8,884	4,628	52.1%
Total	**105,779**	**78,287**	**74.0%**

Table 7 B: Financial performance by Financier by Component (USD 000)

Component	IFAD loan		DFID grant		WFP grant		GoO		Beneficiaries		Total	
	App	Actual %	App	Actual %	App	Actual %	App	Actual %	App	Actual %	App	Actual %
Capacity building	3,027	117	6,145	39	0		484	526			9,656	87.7
Livelihoods enhancement	13,598	126	27,055	34	12,317	45%	2,298	381	8,884	52%	64,528	70.9
Support to policy initiatives	608	10	1,226	0			91	211			1,924	13.0
DIF	16,545	64	3,138	13			0	0			19,683	81.2
Programme management	1,218	210	2,451	55			5,840	65			9,509	81.0
Food handling	0	0	0	0			854	48			854	47.8
Total	34,996	97%	40,015	34%	12,317	45%	9,567	217%	8,884	52%	105,779	74.0%

Source: PSU, OTELP

Appendix-8: Physical progress tables

	Component Sub-component or outputs	Indicator	Unit	Cumulative Actual	AWPB, or Appraisl Targets	%
A	**Capacity building for empowerment**					
A.1	Capacity building for communities					
	Community mobilisation camps	Number of camps organised	events	5,661	6215	91.1
	Training SHG leaders	Number of SHG leaders trained	events	5,152	5153	100.0
	Training VDC, VLSC UG leaders	Number of persons trainined	events	6,036	7513	80.3
	Beneficiary skill upgrading	Number of events organised	events	1,684	2142	78.6
	Exposure visits for improved practices	Number of exposure visits organised	events	2,952	2652	111.3
	Exposure visits for livestock practices	Number of visits organised	events	1,472	1253	117.5
	Training in preparation of business plans	Number of persons trainined	events	1,701	1523	111.7
	Vocational training to youth	Number of rural youths trained	persons	320	417	76.7
A.2	Capacity building for support agencies					
	Training FNGO staff	Number of FNGO staff trained	events	389	415	93.7
	Training on community mobilisation	FNGO staff trained in community mobili	events	410	517	79.3
	Training line department staff	Number of line department staff trained	events	198	223	88.8
B	**Livelihoods enhancement**					
B.1	Land and water management					
	Micro-watershed treated (MWS)	Total area covered under micro-watershed	ha	175,368	175368	100.0
	Arable area treated	Fallow lands converted to arable lands	ha	13,420	34536	38.9
	# of check dams constructed	Checkdams constructed within MWS	#	969	1051	92.2
	# of WHS constructed	WHS constructed within MWS	#	698	721	96.8
	# of irrigation wells constructed	Irrigation wells constructed within MWS	#	1,196	1247	95.9
	# of LI pumps installed	Number of LI schemes within MWS	#	664	1042	63.7
	# of percolation ponds constrcuted	Number of percolation ponds within MWS	#	184	214	86.0
B.2	Production system enhancement					
	# of crop demonstrations conducted			during 2015-16		
	inter-cropping	Number of farmers participated	# of farmers	6,755	7035	96.0
	sequence cropping	Number of farmers participated	# of farmers	12,560	17169	73.2
	crop diversification	Number of farmers participated	# of farmers	5,928	6132	96.7
	ragi development	Number of farmers participated	# of farmers	2,639	3532	74.7
	hybrid maize	Number of farmers participated	# of farmers	7,107	7532	94.4
	rice intensification	Number of farmers participated	# of farmers	6,660	7102	93.8
	pulses cultivation	Number of farmers participated	# of farmers	2,324	2739	84.8
	oilseeds cultivation	Number of farmers participated	# of farmers	820	835	98.2
	vegetable cultivation demonstrations	Number of farmers participated	# of farmers	29,068	35711	81.4
	# of poly-houses installed	Number of poly-houses constructed	#	69	69	100.0
B.3	Horticulture (wadi) development					
	Area planted	total area planted under wadi models	ha	2,954	3761	78.5
	No of wadi plots	Number of participating households	# hh	7,702	8735	88.2
	Average size of area planted	size of average land/wadi plot	ha/hh	0.46	0.46	100.0
	Afforestation					
	Regeration of forest plantation	total area planted by the community	ha	2,492	3751	66.4
	Horticulture plantation	total area planted under horticulture	ha	2,216	2216	100.0
B.3	Livestock & aquaculture					
	Number of goat-sheds constructed	Number of households participated	#	5,819	5819	100.0
	Number of broiler units provided	Number of households participated	#	880	971	90.6
	Number of mother chick units	Number of units provided	#	93	93	100.0
	Number of backyard poultry units	Number of households participated	#	3,628	3628	100.0
	Number of fishponds constructed	Number of fish ponds constructed	#	547	671	81.5
	Average area/fishpond	average size of a pond	m2	1,500	1500	100.0
B.4	Rural financial services					
	Number of SHGs organised	Total # of SHGs organised	#	4,273	4681	91.3
	Number of SHGs members	Total # of members of SHGs	members	51,276	56180	91.3
	Number of SHGs received RF	Total # of SHGs received revolving fund	#	2,153	2377	90.6
	Number of SHGs linked to banks	Total # of SHGs linked to banks	#	2,382	3871	61.5
	Number of SHGs linked to OLM	SHGs linked to Odisha livelihoods mission	#	736	736	100.0
	Number of SHG apex federations	Apex federations of SHG formed	#	20	30	66.7

	Component Sub-component or outputs	Indicator	Unit	Cumulative Actual	AWPB, or Appraisl Targets	%
B.5	Community & Development initiative funds					
	Agriculture & irrigation					
	Pumpsets supplied	Total # of irrigation pupsets provided	#	1,167	1277	91.4
	Drip irrigation units supported	Total # of drip irrigation units	#	983	1112	88.4
	Construction of earthen canals	Total # of canals constructed	#	488	514	94.9
	Construction of earthen checkdams	Total # of checkdams constructed	#	7	15	46.7
	Diversion-based irrigation	Total # of DBI constructed	#	366	467	78.4
	Hydrams	Number of units installed	#	29	29	100.0
	Lift irrigation schemes	Number of units installed	#	666	1042	63.9
	Drying yards	Number of units installed	#	402	521	77.2
	Kitchen gardens	Number of households participated	hh	6,575	9877	66.6
	Farm equipment	Number of households participated	hh	4,113	5732	71.8
	Storage go-downs	Number of units constructed	#	752	1042	72.2
	Nutritional gardens, schools	Number of schools covered	#	351	471	74.5
	Threshing platforms	Number of units constructed	#	177	211	83.9
	Market yards	Number of units constructed	#	18	30	60.0
	Grain storage bins	Number of units and households covered	#	7,932	8971	88.4
	Vermi-compost	Number of units installed	#	558	611	91.3
	Trellis for vegetable cultivation	Number of units supported	#	1,090	1137	95.9
	Commercial vegetable cultivation	Total area covered under vegetables	ha	549	645	85.1
	WADI model plantation	Area covered under wadi models	ha	2,954	3761	78.5
	Livestock					
	Animal-shed	Number of cattle-sheds constructed	#	74	183	40.4
	Backyard poultry	Number of households participated	hh	3,628	3,628	100.0
	Broiler units	Number of units supported	#	880	880	100.0
	Goatery units	Number of units supported	#	5,819	5,819	100.0
	Supply of bucks	Number of units supported	#	1,163	1163	100.0
	Mother chick unit	Number of units supported	#	93	93	100.0
	Soil conservation works					
	Gully control structures	# of structres constructed in MWS area	#	80,715	81,787	98.7
	Masonry drop structures	# of structres constructed in MWS area	#	981	1235	79.4
	Retaining wall/ Guard walls	# of structres constructed in MWS area	#	384	451	85.1
	Domestic water supply					
	Tube-well platforms	Number of platforms provided	#	223	223	100.0
	Piped drinking water supply	Number of schemes supported	#	910	910	100.0
	Water filters supplied	Number of water filters supplied	#	10,386	10,387	100.0
	Water storage tanks	Number of WST constructed	#	46	46	100.0
	Open-wells	Number of open-wells constructed	#	1,299	1,335	97.3
	Village sanitation					
	Bathing ghats, river steps	Number of units constructed	#	54	67	80.6
	Toilets & bathrooms	Number of units constructed	#	14,143	14143	100.0
	Village drains	Number of units constructed	#	241	241	100.0
	Villages covered under total sanitation	Number of units constructed	#	210	352	59.7
	Smokeless chulas	Number of households participated	hh	10,765	10,765	100.0
	Solar street lights	Number of units installed	#	140	140	100.0
	IGA					
	Work-sheds	Number of work-sheds constructed	#	77	78	98.7
	SHG units	Number of IGA units to SHGs	#	1,755	1857	94.5
	Individual units	Number of IGA units to individuals	#	1,671	2142	78.0
	Support to the vulnerable households	support provided for economic activities	hh	12,485	12485	100.0
C	**Support to Policy initiatives**					
	Households allotted homestead land	Landless households allotted land	hh	15,620	27000	57.9
	Households allotted farm land	Landless households allotted farm land	hh	2,006	2979	67.3
	CFR applications from the community	Applications for community forest rights	community	447	547	81.7
	CFR titles provided to community	Applications for community forest rights	community	74	547	13.5
	# hh settled under OGLS	Under Odisha Govt. Land Settlement Act.	hh	2,905	2905	100.0
	# hh settled under OPLE	Under Odisha Prevention of Land Encrochm	hh	9,773	9773	100.0
	# hh settled under Vasundhara	Under Vasundhara	hh	3,515	3515	100.0
	# hh under MJMD	Under "my land my …" of GoO scheme	hh	638	638	100.0
	# hh under FRA	Under Forest Rights Act of GOI	hh	8,611	8611	100.0
	# hh under Regulation-2	Under Regulation -2	hh	596	596	100.0

	Component Sub-component or outputs	Indicator	Unit	Cumulative Actual	AWPB, or Appraisl Targets	%
D	**DIF under the TOP UP financing**					
D.1	**Support for ultra-poor**					
	Skill-based economic activities		hh			
	Special support to physically-challenged	Including ultra-poor households	hh	232	200	116.0
	Supply of low cost housing materials	supply of roofing materials	hh	1,236	200	618.0
D.2	**Small-scale irrigation development**					
	Diversion-based irrigation	constrcution of DBI schemes	#	292	150	194.7
	Small-scale lift irrigation	Units supplied to existing water resources	#	236	500	47.2
	Hydraulic rams	units supplied to communities	#	5	100	5.0
	Water-lifting devices, treadle, & pumps	Units supplied to existing water resources	#	2,922	500	584.4
D.3	**Livelihood interventions**					
	Improved poultry units	Improving existing units	hh	482	2,000	24.1
	Improved goat rearing units	Improving existing units	hh	3,562	3,000	118.7
	Commercial vegetable cultivation	improved cultivation of vegetables	hh	2044	3,000	68.1
	Commercial vegetable cultivation	Support commercial vegetable cultivation	ha	549	549	100.0
	IGA for trainined youth	such as small trade, services, shops etc	hh	581	1,000	58.1
	Community cattle-sheds	provided to community	#	3	13	23.1
	Improved hh level cattle-sheds	provided to individual households	#	371	625	59.4
	Support for agro-processing units	cereal and pulses processing units	hh	144	251	57.4
	Support for rural artisans	various crafts of rural artisans	hh	514	514	100.0
	Micro-enterprises	Such as grocery, tailoring, sales etc	hh	264	332	79.5
	Vending agri products	Vending agri produce	hh	793	1,748	45.4
	Support for small-scale trading	individual households	hh	14	17	82.4
D.4	**Habitation improvement & sanitation**					
	Household level sanitation facilities	provided to individual households	hh	3,919	10,000	39.2
	Habitation level sanitation facilities	provided to community	hh	142	140	101.4
	Village waste disposal systems	village level sanitation system	#	43	73	58.9
	Low cost individual water filters	provided to individual households	hh	9,388	9,748	96.3
	Low cost water filters, community level	provided to schools etc	#	95	95	100.0
D.5	**Drudgery reducing interventions**					
	Smokeless chulla	provided to individual households	hh	7,812	7,906	98.8
	Smokeless chulla, institutional	provided to schools etc	#	72	72	100.0

Appendix-9: RIMS Data as at PCR

FIRST LEVEL RESULTS

Results		Unit	Period ending: AWP&B	31-Dec Actual	% of AWPB	Cumulative Appraisal	Actual	% of Appraisal	Sum
Total Outreach									
Persons receiving project servic	Households receiving project services	Number	56,180	56,131	100%	56,180	56,180	100%	
	Communities receiving project services	Number	2,379	2,134	90%				
	People receiving project services	Male	127,979	117,376	92%	127,979	117,376	92%	
	People receiving project services	Female	127,682	112,731	88%	127,682	112,731	88%	

Component	Sub Component		Period ending: AWP&B	31-Dec Actual	% of AWPB	Cumulative Appraisal	Actual	% of Appraisal	sum of
Component	**Sub Component Name**								
Capacity Building for Empowerment	Community Empowerment & Management								
	Staff of service providers trained	Number	47	49	104%			#DIV/0!	
		Male	199	179	90%			#DIV/0!	
		Female	314	307	98%			#DIV/0!	
	People trained in community management topics	Number	1,042	946	91%	340	358	105%	
		Male	16,464	11,689	71%			#DIV/0!	
		Female	6,044	5,379	89%			#DIV/0!	
	People trained in natural resources management	Number	15	18	120%			#DIV/0!	
		Male	159	163	103%	540	14,903	2760%	
		Female	141	179	127%	540	9,769	1809%	
	Community groups formed/strengthened	Number	358	358	100%			#DIV/0!	
					#DIV/0!			#DIV/0!	
	Beneficiary Skil Upgradation				#DIV/0!			#DIV/0!	
	People trained in crop production and technologies	Number	45	56	124%			#DIV/0!	
		Male	684	741	108%	2,700	15,629	579%	
		Female	216	217	100%	2,700	11,384	422%	
	People trained in livestock production and technologies	Number	35	21	60%			#DIV/0!	
		Male	26	24	91%			#DIV/0!	
		Female	509	476	93%			#DIV/0!	
	People trained in income generating activities	Number	4	6	150%			#DIV/0!	
		Male	12	12	100%			#DIV/0!	
		Female	80	87	109%			#DIV/0!	
	Community workers and volunteers trained	Number	114	53	46%			#DIV/0!	
		Male	1290	1187	92%			#DIV/0!	
		Female	980	793	81%			#DIV/0!	
	People receiving vocational training	Number	3	1	33%			#DIV/0!	
		Male	2	2	100%			#DIV/0!	
		Female	1	1	100%			#DIV/0!	
	Training to support agencies								
	Government officials and staff trained	Number	6	2	33%			#DIV/0!	
		Male	n/a	32	#VALUE!			#DIV/0!	
		Female	n/a	8	#VALUE!			#DIV/0!	

Component	Sub Component		Period ending: AWP&B	31-Dec Actual	% of AWPB	Cumulative Appraisal	Actual	% of Appraisal	sum of
Component	**Sub Component Name**								
Livelihoods Enhancement	Land & Water Management	Land under irrigation schemes constructed/rehabilitated	Number	1	1	100%			#DIV/0!	
		Land under irrigation schemes constructed/rehabilitated	Ha	1	1	100%			#DIV/0!	
		Drinking water systems constructed/rehabilitated	Number	225	104	46%			#DIV/0!	
		Rainwater harvesting system constructed/rehabilitated	Ha	365	140	38%			#DIV/0!	
		Rainwater harvesting system constructed/rehabilitated	Number	146	56	38%			#DIV/0!	
		Land under improved management practices	Ha	3,585	1,660	46%			#DIV/0!	
		Land under irrigation schemes constructed/rehabilitated	Number	1,434	664	46%			#DIV/0!	
						#DIV/0!			#DIV/0!	
	Agriculture & Horticulture Development					#DIV/0!			#DIV/0!	
						#DIV/0!			#DIV/0!	
		People trained in crop production and technologies	Number	45	56	124%			#DIV/0!	
			Male	n/a	741	#VALUE!			#DIV/0!	
			Female	n/a	217	#VALUE!			#DIV/0!	
	Livestock & Acquaculture Development									
		People in crop/ livestock production groups formed/ strengthened	Number	2,116	694	33%			#DIV/0!	
			Male	n/a	601	#VALUE!			#DIV/0!	
			Female	n/a	93	#VALUE!			#DIV/0!	
		Fish pond constructed/rehabilitated	Number	4	4	100%			#DIV/0!	
		People trained in livestock production and technologies	Number	2,116	3,949	187%			#DIV/0!	
			Male	709	601	85%	2,700	4,189	155%	
			Female	105	93	89%	2,700	3,879	144%	
						#DIV/0!			#DIV/0!	

Component	Sub Component			Period ending:	31-Dec		Cumulative		
Component	Sub Component Name			AWP&B	Actual	% of AWPB	Appraisal	Actual	% of Appraisal
	Rural Financial Services	Saving and credit groups formed/strengthened	Number	4,273	4,273	100%	2,160	4,273	198%
			Male	n/a	437	#VALUE!			#DIV/0!
			Female	n/a	3,836	#VALUE!			#DIV/0!
		Saving and credit groups with women in leadership position	Number	4,273	4,273	100%			#DIV/0!
		Value of voluntary savings	USD	100,680	75,000	74%	n/a	1,151,796	#VALUE!
		Active borrowers (disaggregated by gender)	Number	46,152	42,306	92%			#DIV/0!
			Male	n/a	387	#VALUE!	n/a	657	#VALUE!
			Female	n/a	41,919	#VALUE!	n/a	63,164	#VALUE!
		Value of gross loan portfolio	USD	n/a	84,000	#VALUE!	n/a	9,196,595	#VALUE!
		Apex organisations formed/strengthened	Number	358	358	100%			#DIV/0!
						#DIV/0!			#DIV/0!
CIF & DIF	CIF & DIF	Storage facilities constructed/rehabilitated	Number	0	0	#DIV/0!			#DIV/0!
		Groups managing social infrastructure formed/ strengthened	Number	0	0	#DIV/0!			#DIV/0!
			Male	n/a		#VALUE!			
			Female	n/a		#VALUE!			#DIV/0!
	Participatory Forest Management								
		Natural resources management groups formed/strengthened	Number	74	74	100%			#DIV/0!
			Male	n/a	3,330	#VALUE!	720	11,459	1592%
			Female	n/a	0	#VALUE!	720	4,874	677%
						#DIV/0!			#DIV/0!

SECOND LEVEL RESULTS

Component	Sub Component	Results	Rating
Component name	Sub component name		
Livelihoods Enhancement	Land & Water Management	Effectiveness of productive infrastructure - Irrigation schemes	5
		Effectiveness of productive infrastructure - Rainwater harvesting systems	5
		Likelihood of sustainability of productive infrastructure - Irrigation schemes	5
		Likelihood of sustainability of productive infrastructure - Rainwater harvesting systems	5
		Likelihood of sustainability of water availability and water use efficiency measures	5
		Effectiveness of social infrastructure - Drinking water systems	6
	Agriculture & Horticulture	Effectiveness of improved land management practices and technologies	5
		Likelihood of sustainability of improved land management practices and technologies	5
		Effectiveness: improved performance of service providers	5
		Effectiveness: producers benefiting from improved access to markets	4
		Effectiveness: creation of employment opportunities	5
	Livestock & Acquaculture Development	Effectiveness of productive infrastructure - Livestock water points	5
		Effectiveness of productive infrastructure - Fish ponds	5
		Likelihood of sustainability of productive infrastructure - Livestock water points	5
		Effectiveness: improved agricultural, livestock and fishery production	5
	Rural Financial Services	Likelihood of sustainability of saving and credit groups formed/strengthened	5
		Effectiveness: improved access of the poor to financial services	5
		Sustainability: improved performance of financial institutions	5
		Likelihood of sustainability of apex organisations formed/strengthened	5
CIF & DIF	Community infrastructure	Likelihood of sustainability of storage facilities	5
		Likelihood of sustainabiity of groups managing social infrastructure formed/ strengthened	5
		Effectiveness of social infrastructure - Drinking water systems	6

THIRD LEVEL RESULTS

Indicator	Unit	Benchmark	Mid-term	Completion	Target
Households with improvement in household assets ownership index	Number	56,180		100%	
Underweight children - weight for age	%		52	52	
Chronic malnourished children - height for age	%		46	46	
Acute malnurished children - weight for height	%		45	45	

Appendix-10: Project internal rate of return

A. Introduction

The OTELP programme commenced implementation in 2003/04 and completed it in March 2016. The implementation was carried out in three Phases and covered a total area of 175 370 ha scattered in 358 micro-watersheds benefitting 56 180 households comprising 42 200 ST, 8 070 SC and 5 910 from other communities. These also included 12 400 landless households. With the implementation of OTELP, there have since been significant changes in land uses and production patterns: the gross cropped area increased from 52 100 ha at baseline to about 77 470 ha at project completion, irrigated area (potential) increased from 3 390 ha to 19 635 ha, area under plantation and fruit crops increased from 1 290 ha to 6 020 ha and the fallow land decreased from 13 040 ha to 1 790 ha. The economic and financial analysis examines these and other such significant changes, results and impact. The EFA is being attempted without any "Impact Assessment Study" at Completion and there is, therefore room for errors in estimates and judgement.

B. Financial Analysis

(i) Assumptions

- The participating households responded to the introduction of new packages of practices, new crop varieties and cultivation techniques but in a much slower pace than anticipated at Appraisal.
- They were willing to organise themselves in to viable community institutions such as VDA, VDC, SHGs and their federations through training and capacity building and participated effectively in programme implementation and they also organised into user groups for operations and maintenance of the facilities created under OTELP.
- In all 56 180 Tribal and other poor households received the OTELP benefits. Land productivity has been improved through appropriate land treatment packages such as field bunds and other soil and water conservation measures.
- Most villages have perennial or seasonal streams that were tapped for irrigation through the construction of check dams, diversion-based irrigation, water harvesting structures, small lift-irrigation works, percolation tanks, etc. These works have substantially increased the overall irrigation potential of the programme area.
- Crop productivity improved through adoption of line-sowing, use of quality of seeds, weeding, mulching, use of improved farm tools and implements, which were demonstrated to the participating households.
- By improving the market information systems and other attendant facilities the participating households were able to realise increased margins for their farm produce.
- The programme area households tend small ruminants and poultry birds but on a very restricted scale and these are up-scaled with the support of supply of quality breed and chicks and appropriate para-vet services thereby reducing the mortality rates.

Productivity increases under rain-fed conditions are at levels ranging between 25% and 35% as

- these increases are achieved due to in situ soil and moisture conservation practices, improved cultivation practices and use of quality seeds.

- Benefits accrued in the year following when facilities were installed, provided or created.

- For the purposes of O&M of various infrastructure facilities, a 5 person-day labour per household per year has been assumed and accounted for in the analysis but actual field conditions might vary.

- An average wage rate of INR 200/personday for both male and female labour has been assumed although the farm-wages are lower than this rate;

- A wage rate of INR 200/day has been assumed for proxy labour under without project situation for such new interventions as vegetable cultivation, fish ponds, livestock activities, IGA and enterprises, etc.

(ii) Household or Farm Models

Using budgets from a range of crops and income generating activities, 5 farm models and 4 activity models were prepared to broadly illustrate the OTELP's "expected impacts" on the incomes, and use of household labour adopting and/or adapting both on-farm and non-farm. These are summarised below:

Dry-land crops[53] model: This model is developed based on an area of 1.04 ha per household, primarily with rain-fed crops such as paddy (0.24 ha), millets (0.17ha), maize (0.07 ha), millet (0.22ha), oilseeds (0.07 ha), root-crops (0.034 ha) and pulses (0.11 ha) such as black gram, cow pea, sesame, horse gram, etc. are inter-cropped. These crops are already being cultivated but productivity enhancements are achieved through timely sowing, line-sowing, weeding and use of quality seeds. Average cropping intensity increased from 101% at baseline to 118% at completion.

Irrigated farm[54] model: Irrigation facilities created an incremental potential area of 19 635 ha. Average area under irrigation is increased from 0.085 ha to 0.5 ha/household during the main crop season. Major crops included paddy (0.43 ha) and maize (0.19 ha), millets (0.02 ha), onion (0.05 ha) pulses (0.17 ha), vegetables (0.27 ha) and spices (0.013 ha), root crops (0.11 ha), oilseeds (0.1 ha) etc. Vegetables crops included cucumber, okra, tomato, onion etc. Spices crop included turmeric and ginger. Cropping intensity increases from 123% at baseline to 265% at Completion.

Wadi farm model: Each wadi horticulture model has a diverse variety of fruit crops such as mango (0.20 ha) and cashew (0.20 ha). A household model covers an area of 0.4 ha and crop distribution has been assumed based on field conditions. Each mango wadi plot has 30 plants and the cashew 14 plants. These were raised under rain-fed conditions except applying life-saving watering in the initial stages of growth.

Backyard poultry model: Each model has a 10 bird-unit with facilities for shelter, equipment, feed supply at 50 gm per bird, medicine and technical support. Each beneficiary takes at

[53]Crop yields are based on data provided by PSU, OTELP.

[54]Crop distribution and cropping patterns are based on the data provided by PSU, OTELP

least 5 batches during a year with a mortality rate at 5%. In all 3 630 households were covered under the programme.

Goat-keeping model: This is a 5 does and one buck model. This includes construction of goat shed, supply of does and buck, equipment and providing insurance coverage, feed, etc. to the participating household. See Annex-26. In all 5 820 households participated.

Fish pond activity model: Average size of a fish pond is 1 500 m2 and it is owned and operated by a group, preferably the landless. According to MIS data, each year the group stocked 1 000 fingerlings and harvested 120 kg of fish for selling at INR 120/kg. A fingerling grows to weights ranging between 150 and 170 gm in ten month period. Common and China carps are the main species. A group spends about INR 4 500 for harvesting. From the data, it appears that fish ponds are not properly managed as seen from the production levels. In all 547 fish ponds are operated by these groups and the number of households involved could be around 6 560.

IGA and enterprises model: Very few households have taken up these activities. In all 210 households participated in this model. Setting up of 148 grocery shops and installation of 65 processing units for milling paddy and flour and processing of tamarind and cashew are key interventions. Support to NTFP was also included.

Drudgery reducing benefits model: This model is built on notional benefits; and assumes that the participating households benefit from the drudgery reducing interventions of OTELP such as (i) saving of fuel wood at 5 kg per day per household through the use of smokeless wood-stoves, (ii) 36 labour-days saved per household per year due to closeness to domestic water supply, labour saved in hauling and milling, reduced time-spent in fuel-wood collection, etc. and a labour-day notionally valued at INR 200 per day and (iii) increased availability of fuel-wood (at 25 bundles per year per household valued at INR 1 000) due to conservation measures adopted at the respective fuel-wood reserves.

The interventions such as backyard poultry, goat-farming, IGA, etc. were introduced in Third Phase and these needed more support and handholding for improving their efficiencies. Financial efficiency measures of household and area models are presented in Table-1 below and budget details in Annex-22 to 30.

Table-1: Financial Efficiency measures of household or area models

Farm/ Activity Model	Gross Income (INR)	Input Cost (INR)	Labour (INR)	BCR (ratio)	FIRR (%)	NPV at 12% (INR)
Dryland agriculture	65 146	13 109	30 540	1.77	-	147 550
Irrigated crops	198 653	20 479	54 445	2.73	-	942 500
Wadi plantation	92 400	1606	4 840	6.03	50	254 640
Backyard poultry	14 400	5 500	10 000	0.5	-	-50 650
Goat-keeping	72 000	4 972	36 000	0.76	4	80 043
Fish pond	14 400	4 150	4 800	1.0	25	4 463
IGA	17 000	3 500	9 000	0.54	-	-41 877
Micro-enterprises	125 000	90 000	-	-	-	899 330
Processing units	51 730	32 550	-	-	-	371 425
Drudgery reducing	4 705	-	-	-	-	35 143

(iii) Sub-project Models

Area, farm and activity models were grouped and aggregated into sub-project models in order to estimate the overall project performance indicators. These models are briefly described below and their respective budgets in Annex-8 to 18.

Dry-land agriculture subproject: This subproject model includes 43 780 dryland crop development households participating in phased manner over a 9 year period starting in PY 5 and ending in PY 13. Productivity increases are achieved through enhanced soil moisture regime and adoption of improved agronomic practices. Financial and economic budgets of this model are presented in Annex-8 and 9.

Irrigated agriculture subproject: This subproject model includes some 26 720 households and all of these are also dryland households. This subproject was created to get the aggregate of irrigation impact in the programme area. These households have been participating right from fiscal 2007/08 and until the project completion. Aggregate of Financial and economic budgets of this model are presented in Annex-10 and 11.

Horticulture wadi subproject: This subproject covers some 7 700 households starting from the year 2006/07 and has been building evenly since then, except in year 2013/14 when more than 1 800 households were added. This model reaches full development stage in year 7 or 8 although they start yielding in year 4. This model covered some 3 390 ha involving 7 700 households and used existing podu land or fallow land for planting. Aggregate of financial and economic budgets of this model are presented in Annex-12 and 13.

Livestock subproject: This model covers some 9 450 households comprising 3 630 backyard poultry households and 5 820 goat sheds and goat keeping households. Support to backyard poultry activity commenced in year 2011/12 and ended in 2014/15. The goat keeping activity commenced in year 2012/13 and continued till project completion. The landless households were particularly targeted.

Fish ponds subproject: Support to this activity started in 2008/09 and continued till 2013/14 and in all 547 ponds were constructed and handed over to the groups, mostly the women and the landless. From MIS data it appears that this activity was not supported effectively with required inputs and technical support. As a result, the overall productivity has been very low. It may be assumed that over 6 500 households, including the landless were involved in this activity.

IGA and enterprises subprojects: About 210 households are covered over the project implementation period as this activity started only in year 2013/14. Enterprises included setting up of 148 grocery shops for individual households, 65 processing units for milling paddy, flour, tamarind and cashew processing. Some households also involved in the collection of NTFP product and making of brooms from hill grasses. This activity was targeted at the landless households.

Drudgery reduction benefits subproject: Improvement of rural water supply, supply of

smokeless wood-stoves, milling and hauling facilities etc reduce overall drudgery of the tribal and other beneficiaries, in particular their women. In all 50 217 households were covered. This is a model based on notional benefits.

Results of analysis of these seven subprojects in terms of household incomes, production costs, labour and input etc are summarised in Table 5 below and details in Annex-8 to 21. From the results, it is evident that household labour forms a substantial part of gross incomes and makes good the negative financial efficiency measures in the case of livestock, fish ponds and IGA subprojects as seen from Table 2 below.

Table 2: Summary Results of Subproject (Financial) Models: INR per household 1/

	Gross income (INR)	Purchased inputs (INR)	Labour (INR)	Net income (INR)	Adoption rate assumed in EFA %
Dryland crops subproject	65 145	13 110	30 540	21 495	80%
Irrigated crops subproject	198 650	20 450	54 440	123 730	60%
Wadi horticulture subproject	92 400	1 600	4 840	85 960	70%
Livestock subproject	49 890	5 180	26 020	18 690	70%
Fish ponds subproject	1 200	345	745	110	70%
IGA & enterprises subproject	116 210	82 330	-	33 880	70%

1/ At full development stage and assuming all labour requirements met by households themselves.

C. Economic analysis

(i) Assumptions

- A twenty year analysis period has been assumed, which included a 13 year project investment period.
- Agricultural goods move freely within the project area in response to market signals.
- All agricultural inputs and outputs that are traded are valued at prices as of March/April 2016. These have been adjusted to allow for transport and marketing costs to give an economic export parity value at farm gate.
- Economic investment costs are net of taxes and price contingencies, credit, etc. All costs directly associated with the incremental production are included in full, including incremental farm inputs and family labour.
- Investment costs were adjusted to current prices of March/April 2016 and WFP food assistance was also monetised using the current commodity prices
- A standard conversion factor (SCF) of 0.85 is applied to both traded and non-traded items for adjusting financial prices.
- The average financial rural wage rate is taken to be the best estimate of the economic value of labour .
- The analysis includes only on-farm benefits and including attributable benefits from

soil and water conservation, irrigated agriculture, horticulture and spices cultivation and benefits from the livestock farms including the notional benefits from the drudgery reduction;

- All costs and benefits are relating to investments made on targeted project area households and the resultants benefits;
- No significant changes or shifts in cropping patters are assumed but the key assumptions have been adoption of appropriate agronomic practices including inter-cropping, crop rotation, conservation farming, etc. and these reflect in cultivation of off-season vegetables, spices, fruit crops;
- The analysis employs an Opportunity Cost of Capital (OCC) at 10%, which is the current long-term bond rate in India.

(ii) Costs - Benefits Streams and Analysis

The project economic costs were calculated from the financial project investment costs after having made adjustments for taxes and inflation. Recurrent costs for continued operations and maintenance have been included. Economic prices for inputs and output models were estimated by applying the conversion factors on the financial prices. Commodity prices were collected and compiled by the PSU, OTELP with the support of the respective ITDAs.

Production Benefits: The farm productions are direct output from the respective models, which were based on the respective production models. About 43 780 households in receipt of NRM and improved agriculture and farming practices achieve productivity increases ranging from 25 to 60% due to enhanced soil-moisture, use of better seeds, soil and water conservation practices, capacity building, enhanced irrigation facilities provided, etc. Considerable number of these households also receives facilities of vegetable production and spices cultivation and wadi orchard development (7 700 households). Landless households were targeted and supported through livestock-based interventions (9 450 households for both backyard poultry and goat-keeping), 6 560 households under pond fishery and some 210 households with IGA-based interventions. Under drudgery reducing interventions, about 50 217 households are benefited.

Environmental benefits: Environmentally-related aspects of the project are its integrated natural resources management including land treatment to agricultural development, a focus on community-based village development and the encouragement of alternative income generating opportunities for the poor. All these interventions yield substantial environmental benefits that have not been quantified in the economic analysis, for the following reasons: (i) farmers have not perceived degradation of their lands as a result of declining soil fertility and soil erosion and thus underestimate the potential benefits of soil and water conservation measures over the longer terms; and (ii) communities, lacking assured property rights over forests that they access for fuel and fodder, may not regulate their harvests to ensure sustainable use of the forests, i.e. open access may result in overexploitation. Supply of smokeless wood-stoves improved the overall health of the households and at the same time reduced fuel-wood consumption.

Project Performance Indicators: Cost-benefit analysis yields an overall IRR of 21%. The estimated NPV for a 10% discount rate is INR 3 428 million and the BCR of 1.37. A positive NPV under the current Opportunity Cost of Capital (OCC) of 10% and even at a 25% discounted rate indicates that the project investments are robust.

A comparison of these indicators with those of arrived at Appraisal in 2002 is attempted in the following Table

Table-3 Comparison of Project Performance Indicators

Project performance indicators	At Project Appraisal	At Project Completion
IRR	14%	21%
NPV million INR at 10% discount rate	229	3 428
BCR (ratio)	1.17	
Sensitivity analysis:		
Costs increased by 10%	12%	18%
Benefits declined by 10%	12%	18%
Both costs and benefits change by 10%		14%
Two year delay	11%	15%

A sensitivity analysis of the project is presented in Table 4 below.

Table-4: Sensitivity analysis

Scenario	Base Case	Cost Increases by		Benefits down by	
		20%	25%	20%	25%
IRR	21	15	14	14	11
NPV (million INR)	3 428	1 593	1 135	908	278
BCR	1.37	1.14	1.10	1.10	1.03

If benefits delayed by two years (in effect, if the project's production activities such as backyard poultry, pond fishery, IGAs take longer to become fully developed or established) then the IRR declines to 15%. Under extreme scenario of costs increases by 25% and benefits decline by 25% over the base-case, an IRR of 2% is obtained.

The switching value analysis indicates that the project is capable of sustaining a 27% decline in overall benefits or 37% increases in costs. Likewise, if the development of vegetables as cash crops, spices and wadi plantations were not taken up, the overall IRR declines to a just 4%. Similarly if irrigation potential falls below 50%, the IRR declined to 10%. These signify a delicate balance in crop production patterns that strongly impact on the project performance indicators.

Thus, the key drivers of the economy of the project area are (i) vegetable production for sale with reasonable market access, (ii) irrigated agriculture and sale of surplus production, and (iii) production from wadi plantations. Other sectors like goat-keeping, pond fishery and IGA enterprises need substantial handholding support for improving their efficiency.

D. Benefits and Beneficiaries

Beneficiaries: The programme covered some 56 180 households from 1 042 villages falling under 30 Blocks in 7 IDTA districts of Odisha. These households were targeted for livelihoods enhancement and social development. All households in each village were directly benefited by the project interventions including the vulnerable population and the landless. Number of beneficiary households by subproject and year are shown in Table 5 below.

Table-5: Number of Benefited Households, cumulative

	Project Year a/							
Subproject households a/	1-6	7	8	9	10	11	12	13
Dryland agriculture	7 789	9 494	11 861	20 431	34 379	37 788	39 239	43 779
Irrigated agriculture	4 900	5 927	7 427	13 150	21 097	22 933	23 780	26 723
Wadi plantations	1 336	1 995	2 859	3 979	4 894	6 694	7 266	7 700
Backyard poultry				1 288	2 283	3 588	3 628	3 628
Goat-keeping					485	1 431	4 035	5 284
Pond fishery	113	151	162	337	371	547	547	547
IGA & enterprises			41	60	81	106	163	220
Drudgery reduction				1 798	36 217	44 217	50 217	50 217
Total	7 789	9 494	11 860	20 430	36 217	44 217	56 180	56 180

a/ cumulative by year

Benefits: The immediate benefits from the project are increased productivity-through the introduction of better management practices, improved farming practices. This response is expressed as increased household incomes. On an average, a household's production benefits will increase from 532 kg/household to over 1 283 kg of cereals, pulses and oilseeds. In addition, average household production also includes fruits, vegetables, tubers and spices. Incomes, excluding the value of family labour, increase from INR 1 938 to INR 36 990 at project completion. This would increase to INR 50 530 at full development. In qualitative terms, minimised soil erosion, reduced runoff and increased infiltration, and enhancement of organic contents of the soil are some of the benefits of the OTELP interventions, which have not been quantified. There are substantial increases on demand on family labour from the existing level of 53 person-days per household to some 190 person-days. Incremental labour needs are particularly for agronomic practices and harvesting.

Table-6: Household food production & Incomes at full development stage

	Food production: Kg / hh **a/**		Incomes/hh b/	
Households	Baseline	At Completion	Baseline	At completion
All households	532	1 283	1 938	36 990

a/ includes cereals, pulses and oilseeds only and excludes tuber, fruits, vegetables, spices etc.
b/ Incomes exclude household labour-days; at full development it would be INR 50 530 per household
These incomes are directly attributed to OTELP interventions and do not include "other incomes"

Other benefits: Additional benefits also came from the OTELP's capacity building interventions. First, all participating villages have the benefit and advantages of the services of their VDCs, SHGs and their federations which are capacitated and provided fund support for various social and economic developments. Secondly, women from the poor and very poor groups participated in and managing their social and economic development and have better access to

markets and inputs and marketing their products than before.

Productivity rates: Table provides a comparison of productivity rates of major crops in Odisha state, ITDA district average, results of demonstrations carried out in the OTELP area during 2013-14 and rates applied in EFA in Kg/ha:

Table-7: Comparison of yield of major crops

Crop	State average (kg/ha) a/	OTELP District average (kg/ha) b/	Results of demonstrations (kg/ha) c/	Yield rates applied in EFA (kg/ha)
Paddy	1 820	1 800	2 840	1 500
Wheat	1 575	1 580	-	
Finger millet	800	950	1 600	1 000
Maize		1760	-	
Millets		650	580	
Green gram	352	500	-	
Cowpea		750	710	750
Mustard	270	400	830	
Gram	768	800	-	
Vegetables		10 350/ 15 000	13 500	12 000
Chillies		950	-	
Ginger		8 100	-	7 000
Turmeric		6 500	12 200	6 000
Potato	11 600	17 500	9 650	12 500
Mango	75 100		-	30 000
Cashew				

a/ Source: Odisha Economic Survey, 2014-15;
b/ Source Directorate of Agriculture for the year 2014-15;
c/ Source: PSU, OTELP results of demonstrations carried out in 2013-14 in OTELP districts

E. Risks and sustainability

There were a number of risks associated with OTELP. These were relating to farm technology, reluctance on the part of the farmers to accept the new technology readily, inadequate extension and market linkages and poor price margins, untimely flow of funds, lack of institutional credit, lack of service providers and poor coordination and institutional support and policy risks. These issues and risks were addressed to some extent during the implementation of the programme as described below:

Risks	Risk description	Probability of occurrence	Mitigation measures adopted by OTELP	Had no corrective measures adopted, OTELP performance would have been as below.....
Institutional	Delay in technology transfer/lack of quality planting materials slowing down the uptake rates and production	High to Medium	Extensive training and demonstrations of crop cultivations, livestock, etc were taken up	Benefits lag by 2 years: IRR= 15% NPV= 1632 million

Risks	Risk description	Probability of occurrence	Mitigation measures adopted by OTELP	Had no corrective measures adopted, OTELP performance would have been as below.....
	Weak technical and management capacities of NGOs and VDCs		Competent NGO recruited; VDCs strengthened with additional facilities	BCR= 1.18
	Lack of financial capacity to invest in agriculture and other occupations	High to Medium	SHGs promoted and empowered and linked to banks for further credit supply; and federations were organised	Decline in benefits by 20%: IRR=14% NPV= 908 million BCR= 1.1
Market	Inadequate profit margins due to poor access, lack of transport and of market information	High to medium	Market information strengthened but *this risk continues to exist*	Decline in benefits and increases in cost by 20%: IRR= 6% NPV=-927 million BCR=0.92
	Lack of capacities of tribal farmers to negotiate fair deals with private investors	High to medium	*This risk continues to exist*	
	Lower market prices for commodities	Medium	Diversified production, improved market information, production of off-season vegetables and wadi horticulture eliminated the risk	
Policy	Lack of commitment to investing in the welfare development and slowing down funds flow	Medium	Funds constraints due to DFID and WFP withdrawal were addressed by GoO by enhancing its contributions significantly	Farm operating costs increase by 20%: IRR=15% NPV= 1,593 million BCR=1.14
Others	Remoteness of Tribal villages and difficulty of access during rainy season	High	Promotion of products that combine high margin for small volumes and easy to transport was emphasised and supported	Decline in benefits by 25%: IRR= 11% NPV=278 million BCR=1.03
	Climate change risks of delayed rainfall, abnormal rainfall, etc	Medium	Training farmers on climate change risks and crop diversification	

EFA framework

C. Economic analysis

(i) Assumptions

INDIA - OTELP Project Completion Review

A) Net incremental benefits of Farm and Activity subproject models in 000 INR — FINANCIAL ANALYSIS

	Dryland	Irrigated	Wadi	Livestock	Fishpond	IGA	Drudgery
PY1	0	0	0	0	0	0	0
PY2	-	0	-	-	0	0	0
PY3	0	-	0	0	0	0	0
PY4	-	0	-2,503	-	0	0	0
PY5	0	0	-3,346	0	0	0	0
PY6	45,888	144,130	-4,581	-	0	0	0
PY7	122,217	363,415	3,400	0	-525	0	0
PY8	148,984	439,559	19,134	-	-6	0	0
PY9	186,121	550,809	85,524	0	150	-11	0
PY10	320,586	975,287	161,538	-10,644	-630	-8	5959
PY11	539,419	1,564,662	292,958	-37,663	284	-277	119,262
PY12	592,913	1,700,881	373,035	-84,328	-373	-818	145,610
PY13	615,669	1,763,675	453,808	-194,974	653	-1,177	165,371
PY14	686,902	1,981,971	462,462	-235,167	598	-812	165,371
PY15	686,902	1,981,971	462,462	-184,024	552	-630	165,371
PY16	686,902	1,981,971	462,462	-107,890	552	-630	165,371
PY17	686,902	1,981,971	462,462	-27,333	552	-630	165,371
PY18	[illegible]	[illegible]	[illegible]	[illegible]	552	-630	165,371
PY19	686,902	1,981,971	462,462	51,204	552	-630	165,371
PY20	686,902	1,981,971	462,462	60,167	552	-630	165,371
NPV (INR 000)	1,475,821	4,291,085	853,963	-168,013	334	-1,262	284,438
NPV (USD 000)	22,027.2	64,046.0	12,745.7	-2,507.7	5.0	-18.8	4,245.3
FIRR (@ 12%)							

B) PROJECT COSTS AND INDICATORS FOR LOGFRAME

TOTAL PROJECT COSTS (in million USD)		79.22	Base costs		PMU	7.7
Number of Beneficiaries	56,180 Households	ST 42,200	SC 8,070	Others 5,910	VDCs 358	SHGs 4,273
Cost per beneficiary (IFAD resources)	530 USD/ household				Adoption rates	70%

Components	Cost USD M	Outcomes	Indicators
Capacity building	8.47	4273 SHGs & 358 VDCs organised	90% SHGs and VDCs function effectively
Livelihood enhancement	39.88	Livelihoods and food secuirty improved	99% hh have at least two sources of incomes
Support to Policy initiatives	0.25	Land allottment to landless	15,000 hh allotted houselots & 2006 farm lands
Development Initiatives fund	16.93	56,180 hh use common infrastructure	O&M by viilage communities
Project Management a/	8.11	Implementation as scheduled	Annual progress, RIMS reports produced
Total Project costs b/	79.22		

a/ Including Food handling by GoO; b/ including WFP assistance of USD 5.58 million

C) MAIN ASSUMPTIONS & SHADOW PRICES[1]

FINANCIAL	Output	Incremental value (%)	Price (in INR)	Input prices	Price (INR)
	Crops, rainfed	25-35%	Paddy 21, millet 15/kg	Fertilizer, average, per kg	28
	Crops, irrigated	75 -80%	vegetables 20/kg	Pesticides, average, per lit	300
	Wadi horticulture	100.0%	Mango 25, cashew 120/kg		
	Livestock	34.1%	Do 3000, poultry 300/each	Rural wage rate, pers_day	200
	Fishponds	24.1%	Fish 120/kg		
	IGAs	50.0%	Hill brooms 50/each		

ECONOMIC				
	Official Exchange rate, June	67	Discount rate (opportunity cost of capital)	10.0%
	Shadow Exchange rate b/	96	Long term bond rate	10.0%
	Standard Conversion Factor	1.43	Output conversion factor a/	0.85
	Labour Conversion factor	0.85	Input Conversion factor a/	0.85

[1] All prices expressed in INR Currency.

a/ estimated from data generated from farmod
b/ arrived at using export and import values* OER

D) BENEFICIARIES, PHASING BY INTERVENTION AND ADOPTION RATES

Project year → Interventions	PY1 to PY 6	PY 7	PY8	PY9	PY10	PY11	PY12	PY13	Adoption rates
Dryland agriculture households (rainfed crops like paddy, millets, pulses etc)	6,187	7,542	9,422	16,229	27,307	30,015	31,167	34,773	80%
Irrigated agriculture households (paddy, maize, vegetables, spices, pulses etc)	2,940	3,556	4,456	7,890	12,658	13,760	14,268	16,034	60%
Wadi horticulture households (Mango and cashew plantations)	1,396	2,001	2,786	3,425	4,685	5,085	5,390	5,390	70%
Livestock households (Backyard poultry, goats)	0	0	0	902	1,957	3,512	5,363	6,612	70%
Fish ponds # of ponds (xxx households total)	0	79	106	114	236	259	381	381	70%
IGA households (NTFP etc)	0	0	0	1	1	26	83	140	70%
Drudgery reducing households (watersupply, wood stoves,infrastructure, processing e	0	0	0	0	1,258	25,348	30,948	35,148	100%
Total # of beneficiaries (adopted hh)	6,187	7,542	9,422	16,229	27,307	30,015	31,167	34,773	

More than 70% of beneficiaries are women

E) ECONOMIC ANALYSIS

Project year	Dryland agriculture	Irrigated agriculture	Wadi horticulture	Livestock	Fishponds	IGA & drudgery		Total Incremental benefits	Economic investment Costs	Economic recurrent Costs	Total Incremental Costs	Cash Flow (million INR)
	NET INCREMENTAL BENEFITS								NET INCREMENTAL COSTS			
1	0.0	0.0	0.0	0.0	0.0			0.0	0.9	0.0	0.9	-1
2	0.0	0.0	0.0	0.0	0.0			0.0	109.6	0.0	109.6	-110
3	0.0	0.0	0.0	0.0	0.0			0.0	235.7	0.0	235.7	-236
4	0.0	0.0	-0.2	0.0	0.0			-0.2	1,017.0	1.9	1,018.9	-1,019
5	0.0	0.0	-0.7	0.0	0.0			-0.7	564.6	2.3	566.9	-568
6	89.5	194.7	0.8	0.0	0.0			284.9	901.4	128.5	1,029.9	-745
7	238.4	490.8	10.7	0.0	-0.3			739.6	554.7	327.3	882.0	-142
8	290.6	593.6	29.0	0.0	0.6			913.8	1,305.7	401.0	1,706.7	-793
9	363.0	743.9	84.4	0.0	0.9			1192.2	888.2	497.8	1,386.0	-194
10	625.3	1317.2	151.8	7.2	0.6	5.0		2107.1	545.1	880.5	1,425.6	681
11	1,052.2	2113.1	273.3	9.9	2.0	101.4		3552.0	509.3	1,457.5	1,966.8	1,585
12	1,156.6	2297.1	344.2	11.6	1.9	123.9		3935.2	641.9	1,630.9	2,272.8	1,662
13	1,200.9	2381.9	415.3	-3.7	3.4	140.9		4138.7	346.1	1,770.5	2,116.6	2,022
14	1,339.9	2676.7	415.3	-4.8	3.4	141.5		4572.0	56.2	1,984.2	2,040.4	2,532
15	1,339.9	2676.7	415.3	18.1	3.4	141.5		4594.9	56.2	1,963.7	2,019.9	2,575
16	1,339.9	2676.7	415.3	84.6	3.4	141.5		4661.3	56.2	1,965.5	2,021.7	2,640
17	1,339.9	2676.7	415.3	156.3	3.4	141.5		4733.1	56.2	1,968.8	2,025.0	2,708
18	1,339.9	2676.7	415.3	209.5	3.4	141.5		4786.2	56.2	1,974.5	2,030.7	2,756
19	1,339.9	2676.7	415.3	234.9	3.4	141.5		4811.7	56.2	1,980.6	2,036.8	2,775
20	1,339.9	2676.7	415.3	234.9	3.4	141.5		4811.7	56.2	1,973.0	2,029.2	2,783

NPV at 7.8% ('million)	3,427
BCR	1.37
EIRR	21%

Current GoI Bond rate is applied as Discount rate

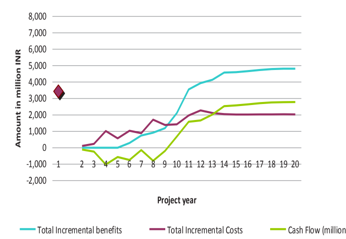
12,599 9,172

F) SENSITIVITY ANALYSIS (SA)

	Δ%	Link with the risk matrix	IRR	NPV 1/
Basecase scenario			21%	3,428
Project benefits	-20%	lack of financial capacity	14%	908
Project costs	15%	inadequate profit margins and poor capacity of groups		
Project benefits	-15%		11%	162
2 years lag in benefits.		lack of quality inputs, weak services	15%	1,632
Project benefits	-25%	climate risks, cyclones, low rainfall and poor access	11%	278
Input prices	25%	lack of policy commitment	14%	1,135

1/ NPV is in million INR discounted at 10%

G)



Annex-A NET INCREMENTAL BENEFITS OF SUBPROJECTS, FINANCIAL

A)		Dryland	Irrigated	Wadi	Livestock	Fishpond	IGA	Drudgery	
		Net incremental benefits of Farm and Activity subproject models in 000 INR							
FINANCIAL ANALYSIS	PY1	0	0	0	0	0	0	0	
	PY2	-	0	-	-	0	0	0	
	PY3	0	-	0	0	0	0	0	
	PY4	-	0	-2,503	-	0	0	0	
	PY5	0	0	-3,346	0	0	0	0	
	PY6	45,888	144,130	-4,581	-	0	0	0	
	PY7	122,217	363,415	3,400	0	-525	0	0	
	PY8	148,984	439,559	19,134	-	-6	0	0	
	PY9	186,121	550,809	85,524	0	150	-11	0	
	PY10	320,586	975,287	161,538	-10,644	-630	-8	5959	
	PY11	539,419	1,564,662	292,958	-37,663	284	-277	119,262	
	PY12	592,913	1,700,881	373,035	-84,328	-373	-818	145,610	
	PY13	615,669	1,763,675	453,808	-194,974	653	-1,177	165,371	
	PY14	686,902	1,981,971	462,462	-235,167	598	-812	165,371	
	PY15	686,902	1,981,971	462,462	-184,024	552	-630	165,371	
	PY16	686,902	1,981,971	462,462	-107,890	552	-630	165,371	
	PY17	686,902	1,981,971	462,462	-27,333	552	-630	165,371	
	PY18	686,902	1,981,971	462,462	28,507	552	-630	165,371	
	PY19	686,902	1,981,971	462,462	51,204	552	-630	165,371	
	PY20	686,902	1,981,971	462,462	60,167	552	-630	165,371	
NPV (INR, 000)		1,475,821	4,291,085	853,963	-168,013	334	-1,262	284,438	
NPV (USD 000)		22,027.2	64,046.0	12,745.7	-2,507.7	5.0	-18.8	4,245.3	
FIRR (@ 12%)									

Annex-B PROJECT COSTS AND INDICATORS FOR LOGFRAME

B)

PROJECT COSTS AND INDICATORS FOR LOGFRAME						
TOTAL PROJECT COSTS (in million USD)		**79.22**	Base costs		PMU	7.7
Number of Beneficiaries	**56,180** Households	ST	SC	Others	VDCs	SHGs
		42,200	8,070	5,910	358	4,273
Cost per beneficiary (IFAD resources)	**530** USD/ household				**Adoption rates**	**70%**

Components	Cost USD M	Outcomes	Indicators
Capacity building	8.47	4273 SHGs & 358 VDCs organised	90% SHGs and VDCs function effectively
Livelihood enhancement	39.88	Livelihoods and food secuirty improved	99% hh have at least two sources of incomes
Support to Policy initiatives	0.25	Land allottment to landless	15,000 hh allotted houselots & 2006 farm lands
Development Initiatives fund	16.93	56,180 hh use common infrastructure	O&M by viilage communities
Project Management a/	8.11	Implementation as scheduled	Annual progress, RIMS reports produced
Total Project costs b/	79.22		

a/ Including Food handling by GoO; b/ including WFP assistance of USD 5.58 million

Annex-C MAIN ASSUMPTIONS AND SHADOW PRICES

C)	MAIN ASSUMPTIONS & SHADOW PRICES[1]					
FINANCIAL	**Output**	Incremental value (%)	Price (in INR)	**Input prices**	Price (INR)	
	Crops, rainfed	25-35%	Paddy 21, millet 15/kg	Fertilizer, average, per kg	28	
	Crops, irrigated	75 -80%	vegetables 20/kg	Pesticides, average, per lit	300	
	Wadi horticulture	100.0%	Mango 25, cashew 120/kg			
	Livestock	34.1%	Do 3000, poultry 300/each	Rural wage rate, pers_day	200	
	Fishponds	24.1%	Fish 120/kg			
	IGAs	50.0%	Hill brooms 50/each			
ECONOMIC	Official Exchange rate, June	67		Discount rate (opportunity cost of capital)	10.0%	
	Shadow Exchange rate b/	96		Long term bond rate	10.0%	
	Standard Conversion Factor	1.43		Output conversion factor a/	0.85	
	Labour Conversion factor	0.85		Input Conversion factor a/	0.85	

[1] All prices expressed in INR Currency.

a/ estimated from data generated from farmod

b/ arrived at using export and import values* OER

Annex-D BENEFICIARIES, PHASING BY INTERVENTION AND ADOPTION RATES

D)

BENEFICIARIES, PHASING BY INTERVENTION AND ADOPTION RATES

Project year → / Interventions	PY1 to PY 6	PY 7	PY8	PY9	PY10	PY11	PY12	PY13	Adoption rates
Dryland agriculture households *(rainfed crops like paddy, millets, pulses etc)*	6,187	7,542	9,422	16,229	27,307	30,015	31,167	34,773	80%
Irrigated agriculture households *(paddy, maize, vegetables, spices, pulses etc)*	2,940	3,556	4,456	7,890	12,658	13,760	14,268	16,034	60%
Wadi horticulture households *(Mango and cashew plantations)*	1,396	2,001	2,786	3,425	4,685	5,085	5,390	5,390	70%
Livestock households *(Backyard poultry, goats)*	0	0	0	902	1,957	3,512	5,363	6,612	70%
Fish ponds # of ponds *(xxx households total)*	*0*	*79*	*106*	*114*	*236*	*259*	*381*	*381*	*70%*
IGA households *(NTFP etc)*	*0*	*0*	*0*	*1*	*1*	*26*	*83*	*140*	*70%*
Drudgery reducing households *(watersupply, wood stoves,infrastructure, processing e*	*0*	*0*	*0*	*0*	*1,258*	*25,348*	*30,948*	*35,148*	*100%*
Total # of beneficiaries (adopted hh)	6,187	7,542	9,422	16,229	27,307	30,015	31,167	34,773	

Annex-E: NET INCREMENTAL BENEFITS & IRR

ECONOMIC ANALYSIS

E)	NET INCREMENTAL BENEFITS								NET INCREMENTAL COSTS			Cash Flow (million INR)
Project year	Dryland agriculture	Irrigated agriculture	Wadi horticulture	Livestock	Fishponds	IGA & drudgery		Total Incremental benefits	Economic investment Costs	Economic recurrent Costs	Total Incremental Costs	
1	0.0	0.0	0.0	0.0	0.0			*0.0*	0.9	0.0	*0.9*	**-1**
2	0.0	0.0	0.0	0.0	0.0			*0.0*	109.6	0.0	*109.6*	**-110**
3	0.0	0.0	0.0	0.0	0.0			*0.0*	235.7	0.0	*235.7*	**-236**
4	0.0	0.0	-0.2	0.0	0.0			*-0.2*	1,017.0	1.9	*1,018.9*	**-1,019**
5	0.0	0.0	-0.7	0.0	0.0			*-0.7*	564.6	2.3	*566.9*	**-568**
6	89.5	194.7	0.8	0.0	0.0			*284.9*	901.4	128.5	*1,029.9*	**-745**
7	238.4	490.8	10.7	0.0	-0.3			*739.6*	554.7	327.3	*882.0*	**-142**
8	290.6	593.6	29.0	0.0	0.6			*913.8*	1,305.7	401.0	*1,706.7*	**-793**
9	363.0	743.9	84.4	0.0	0.9			*1192.2*	888.2	497.8	*1,386.0*	**-194**
10	625.3	1317.2	151.8	7.2	0.6	5.0		*2107.1*	545.1	880.5	*1,425.6*	**681**
11	1,052.2	2113.1	273.3	9.9	2.0	101.4		*3552.0*	509.3	1,457.5	*1,966.8*	**1,585**
12	1,156.6	2297.1	344.2	11.6	1.9	123.9		*3935.2*	641.9	1,630.9	*2,272.8*	**1,662**
13	1,200.9	2381.9	415.3	-3.7	3.4	140.9		*4138.7*	346.1	1,770.5	*2,116.6*	**2,022**
14	1,339.9	2676.7	415.3	-4.8	3.4	141.5		*4572.0*	56.2	1,984.2	*2,040.4*	**2,532**
15	1,339.9	2676.7	415.3	18.1	3.4	141.5		*4594.9*	56.2	1,963.7	*2,019.9*	**2,575**
16	1,339.9	2676.7	415.3	84.6	3.4	141.5		*4661.3*	56.2	1,965.5	*2,021.7*	**2,640**
17	1,339.9	2676.7	415.3	156.3	3.4	141.5		*4733.1*	56.2	1,968.8	*2,025.0*	**2,708**
18	1,339.9	2676.7	415.3	209.5	3.4	141.5		*4786.2*	56.2	1,974.5	*2,030.7*	**2,756**
19	1,339.9	2676.7	415.3	234.9	3.4	141.5		*4811.7*	56.2	1,980.6	*2,036.8*	**2,775**
20	1,339.9	2676.7	415.3	234.9	3.4	141.5		*4811.7*	56.2	1,973.0	*2,029.2*	**2,783**

NPV at 7.8% ('million)	**3,427**
BCR	**1.37**
EIRR	**21%**

Current GoI Bond rate is applied as Discount rate

12,599 9,172

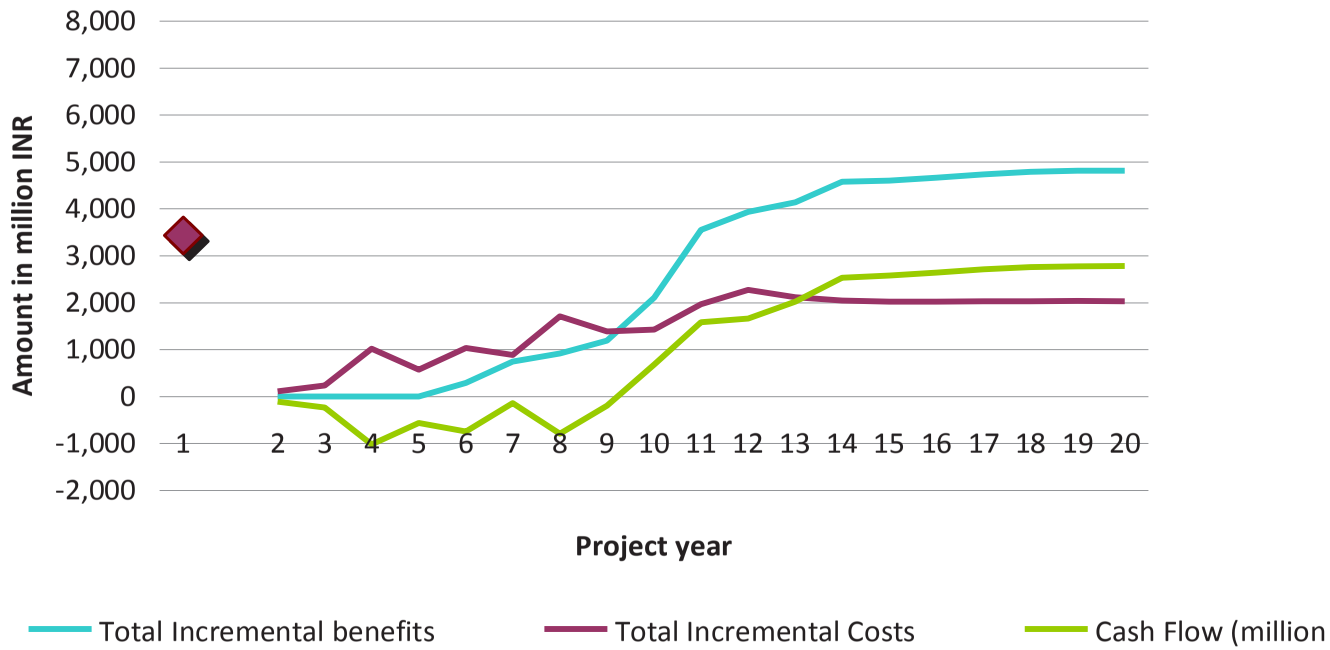
Annex-F SENSITIVITY ANALYSIS

F)

SENSITIVITY ANALYSIS (SA)				
	Δ%	**Link with the risk matrix**	**IRR**	**NPV 1/**
Basecase scenario			21%	3,428
Project benefits	-20%	lack of financial capacity	14%	908
Project costs	15%	inadequate profit margins and poor capacity of groups	11%	162
Project benefits	-15%			
2 years lag in benefits.		lack of quality inputs, weak services	15%	1,632
Project benefits	-25%	climate risks, cyclones, low rainfall and poor access	11%	278
Input prices	25%	lack of policy commitment	14%	1,135
1/ NPV is in million INR discounted at 10%				

Annex-F SENSITIVITY ANALYSIS

G)



PROJECT PERFORMANCE INDICATORS AND SENSITIVITY ANALYSIS AT PCR

Annex-1: Project performance indicators (IRR, NPV & BCR)

ECONOMIC ANALYSIS

Country:	India	Discount rate:DR	0.1	10.0%
Project:	OTELP PCR			
Currency unit	Million INR			

	Project Year																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Benefits																				
Incremental benefits	0	0	0	0	-1	285	740	914	1192	2107	3552	3935	4139	4572	4595	4661	4733	4786	4812	4812
Other benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Incremental benefits	0	0	0	0	-1	285	740	914	1192	2107	3552	3935	4139	4572	4595	4661	4733	4786	4812	4812
Costs a/																				
Investment costs	1	110	236	1017	565	901	555	1306	888	545	509	642	346	56	56	56	56	56	56	56
Production costs	0	0	0	2	2	129	327	401	498	881	1458	1631	1770	1984	1964	1965	1969	1974	1981	1973
Incremental costs	1	110	236	1019	567	1030	882	1707	1386	1426	1967	2273	2117	2040	2020	2022	2025	2031	2037	2029
Incremental net benefits	-1	-110	-236	-1019	-567	-745	-142	-793	-194	681	1585	1662	2022	2531	2575	2640	2708	2756	2775	2783

a/ including O&M costs of productive infrastructure

Basecase results discounted:		10.0%
NPV of benefit streams discounted at	10.0%	12,600
NPV of costs stream discounted at	10.0%	9,172
NPV of project discounted at	10.0%	3,428
BCR- discounted benefits & costs at	10.0%	1.37
IRR		21%

If benefits lagged by 2 year	10.0%	
NPV of benefit streams discounted at	10.0%	10,804
NPV of costs stream discounted at	10.0%	9,172
NPV of project discounted at	10.0%	1,632
BCR- discounted benefits & costs at	10.0%	1.18
IRR		15%

If no wadi & vegetables planted...		
NPV of benefit streams discounted at	10.0%	7,113
NPV of costs stream discounted at	10.0%	8,261
NPV of project discounted at	10.0%	-1,148
BCR- discounted benefits & costs at	10.0%	0.86
IRR		4%

Annex-2: Project sensitivity analysis (Switching values etc…)

Results of Sensitivity Analysis using 10% discount rate:

		Costs increased by				Benefits down by				Both cost increase & benefits down			
Project Performance indicators		10%	15%	20%	25%	10%	15%	20%	25%	10%	15%	20%	25%
NPV of at discount rate of	10.0%	2,510	2,052	1,593	1,135	2,168	1,538	908	278	1,250	162	-927	-2,015
BCR at discount rate of	10.0%	1.25	1.19	1.14	1.10	1.24	1.17	1.10	1.03	1.12	1.02	0.92	0.82
IRR		18%	17%	15%	14%	18%	16%	14%	11%	14%	11%	6%	2%

Switching Value Analysis:

Switching Value:	Appraisal	Switching value	% change
Total Benefits at 8.5% DR	12,600	9,172	-27
Total Costs at 8.5% DR	9,172	12,600	37

Annex-3: Project investment costs (adjusted to April-May 2016 prices)

OTELP INVESTMENT COSTS BY FINANCIER AND BY YEAR (amount in 000 INR)

Implementation phasees:	Phase-I				Phase-II				Phase-III				
Financier	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1 IFAD LOAN	111	1,532	7,427	33,984	62,414	95,751	71,144	301,815	441,750	197,166	-	-	-
2 IFAD LOAN, Additional	-	-	-	-	-	-	-	-	-	-	-	381,584	195,989
3 DFID GRANT	260	3,575	17,330	79,297	145,632	223,419	134,030	-	-	-	-	-	-
4 BENEFICIARY CONTRIBUTION	-	-	-	-	-	58,755	16,703	28,562	26,723	34,529	13,439	44,695	13,796
5 CONVERGENCE	-	-	-	-	-	-	-	-	85,260	167,360	398,330	139,820	86,970
6 GOVERNMENT OF ODISHA	-	34,000	70,540	344,130		322,770	187,530	440,000	12,437	307,550		118,410	
TOTAL INVESTMENT COST	**371**	**39,107**	**95,297**	**457,411**	**208,046**	**377,925**	**221,877**	**770,377**	**553,733**	**399,055**	**411,769**	**566,099**	**296,755**
LESS TAXES ASSUMING AT 5%	352	37,152	90,532	434,540	197,644	359,029	210,783	731,858	526,046	379,102	391,181	537,794	281,917
7 WFP CONTRIBUTIONS,			2,379	18,988	58,703	86,058	80,040	85,435	66,412	1,467	-	-	-
TOTAL EXPENDITURES	352	37,152	92,911	453,529	256,346	445,087	290,823	817,293	592,458	380,569	391,181	537,794	281,917
COSTS ADJUSTED TO INFLATION a/	887	90,122	216,195	997,537	529,970	845,220	498,471	1,249,559	831,989	488,955	453,104	585,711	289,952
Total project costs, economic	**887.117**	**90,122.473**	**216,194.769**	**997,536.530**	**529,970.217**	**845,220.232**	**498,470.742**	**1,249,559.191**	**831,989.036**	**488,955.321**	**453,104.431**	**585,711.500**	**289,951.892**

a/ estimated using annual inflation rates starting from the current fiscal and working backward; b/ food grains valued at INR 22,000 per ton and pulses at INR 30,000/ton

7 WFP ASSISTANCE													
FOODGRAINS, ton			101.41	796.71	2540.02	3899.93	3634.36	3883.4	3018.72	66.68			
Pulses, ton			4.93	48.69	94.07	8.66	2.8						
Value of food grains			2231.02	17527.62	55880.44	85798.46	79955.92	85434.80	66411.84	1466.96			
Value of pulses			147.9	1460.7	2822.1	259.8	84						
			2378.92	18988.32	58702.54	86058.26	80039.92	85434.80	66411.84	1466.96			
Cost adjusdment factor	**2.517**	**2.4258**	**2.3269**	**2.1995**	**2.0674**	**1.899**	**1.714**	**1.5289**	**1.4043**	**1.2848**	**1.1583**	**1.0891**	**1.0285**

Annex-4: Project incremental "benefits and costs" streams

Project Summary

ECONOMIC BUDGET (AGGREGATED) (In INR Million)	Without Project	WP	Increments																			
	1 to 20	1 to 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																						
Cereals, oilseeds & pulses	576.9	1,393.1	-	-	-	-	-	57.4	147.9	179.4	224.5	393.3	642.9	702.0	728.3	816.1	816.1	816.1	816.1	816.1	816.1	816.1
Bye-product	10.2	22.0	-	-	-	-	-	0.8	2.1	2.6	3.2	5.7	9.2	10.1	10.4	11.7	11.7	11.7	11.7	11.7	11.7	11.7
Vegetables	-	1,905.1	-	-	-	-	-	137.0	347.9	421.3	527.7	931.0	1,502.9	1,636.2	1,696.9	1,905.1	1,905.1	1,905.1	1,905.1	1,905.1	1,905.1	1,905.1
Wadi horticulture & spices	-	1,731.0	-	-	-	-	-	92.7	248.3	318.2	446.6	780.7	1,309.4	1,477.9	1,591.9	1,731.0	1,731.0	1,731.0	1,731.0	1,731.0	1,731.0	1,731.0
Drudgery reduction	-	140.6	-	-	-	-	-	-	-	-	-	5.0	101.4	123.8	140.6	140.6	140.6	140.6	140.6	140.6	140.6	140.6
Livestock products	-	280.3	-	-	-	-	-	-	-	-	-	11.0	19.6	30.7	31.1	40.6	63.5	130.0	201.8	254.9	280.3	280.3
IGA	-	2.0	-	-	-	-	-	-	-	-	0.0	0.0	0.2	0.7	1.4	1.8	2.0	2.0	2.0	2.0	2.0	2.0
Fish harvested	-	4.7	-	-	-	-	-	-	-	1.0	1.3	1.4	2.9	3.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Proxy labour value	85.0	5.2	-	-	-	-0.2	-0.7	-3.0	-6.6	-8.6	-11.1	-21.0	-36.6	-49.4	-66.7	-79.8	-79.8	-79.8	-79.8	-79.8	-79.8	-79.8
Sub-total Main Production	672.1	5,483.9	-	-	-	-0.2	-0.7	285.0	739.6	913.9	1,192.2	2,107.1	3,552.0	3,935.2	4,138.7	4,571.8	4,594.9	4,661.3	4,733.1	4,786.2	4,811.7	4,811.7
Production Cost																						
Investment																						
Seeds & planting materials	58.7	584.0	-	-	-	0.1	0.0	36.4	94.6	115.0	143.8	250.7	413.4	452.2	469.3	525.2	525.2	525.2	525.2	525.2	525.2	525.2
Fertilisers, PP chemicals & compost	-	97.2	-	-	-	-	-	6.9	17.6	21.4	26.8	47.0	76.6	83.6	86.7	97.2	97.2	97.2	97.2	97.2	97.2	97.2
Goat	-	8.5	-	-	-	-	-	-	-	-	-	-	5.9	11.6	31.9	21.9	-	1.0	4.3	9.9	16.1	8.5
Poultry unit	-	-	-	-	-	-	-	-	-	-	-	4.4	3.4	4.4	0.1	-	-	-	-	-	-	-
Fish production	-	1.3	-	-	-	-	-	-	0.2	0.3	0.3	0.7	0.8	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Sub-total Investment Costs	58.7	691.0	-	-	-	0.1	0.0	43.3	112.5	136.7	171.0	302.8	500.1	553.0	589.3	645.6	623.8	624.8	628.0	633.7	639.9	632.3
Operating																						
Purchased Inputs																						
Fertilisers, PP chemicals & compost	-	-	-	-	-	0.1	0.4	1.1	1.9	3.0	5.2	3.8	5.9	7.3	8.7	-	-	-	-	-	-	-
Goat	-	21.0	-	-	-	-	-	-	-	-	-	1.3	3.5	7.2	13.9	18.9	20.2	20.9	21.0	21.0	21.0	21.0
Poultry unit	-	8.1	-	-	-	-	-	-	-	-	-	2.9	5.1	8.0	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Fish production	-	1.6	-	-	-	-	-	-	-	0.3	0.4	0.5	1.0	1.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
IGA inputs	-	0.4	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Sub-Total Purchased Inputs	-	31.1	-	-	-	0.1	0.4	1.1	1.9	3.3	5.6	8.5	15.6	23.8	32.5	28.9	30.2	31.0	31.1	31.1	31.1	31.1
Labor																						
Farm labour	504.5	1,814.2	-	-	-	1.7	1.8	84.2	213.0	261.0	321.2	569.3	941.8	1,054.2	1,148.6	1,309.7	1,309.7	1,309.7	1,309.7	1,309.7	1,309.7	1,309.7
Sub-total Operating Costs	504.5	1,845.2	-	-	-	1.8	2.2	85.3	214.9	264.3	326.8	577.7	957.4	1,078.0	1,181.1	1,338.6	1,340.0	1,340.7	1,340.8	1,340.8	1,340.8	1,340.8
Sub-Total Production Cost	563.2	2,536.2	-	-	-	1.9	2.3	128.5	327.3	401.0	497.8	880.5	1,457.5	1,630.9	1,770.5	1,984.2	1,963.7	1,965.5	1,968.8	1,974.5	1,980.6	1,973.0
Other Costs																						
Investment costs	-	56.2	0.9	109.6	235.7	1,017.0	564.6	901.4	554.7	1,305.7	888.2	545.1	509.3	641.9	346.1	56.2	56.2	56.2	56.2	56.2	56.2	56.2
OUTFLOWS	563.2	2,592.4	0.9	109.6	235.7	1,018.9	566.8	1,029.9	882.0	1,706.7	1,386.0	1,425.7	1,966.8	2,272.8	2,116.6	2,040.4	2,019.9	2,021.7	2,025.0	2,030.6	2,036.8	2,029.2
Cash Flow	108.9	2,891.5	-0.9	-109.6	-235.7	-1,019.2	-567.5	-745.0	-142.3	-792.9	-193.8	681.5	1,585.2	1,662.4	2,022.1	2,531.4	2,575.0	2,639.7	2,708.1	2,755.6	2,774.9	2,782.5

IRR = 21.3%, NPV = 3,427.42

Annex-5: Project incremental Production

Project Summary

PRODUCTION AND INPUTS (Detailed) (In Units)	Unit	Without Project	Increments																		
		1 to 20	20	1 to 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Paddy	ton	19,652	39,940	-	-	-	1,450	3,697	4,479	5,609	9,876	15,998	17,432	18,080	20,288	20,288	20,288	20,288	20,288	20,288	20,288
Maize grain	ton	1,629	10,263	-	-	-	613	1,569	1,902	2,382	4,183	6,805	7,422	7,700	8,634	8,634	8,634	8,634	8,634	8,634	8,634
Millet	ton	3,566	7,848	-	-	-	288	764	930	1,162	2,006	3,364	3,694	3,836	4,282	4,282	4,282	4,282	4,282	4,282	4,282
Blackgram	ton	939	2,425	-	-	-	99	264	322	403	694	1,167	1,283	1,332	1,487	1,487	1,487	1,487	1,487	1,487	1,487
Horsegram	ton	939	2,587	-	-	-	110	293	357	447	769	1,294	1,423	1,477	1,648	1,648	1,648	1,648	1,648	1,648	1,648
Mustard	ton	1,561	3,076	-	-	-	108	276	335	419	738	1,195	1,302	1,351	1,516	1,516	1,516	1,516	1,516	1,516	1,516
Cow pea	ton	1,597	5,948	-	-	-	310	792	960	1,202	2,116	3,431	3,739	3,879	4,352	4,352	4,352	4,352	4,352	4,352	4,352
Paddy straw	ton	24,072	51,649	-	-	-	1,966	5,020	6,083	7,617	13,400	21,743	23,700	24,583	27,578	27,578	27,578	27,578	27,578	27,578	27,578
Onion	ton	-	7,723	-	-	-	560	1,414	1,711	2,144	3,792	6,096	6,630	6,875	7,723	7,723	7,723	7,723	7,723	7,723	7,723
Okra	ton	-	16,475	-	-	-	1,198	3,021	3,654	4,579	8,107	13,006	14,138	14,660	16,475	16,475	16,475	16,475	16,475	16,475	16,475
Tomato	ton	-	24,051	-	-	-	1,749	4,410	5,334	6,684	11,835	18,987	20,640	21,402	24,051	24,051	24,051	24,051	24,051	24,051	24,051
Potato	ton	-	16,983	-	-	-	1,148	3,034	3,694	4,617	7,982	13,346	14,648	15,208	16,983	16,983	16,983	16,983	16,983	16,983	16,983
Mango	ton	-	14,230	-	-	-	103	307	660	1,225	3,768	8,246	11,187	14,230	14,230	14,230	14,230	14,230	14,230	14,230	14,230
Cashew nut	kg	-	1,185,800	-	-	-	-	61,424	176,088	612,700	753,500	1,030,700	1,118,700	1,185,800	1,185,800	1,185,800	1,185,800	1,185,800	1,185,800	1,185,800	1,185,800
Ginger rizome	ton	-	16,826	-	-	-	1,165	3,031	3,683	4,607	8,027	13,242	14,490	15,037	16,826	16,826	16,826	16,826	16,826	16,826	16,826
Turmeric rhizome	ton	-	14,423	-	-	-	998	2,598	3,157	3,949	6,880	11,350	12,420	12,889	14,423	14,423	14,423	14,423	14,423	14,423	14,423
Increased fire-w ood collection	hh/year	-	35,148	-	-	-	-	-	-	-	1,258	25,348	30,948	35,148	35,148	35,148	35,148	35,148	35,148	35,148	35,148
Value of firew ood saved	hh per year	-	35,148	-	-	-	-	-	-	-	1,258	25,348	30,948	35,148	35,148	35,148	35,148	35,148	35,148	35,148	35,148
Value of labourdays saved	hh per year	-	35,148	-	-	-	-	-	-	-	1,258	25,348	30,948	35,148	35,148	35,148	35,148	35,148	35,148	35,148	35,148
Sale of does	animal	-	32,584	-	-	-	-	-	-	-	-	-	-	-	1,017	4,698	13,477	26,339	32,584	32,584	32,584
Sale of bucks	animal	-	24,438	-	-	-	-	-	-	-	-	-	-	-	1,017	3,003	9,489	15,222	20,691	24,438	24,438
Sale of poultry birds	bird	-	121,872	-	-	-	-	-	-	-	43,296	76,704	120,528	121,872	121,872	121,872	121,872	121,872	121,872	121,872	121,872
Sale of Hill brooms	#	-	2,800	-	-	-	-	-	-	20	20	520	1,660	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
NTFP value-added products	kg	-	22,400	-	-	-	-	-	-	80	120	2,160	7,720	15,560	20,120	22,400	22,400	22,400	22,400	22,400	22,400
Fish production	kg	-	45,720	-	-	-	-	-	9,480	12,720	13,680	28,320	31,080	45,720	45,720	45,720	45,720	45,720	45,720	45,720	45,720
WOP value of labour	personday	499,782	30,426	-	-1,355	-3,828	-17,758	-39,040	-50,382	-65,144	-123,713	-215,192	-290,430	-392,167	-469,356	-469,356	-469,356	-469,356	-469,356	-469,356	-469,356

Annex-6: Project incremental Labour

Project Summary

LABOR BUDGET (In Units)	Unit	Without Project	WP	Increments											
		1 to 20	14 to 20	1 to 3	4	5	6	7	8	9	10	11	12	13	14 to 20
Labor Requirements															
Clearing, land preparation	pers_day	313,293	612,291	-	678	-	21,111	54,243	65,789	82,351	144,418	235,599	257,127	266,755	298,998
Compost application	pers_day	114,906	205,306	-	-	-	6,442	16,455	19,940	24,968	43,919	71,273	77,690	80,586	90,399
Sowing, broadcasting	pers_day	201,124	82,412	-	-	-	-8,000	-21,186	-25,805	-32,248	-55,703	-93,273	-102,410	-106,326	-118,712
Nursery management	pers_day	-	31,774	-	-	-	2,309	5,824	7,045	8,828	15,627	25,083	27,270	28,277	31,774
Line sowing	pers_day	-	459,473	-	-	-	31,778	82,747	100,551	125,770	219,085	361,582	395,690	410,647	459,473
Weeding	pers_day	656,676	1,900,062	-	-	-	87,510	225,315	273,354	342,130	599,370	979,545	1,069,500	1,109,605	1,243,386
Watering	pers_day	-	166,948	-	2,710	7,656	28,381	54,983	72,065	46,143	81,226	131,645	143,453	148,796	166,948
Bed preparation	pers_day	-	389,185	-	-	-	27,043	70,204	85,273	106,679	186,111	306,357	335,052	347,690	389,185
Application of PPC	pers_day	78,609	147,590	-	-	-	4,965	12,601	15,256	19,110	33,724	54,421	59,241	61,439	68,981
Application of fertilisers	pers_day	73,719	94,270	-	339	957	2,638	4,618	6,288	8,483	11,592	17,134	18,691	19,650	20,551
cutting, loading of bundles	pers_day	19,561	310,979	-	-	-	21,192	53,435	64,630	80,988	143,401	230,059	250,088	259,321	291,418
Bundling, loading straw	pers_day	314,437	543,620	-	-	-	16,217	41,610	50,457	63,164	110,849	180,613	197,060	204,431	229,184
Threshing, winnowing, bagging	pers_day	560,688	1,210,452	-	-	-	45,672	117,690	142,799	178,720	312,964	511,846	558,945	579,918	649,764
Harvesting	pers_day	634,357	3,086,244	-	-	-	167,149	432,198	530,329	674,064	1,183,538	1,939,925	2,116,176	2,197,361	2,451,887
Layout, demarcation	pers_day	-	-	-	136	-	-	-	-	-	-	-	-	-	-
Digging of pits	pers_day	-	-	-	1,830	479	-	-	-	-	-	-	-	-	-
Planting and watering	pers_day	-	420,659	-	339	-	29,115	75,776	92,074	115,171	200,669	331,052	362,246	375,934	420,659
staking	pers_day	-	24,051	-	339	-	1,749	4,410	5,334	6,684	11,835	18,987	20,640	21,402	24,051
Training, pruning	pers_day	-	23,716	-	203	574	2,468	3,685	8,804	12,254	15,070	20,614	22,374	23,716	23,716
Mulching	pers_day	-	96,151	-	1,694	574	6,655	17,320	21,046	26,325	45,867	75,669	82,799	85,928	96,151
Fencing	pers_day	-	-	-	1,694	287	617	921	-	-	-	-	-	-	-
Poultry labour	pers_day	-	126,950	-	-	-	-	-	-	-	45,100	79,900	125,550	126,950	126,950
Goat Labour	pers_day	-	733,140	-	-	-	-	-	-	-	-	61,020	180,180	508,320	733,140
NTFP collection labour	pers_day	-	6,300	-	-	-	-	-	-	45	45	1,170	3,735	6,300	6,300
Sub-Total Labor Requirements		2,967,370	10,671,574	-	9,961	10,527	495,009	1,252,850	1,535,228	1,889,627	3,348,707	5,540,220	6,201,095	6,756,699	7,704,204

Annex-7: Prices used in the EFA, (as prevailed in April-May 2016) a/

(In INR)	Unit	Economic	Financial
Outputs			
Cereals, oilseeds & pulses			
Paddy	ton	18,020	21,200
Maize grain	ton	13,600	16,000
Wheat	ton	15,725	18,500
Millet	ton	13,175	15,500
Blackgram	ton	21,250	25,000
Greengram	ton	85,000	100,000
Horsegram	ton	59,500	70,000
Gram	ton	36,550	43,000
Pigeon Pea	ton	26,987.5	31,750
Ragi	ton	17,000	20,000
Sorghum	ton	17,000	20,000
Mustard	ton	23,800	28,000
Groundnut	ton	34,000	40,000
Niger	ton	51,000	60,000
Sesame	ton	38,250	45,000
Cowpea	ton	25,500	30,000
Redgram	ton	68,000	80,000
Bye-product			
Paddy straw	ton	425	500
Wheat straw	ton	425	500
Vegetables			
Radish	ton	17,000	20,000
Onion	ton	12,750	15,000
Green peas	ton	51,000	60,000
Gourd vegetables	ton	5,950	7,000
Cucumber	ton	21,250	25,000
Okra	ton	42,500	50,000
Tomato	ton	34,000	40,000
Brinjal	ton	38,250	45,000
Potato	ton	17,000	20,000
Sweet potato	ton	17,000	20,000
Yam	ton	21,250	25,000
Amaranthus	ton	25,500	30,000
Cabbage & Cauliflower	ton	12,750	15,000
Bitter gourd	ton	21,250	25,000
Green chilli	ton	34,000	40,000
Wadi horticulture & spices			
Mango	ton	21,250	25,000
Cashew nut	kg	102	120
Ginger rizome	ton	34,000	40,000
Turmeric rhizome	ton	51,000	60,000
Drudgery reduction			
Increased fire-wood collection	hh/year	743.75	875
Value of firewood saved	hh per year	1,088	1,280
Value of labourdays saved	hh per year	2,167.5	2,550
Char coal	bundle	637.5	750
Livestock products			
Sale of does	animal	2,550	3,000
Sale of bucks	animal	6,800	8,000
Sale of kids	animal	1,275	1,500
Sale of poultry birds	bird	255	300
Sale of Chicks	bird	42.5	50

ECONOMIC AND FINANCIAL PRICES

(In INR)

	Unit	Economic	Financial
Outputs			
IGA			
Sale of Hill brooms	#	42.5	50
Sale of Siali leaf plates	1000 #	68	80
Sal leaf plates	1000 #	34	40
Sale of Honey	kg	255	300
Sale of Lac	kg	255	300
NTFP value-added products /a	kg	85	100
Fish			
Fish production	kg	102	120
Proxy labour value			
WOP value of labour	personday	170	200
Inputs			
Seeds & planting materials			
Paddy seed	kg	38.25	45
Maize seed	kg	51	60
Wheat seed	kg	15.3	18
Finger millet seed	kg	21.25	25
Millet seed	kg	17	20
Sorghum seed	kg	17	20
Blackgram seed	kg	23.8	28
Horsegram seed	kg	68	80
Greengram seed	kg	51	60
Cowpea seed	kg	42.5	50
Pigean Pea seed	kg	85	100
Mustard seed	kg	85	100
Groundnut seed	kg	34	40
Green chilli seed	kg	1,360	1,600
Radish seed	kg	459	540
Onion seed	kg	850	1,000
Greenpeas_seed	kg	212.5	250
Gourd vegetable seed	kg	510	600
Cucumber seed	kg	1,530	1,800
Okra seed	kg	425	500
Tomato seed	kg	680	800
Brinjal seed	kg	680	800
Potato seed	kg	21.25	25
Amaranth seed	kg	255	300
Cabbage, Cauliflower seed	kg	2,550	3,000
Mango seedlings	seedling	22.1	26
Cashewnut_seedling	seedling	22.1	26
Turmeric planting materials	kg	51	60
Ginger planting materials	kg	51	60
Niger seed	kg	42.5	50
Sweet potato seed	1000 #	425	500
sesame seed	kg	30.6	36
Yam planting materials	kg	25.5	30
Fertilisers, PP chemicals & compost			
Insecticides	kg	200	200
Rhizobium	kg	100	100
N fertiliser	kg	13	13
P fertiliser	kg	48	48
K fertiliser	kg	27	27
PP chemicals	kg	400	400
micro-nutrient	kg	450	450
Oil Cake	kg	20	20
Farm Yard Manure	cart load	250	250
Compost	ton	1,000	1,000

ECONOMIC AND FINANCIAL PRICES

(In INR)

	Unit	Economic	Financial
Ploughing			
Tractor ploughing	hr	1,200	1,500
Bullock ploughing	personday	560	700
Goat			
Goats for rearing	animal	2,975	3,500
Purchasing of Buck	animal	6,800	8,000
Rearing shed	shed	7,140	8,400
Equipment	set	595	700
Feed	kg	29.75	35
Vaccination	animal	8.5	10
Fodder	year	2,550	3,000
Concentrate	kg	6.8	8
Kids	animal	1,275	1,500
vaccination	animal/year	85	100
Transportation	unit	255	300
Insurance	unit/year	510	600
Poultry unit			
Poultry shed	unit	4,250	5,000
Equipment	unit	595	700
Chicks	bird	51	60
Feed	bird	63.75	75
Medicine, vaccination	bird	12.75	15
Fish			
Fingerlings	#	0.9775	1.15
Feed	INR/year	1,275	1,500
Pond maintenance	INR/year	1,275	1,500
Harvesting	INR/year	4,080	4,800
Miscellaneous costs	INR/year	1,700	2,000
IGA inputs			
Collection of broom, labour	#	38.25	45
Wire, plastics pipes	#	8.5	10
drying, making, transport	#	4.25	5
Value-addition	kg	17	20
Labor per day	pers_day	170.	200

\a roots, honey, wild mushroom, leaf plates etc

SUBPROJECT MODELS

Annex-8: Dryland agriculture households subproject, economic

India
OTELP PCR
Dryland households subproject Subproject Model

ECONOMIC BUDGET (AGGREGATED) (In INR '000)	Without Project	Increments									
	1 to 20	WP	1 to 5	6	7	8	9	10	11	12	13	14 to 20
Main Production												
Cereals, oilseeds & pulses	550,500	876,835	-	21,801	58,063	70,780	88,423	152,305	256,269	281,682	292,494	326,335
Bye-product	9,399	12,259	-	191	509	620	775	1,335	2,246	2,468	2,563	2,860
Vegetables	-	255,668	-	17,080	45,490	55,453	69,275	119,324	200,775	220,685	229,155	255,668
Wadi horticulture & spices	-	775,577	-	51,812	137,995	168,217	210,148	361,972	609,055	669,455	695,149	775,577
Proxy labour value	25,715	5,172	-	-1,372	-3,655	-4,455	-5,566	-9,587	-16,132	-17,731	-18,412	-20,542
Sub-total Main Production	585,614	1,925,512	-	89,511	238,402	290,614	363,055	625,347	1,052,213	1,156,559	1,200,949	1,339,898
Production Cost												
Investment												
Seeds & planting materials	55,713	360,142	-	20,337	54,166	66,028	82,487	142,081	239,066	262,774	272,859	304,429
Fertilisers, PP chemicals & compost	-	32,158	-	2,148	5,722	6,975	8,713	15,009	25,254	27,758	28,823	32,158
Sub-total Investment Costs	55,713	392,300	-	22,486	59,887	73,003	91,201	157,089	264,320	290,532	301,683	336,587
Operating												
Farm labour	478,416	902,684	-	28,343	75,488	92,020	114,958	198,011	333,175	366,215	380,271	424,268
Sub-Total Production Cost	534,130	1,294,985	-	50,829	135,375	165,024	206,159	355,101	597,494	656,747	681,953	760,855
OUTFLOWS	534,130	1,294,985	-	50,829	135,375	165,024	206,159	355,101	597,494	656,747	681,953	760,855
Cash Flow	51,484	630,527	-	38,683	103,026	125,590	156,896	270,247	454,719	499,812	518,996	579,043

IRR = None, NPV = 1,921,258.41

Annex-9: Dryland agriculture households subproject, financial

India
OTELP PCR
Dryland households subproject Subproject Mod
FINANCIAL BUDGET (AGGREGATED)
(In INR '000)

			Increments											
	WOP	WP	1 to 5	6	7	8	9	10	11	12	13	14	15 to 19	20
Main Production														
Cereals, oilseeds & pulses	647,647	1,031,571	-	25,648	68,310	83,270	104,027	179,182	301,492	331,391	344,110	383,923	383,923	383,923
Bye-product	11,058	14,422	-	225	599	730	912	1,570	2,642	2,904	3,015	3,364	3,364	3,364
Vegetables	-	300,786	-	20,094	53,518	65,238	81,500	140,381	236,206	259,630	269,595	300,786	300,786	300,786
Wadi horticulture & spices	-	912,444	-	60,956	162,347	197,902	247,233	425,849	716,536	787,594	817,822	912,444	912,444	912,444
Proxy labour value	30,253	6,085	-	-1,614	-4,300	-5,242	-6,548	-11,279	-18,978	-20,860	-21,661	-24,167	-24,167	-24,167
Sub-total Main Production	688,957	2,265,308	-	105,308	280,473	341,898	427,124	735,703	1,237,897	1,360,658	1,412,881	1,576,350	1,576,350	1,576,350
Production Cost														
Investment														
Seeds & planting materials	65,545	423,697	-	23,926	63,724	77,680	97,044	167,154	281,254	309,146	321,011	358,152	358,152	358,152
Fertilisers, PP chemicals & compost	-	32,158	-	2,148	5,722	6,975	8,713	15,009	25,254	27,758	28,823	32,158	32,158	32,158
Sub-total Investment Costs	65,545	455,855	-	26,075	69,446	84,655	105,757	182,163	306,508	336,904	349,834	390,310	390,310	390,310
Operating														
Farm labour	562,843	1,061,981	-	33,345	88,809	108,259	135,245	232,954	391,970	430,841	447,377	499,139	499,139	499,139
Sub-Total Production Cost	628,388	1,517,836	-	59,419	158,255	192,915	241,003	415,117	698,478	767,745	797,212	889,448	889,448	889,448
OUTFLOWS	628,388	1,517,836	-	59,419	158,255	192,915	241,003	415,117	698,478	767,745	797,212	889,448	889,448	889,448
Cash Flow Before Financing	60,570	747,472	-	45,888	122,217	148,984	186,121	320,586	539,419	592,913	615,669	686,902	686,902	686,902

IRR = None, NPV = 2,547,769.06

Annex-10: Irrigated agriculture households subproject, financial

India
OTELP PCR
Irrigated crops households subproject Subproje
FINANCIAL BUDGET (AGGREGATED)
(In INR '000)

			Increments										
	WOP	WP	1 to 5	6	7	8	9	10	11	12	13	14 to 19	20
Main Production													
Cereals, oilseeds & pulses	31,116	607,320	-	41,902	105,653	127,790	160,133	283,538	454,883	494,485	512,741	576,204	576,204
Bye-product	978	11,403	-	758	1,911	2,312	2,897	5,130	8,230	8,946	9,276	10,425	10,425
Vegetables	-	1,940,515	-	141,115	355,814	430,365	539,287	954,887	1,531,934	1,665,304	1,726,785	1,940,515	1,940,515
Wadi horticulture & spices	-	625,967	-	45,521	114,778	138,826	173,962	308,026	494,168	537,190	557,023	625,967	625,967
Proxy labour value	4,009	-	-	-292	-735	-889	-1,114	-1,973	-3,165	-3,440	-3,567	-4,009	-4,009
Sub-total Main Production	36,102	3,185,205	-	229,004	577,421	698,404	875,165	1,549,608	2,486,051	2,702,485	2,802,257	3,149,102	3,149,102
Production Cost													
Investment													
Seeds & planting materials	3,565	263,312	-	18,889	47,627	57,606	72,186	127,816	205,057	222,909	231,138	259,747	259,747
Fertilisers, PP chemicals & compost	-	65,047	-	4,730	11,927	14,426	18,077	32,008	51,351	55,822	57,883	65,047	65,047
Sub-total Investment Costs	3,565	328,359	-	23,619	59,554	72,033	90,263	159,825	256,408	278,731	289,021	324,795	324,795
Operating													
Farm labour	30,631	872,968	-	61,255	154,451	186,812	234,093	414,496	664,980	722,873	749,561	842,337	842,337
Sub-Total Production Cost	34,196	1,201,327	-	84,874	214,006	258,845	324,357	574,321	921,389	1,001,604	1,038,582	1,167,131	1,167,131
OUTFLOWS	34,196	1,201,327	-	84,874	214,006	258,845	324,357	574,321	921,389	1,001,604	1,038,582	1,167,131	1,167,131
Cash Flow Before Financing	1,906	1,983,877	-	144,130	363,415	439,559	550,809	975,287	1,564,662	1,700,881	1,763,675	1,981,971	1,981,971

IRR = None, NPV = 6,663,874.85

Annex-11: Irrigated agriculture households subproject, Economic

India
OTELP PCR
Irrigated crops households subproject Subproje

ECONOMIC BUDGET (AGGREGATED)
(In INR '000)

			Increments									
	WOP	WP	1 to 5	6	7	8	9	10	11	12	13	14 to 20
Main Production												
Cereals, oilseeds & pulses	26,448	516,222	-	35,617	89,805	108,621	136,113	241,007	386,651	420,312	435,829	489,774
Bye-product	831	9,692	-	644	1,625	1,965	2,463	4,360	6,995	7,604	7,885	8,861
Vegetables	-	1,649,438	-	119,948	302,441	365,810	458,394	811,654	1,302,144	1,415,508	1,467,767	1,649,438
Wadi horticulture & spices	-	532,072	-	38,693	97,561	118,002	147,868	261,822	420,043	456,612	473,469	532,072
Proxy labour value	3,407	-	-	-248	-625	-756	-947	-1,677	-2,690	-2,924	-3,032	-3,407
Sub-total Main Production	30,687	2,707,424	-	194,654	490,807	593,643	743,891	1,317,167	2,113,143	2,297,113	2,381,919	2,676,737
Production Cost												
Investment												
Seeds & planting materials	3,030	223,815	-	16,056	40,483	48,965	61,358	108,644	174,298	189,473	196,468	220,785
Fertilisers, PP chemicals & compost	-	65,047	-	4,730	11,927	14,426	18,077	32,008	51,351	55,822	57,883	65,047
Sub-total Investment Costs	3,030	288,863	-	20,786	52,410	63,392	79,436	140,652	225,650	245,295	254,351	285,832
Operating												
Farm labour	26,037	742,023	-	52,067	131,283	158,790	198,979	352,322	565,233	614,442	637,127	715,986
Sub-Total Production Cost	29,067	1,030,885	-	72,853	183,694	222,182	278,415	492,974	790,883	859,737	891,477	1,001,819
OUTFLOWS	29,067	1,030,885	-	72,853	183,694	222,182	278,415	492,974	790,883	859,737	891,477	1,001,819
Cash Flow	1,620	1,676,539	-	121,801	307,114	371,461	465,476	824,193	1,322,260	1,437,375	1,490,441	1,674,919

IRR = None, NPV = 5,593,177.13

Annex-12: Wadi orchard households' subproject, financial

India
OTELP PCR
Wadi households subproject Subproject Model

FINANCIAL BUDGET (AGGREGATED) (In INR '000)	Without Project	WP	Increments										
	1 to 20		1 to 3	4	5	6	7	8	9	10	11	12	13	14 to 20
Main Production														
Wadi horticulture & spices	-	498,036	-	-	-	2,571	15,049	37,639	104,159	184,608	329,824	413,919	498,036	498,036
Proxy labour value	9,486	-	-	-271	-766	-1,646	-2,457	-3,522	-4,902	-6,028	-8,246	-8,950	-9,486	-9,486
Sub-total Main Production	9,486	498,036	-	-271	-766	926	12,592	34,117	99,257	178,580	321,578	404,969	488,550	488,550
Production Cost														
Investment														
Seeds & planting materials	-	-	-	106	30	-	-	-	-	-	-	-	-	-
Operating														
Purchased Inputs														
Fertilisers, PP chemicals & compost	-	-	-	134	446	1,105	1,882	3,009	5,155	3,780	5,945	7,323	8,654	-
Labor														
Farm labour	-	26,088	-	1,992	2,105	4,402	7,309	11,974	8,578	13,262	22,675	24,611	26,088	26,088
Sub-total Operating Costs	-	26,088	-	2,126	2,551	5,507	9,192	14,983	13,733	17,041	28,620	31,934	34,742	26,088
Sub-Total Production Cost	-	26,088	-	2,232	2,581	5,507	9,192	14,983	13,733	17,041	28,620	31,934	34,742	26,088
OUTFLOWS	-	26,088	-	2,232	2,581	5,507	9,192	14,983	13,733	17,041	28,620	31,934	34,742	26,088
Cash Flow Before Financing	9,486	471,948	-	-2,503	-3,346	-4,581	3,400	19,134	85,524	161,538	292,958	373,035	453,808	462,462

Annex-13: Wadi orchard households' subproject, economic

India
OTELP PCR
Wadi households subproject Subproject Model
ECONOMIC BUDGET (AGGREGATED)

(In INR '000)	WOP	WP	Increments											
	WOP	WP	1 to 3	4	5	6	7	8	9	10	11	12	13	14 to 20
Main Production														
Wadi horticulture & spices	-	423,331	-	-	-	2,186	12,792	31,993	88,535	156,916	280,350	351,831	423,331	423,331
Proxy labour value	8,063	-	-	-230	-651	-1,399	-2,088	-2,993	-4,166	-5,124	-7,009	-7,607	-8,063	-8,063
Sub-total Main Production	8,063	423,331	-	-230	-651	787	10,703	28,999	84,369	151,793	273,342	344,224	415,267	415,267
Production Cost														
Investment														
Seeds & planting materials	-	-	-	90	25	-	-	-	-	-	-	-	-	-
Operating														
Purchased Inputs														
Fertilisers, PP chemicals & compost	-	-	-	134	446	1,105	1,882	3,009	5,155	3,780	5,945	7,323	8,654	-
Labor														
Farm labour	-	22,174	-	1,693	1,790	3,742	6,213	10,178	7,291	11,272	19,274	20,920	22,174	22,174
Sub-total Operating Costs	-	22,174	-	1,827	2,235	4,846	8,095	13,187	12,446	15,052	25,219	28,243	30,828	22,174
Sub-Total Production Cost	-	22,174	-	1,917	2,261	4,846	8,095	13,187	12,446	15,052	25,219	28,243	30,828	22,174
OUTFLOWS	-	22,174	-	1,917	2,261	4,846	8,095	13,187	12,446	15,052	25,219	28,243	30,828	22,174
Cash Flow	8,063	401,156	-	-2,147	-2,911	-4,060	2,608	15,812	71,922	136,741	248,122	315,981	384,439	393,093

IRR = 131.6%, NPV = 1,148,412.52

Annex-14: Livestock households' subproject, financial

India
OTELP PCR
livestock households subproject Subproject Model
FINANCIAL BUDGET (AGGREGATED)
(In INR '000)

	May -April													
	Without Project	WP	Increments											
	1 to 20	1 to 20	1 to 9	10	11	12	13	14	15	16	17	18	19	20
Main Production														
Livestock products	-	329,818	-	12,989	23,011	36,158	36,562	47,749	74,680	152,905	237,355	299,842	329,818	329,818
Proxy labour value	53,425	-	-	-4,510	-11,380	-22,565	-40,935	-53,425	-53,425	-53,425	-53,425	-53,425	-53,425	-53,425
Sub-total Main Production	53,425	329,818	-	8,479	11,631	13,593	-4,373	-5,676	21,255	99,480	183,930	246,417	276,393	276,393
Production Cost														
Investment														
Goat	-	9,992	-	-	6,983	13,637	37,554	25,729	-	1,187	5,029	11,677	18,956	9,992
Poultry unit	-	-	-	5,141	3,967	5,204	160	-	-	-	-	-	-	-
Sub-total Investment Costs	-	9,992	-	5,141	10,951	18,841	37,713	25,729	-	1,187	5,029	11,677	18,956	9,992
Operating														
Purchased Inputs														
Goat	-	24,694	-	1,579	4,167	8,518	16,312	22,222	23,739	24,644	24,694	24,694	24,694	24,694
Poultry unit	-	9,521	-	3,383	5,993	9,416	9,521	9,521	9,521	9,521	9,521	9,521	9,521	9,521
Sub-Total Purchased Inputs	-	34,215	-	4,961	10,160	17,934	25,833	31,743	33,261	34,165	34,215	34,215	34,215	34,215
Labor														
Farm labour	-	172,018	-	9,020	28,184	61,146	127,054	172,018	172,018	172,018	172,018	172,018	172,018	172,018
Sub-total Operating Costs	-	206,233	-	13,981	38,344	79,080	152,887	203,761	205,279	206,183	206,233	206,233	206,233	206,233
Sub-Total Production Cost	-	216,225	-	19,122	49,295	97,921	190,600	229,490	205,279	207,370	211,262	217,910	225,189	216,225
OUTFLOWS	-	216,225	-	19,122	49,295	97,921	190,600	229,490	205,279	207,370	211,262	217,910	225,189	216,225
Cash Flow Before Financing	53,425	113,592	-	-10,644	-37,663	-84,328	-194,974	-235,167	-184,024	-107,890	-27,333	28,507	51,204	60,167

IRR = -24.6%, NPV = -114,692.86

Annex-15: Livestock households' subproject, economic

India
OTELP PCR
livestock households subproject Subproject Model

ECONOMIC BUDGET (AGGREGATED) (In INR '000)	May -April													
	Without Project	WP	Increments											
	1 to 20	20	1 to 9	10	11	12	13	14	15	16	17	18	19	20
Main Production														
Livestock products	-	280,345	-	11,040	19,560	30,735	31,077	40,586	63,478	129,969	201,751	254,865	280,345	280,345
Proxy labour value	45,411	-	-	-3,834	-9,673	-19,180	-34,795	-45,411	-45,411	-45,411	-45,411	-45,411	-45,411	-45,411
Sub-total Main Production	45,411	280,345	-	7,207	9,887	11,554	-3,717	-4,825	18,066	84,558	156,340	209,454	234,934	234,934
Production Cost														
Investment														
Goat	-	8,493	-	-	5,936	11,592	31,921	21,870	-	1,009	4,275	9,925	16,112	8,493
Poultry unit	-	-	-	4,370	3,372	4,423	136	-	-	-	-	-	-	-
Sub-total Investment Costs	-	8,493	-	4,370	9,308	16,015	32,056	21,870	-	1,009	4,275	9,925	16,112	8,493
Operating														
Purchased Inputs														
Goat	-	20,990	-	1,342	3,542	7,240	13,865	18,888	20,179	20,948	20,990	20,990	20,990	20,990
Poultry unit	-	8,093	-	2,875	5,094	8,004	8,093	8,093	8,093	8,093	8,093	8,093	8,093	8,093
Sub-Total Purchased Inputs	-	29,083	-	4,217	8,636	15,244	21,958	26,981	28,272	29,041	29,083	29,083	29,083	29,083
Labor														
Farm labour	-	146,215	-	7,667	23,956	51,974	107,996	146,215	146,215	146,215	146,215	146,215	146,215	146,215
Sub-total Operating Costs	-	175,298	-	11,884	32,592	67,218	129,954	173,197	174,487	175,256	175,298	175,298	175,298	175,298
Sub-Total Production Cost	-	183,792	-	16,254	41,900	83,233	162,010	195,067	174,487	176,264	179,573	185,223	191,411	183,792
OUTFLOWS	-	183,792	-	16,254	41,900	83,233	162,010	195,067	174,487	176,264	179,573	185,223	191,411	183,792
Cash Flow	45,411	96,553	-	-9,047	-32,014	-71,679	-165,728	-199,892	-156,421	-91,707	-23,233	24,231	43,523	51,142

IRR = -30.9%, NPV = -217,015.39

Annex-16: Fishpond households' subproject, financial

India
OTELP PCR
Fish pond households subproject Subproject Mo

FINANCIAL BUDGET (AGGREGATED) (In INR '000)	Without Project	WP	Increments									
	1 to 20	1 to 20	1 to 6	7	8	9	10	11	12	13	14	15 to 20
Main Production												
Fish harvested	-	5,486	-	-	1,138	1,526	1,642	3,398	3,730	5,486	5,486	5,486
Proxy labour value	1,524	-	-	-316	-424	-456	-944	-1,036	-1,524	-1,524	-1,524	-1,524
Sub-total Main Production	1,524	5,486	-	-316	714	1,070	698	2,362	2,206	3,962	3,962	3,962
Production Cost												
Investment												
Fish production	-	1,581	-	209	340	411	780	946	1,335	1,481	1,535	1,581
Operating												
Fish production	-	1,829	-	-	379	509	547	1,133	1,243	1,829	1,829	1,829
Sub-Total Production Cost	-	3,410	-	209	719	920	1,327	2,079	2,578	3,310	3,364	3,410
OUTFLOWS	-	3,410	-	209	719	920	1,327	2,079	2,578	3,310	3,364	3,410
Cash Flow Before Financing	1,524	2,076	-	-525	-6	150	-630	284	-373	653	598	552
Net Financing	-	-	-	-438	-179	-84	-690	-176	-731	-54	-46	-
Cash Flow After Financing	1,524	2,076	-	-964	-185	66	-1,320	107	-1,104	598	552	552
Contribution from own savings	-	-	-0	209	72	21	323	61	323	-	-	-
Farm Family Benefits After Financing	1,524	2,076	-	-754	-114	87	-997	168	-781	598	552	552

IRR = 9.6%, NPV = 77.19

Annex-17: Fishpond households' subproject, Economic

India
OTELP PCR
Fish pond households subproject Subpro

ECONOMIC BUDGET (AGGREGATED) (In INR '000)	Without Project	WP	Increments									
	1 to 20	1 to 20	1 to 6	7	8	9	10	11	12	13	14	15 to 20
Main Production												
Fish harvested	-	4,663	-	-	967	1,297	1,395	2,889	3,170	4,663	4,663	4,663
Proxy labour value	1,295	-	-	-269	-360	-388	-802	-881	-1,295	-1,295	-1,295	-1,295
Sub-total Main Production	1,295	4,663	-	-269	607	910	593	2,008	1,875	3,368	3,368	3,368
Production Cost												
Investment												
Fish production	-	1,344	-	178	289	350	663	804	1,135	1,259	1,305	1,344
Operating												
Fish production	-	1,554	-	-	322	432	465	963	1,057	1,554	1,554	1,554
Sub-Total Production Cost	-	2,898	-	178	611	782	1,128	1,767	2,192	2,813	2,860	2,898
OUTFLOWS	-	2,898	-	178	611	782	1,128	1,767	2,192	2,813	2,860	2,898
Cash Flow	1,295	1,765	-	-447	-5	128	-535	241	-317	555	508	470

IRR = 21.9%, NPV = 585.77

Annex-18: IGA & enterprises households' subproject, financial

IGA & enterprises households subproject Subproject Mod — May -April

FINANCIAL BUDGET (DETAILED)
(In INR '000)

	Without Project	Increments								
	1 to 20	15 to 20	1 to 7	8	9	10	11	12	13	14	15 to 20
Main Production											
Grocery shop sales	-	17,500	-	-	125	125	3,250	10,375	17,500	17,500	17,500
Paddy milling	-	2,402	-	1,220	1,885	2,328	2,365	2,402	2,402	2,402	2,402
Flour milling	-	780	-	396	612	756	768	780	780	780	780
Tamarind processing	-	122	-	62	96	118	120	122	122	122	122
Cashew processing	-	58	-	29	45	56	57	58	58	58	58
Sale of Hill brooms	-	140	-	-	1	1	26	83	140	140	140
NTFP value-added products	-	2,240	-	-	8	12	216	772	1,556	2,012	2,240
WOP value of labour	2,090	-	-	-66	-116	-140	-492	-1,292	-2,090	-2,090	-2,090
Sub-total Main Production	2,090	23,242	-	1,641	2,656	3,257	6,310	13,300	20,468	20,924	21,152
Production Cost											
Investment											
Annual purchases	-	12,600	-	-	90	90	2,340	7,470	12,600	12,600	12,600
Paddy milling expenses	-	1,616	-	821	1,268	1,566	1,591	1,616	1,616	1,616	1,616
Flour miling expenses	-	413	-	210	324	401	407	413	413	413	413
Tamarind processing	-	54	-	27	42	52	53	54	54	54	54
Cashew processing expenses	-	33	-	17	26	32	32	33	33	33	33
Sub-total Investment Costs	-	14,716	-	1,074	1,750	2,141	4,423	9,586	14,716	14,716	14,716
Operating											
Purchased Inputs											
Wire, plastics pipes	-	28	-	-	0	0	5	17	28	28	28
drying, making, transport	-	14	-	-	0	0	3	8	14	14	14
Value-addition	-	448	-	-	2	2	43	154	311	402	448
Sub-Total Purchased Inputs	-	490	-	-	2	3	51	179	353	444	490
Hired Labor											
NTFP collection labour	-	1,260	-	-	9	9	234	747	1,260	1,260	1,260
Sub-total Operating Costs	-	1,750	-	-	11	12	285	926	1,613	1,704	1,750
Sub-Total Production Cost	-	16,466	-	1,074	1,761	2,153	4,708	10,512	16,329	16,420	16,466
OUTFLOWS	-	16,466	-	1,074	1,761	2,153	4,708	10,512	16,329	16,420	16,466
Cash Flow Before Financing	2,090	6,776	-	567	895	1,104	1,602	2,788	4,139	4,504	4,686

IRR = None, NPV = 10,689.87

Annex-19: IGA & enterprises households' subproject, economic

IGA & enterprises households subproject Subproje

ECONOMIC BUDGET (DETAILED)

(In INR '000)

	May -April										
	Without Project	Increments									
	1 to 20	WP	1 to 7	8	9	10	11	12	13	14	15 to 20
Main Production											
Grocery shop sales	-	14,875	-	-	106	106	2,763	8,819	14,875	14,875	14,875
Paddy milling	-	2,042	-	1,037	1,602	1,979	2,011	2,042	2,042	2,042	2,042
Flour milling	-	663	-	337	520	643	653	663	663	663	663
Tamarind processing	-	104	-	53	81	100	102	104	104	104	104
Cashew processing	-	49	-	25	39	48	48	49	49	49	49
Sale of Hill brooms	-	119	-	-	1	1	22	71	119	119	119
NTFP value-added products	-	1,904	-	-	7	10	184	656	1,323	1,710	1,904
WOP value of labour	1,777	-	-	-56	-99	-119	-418	-1,098	-1,777	-1,777	-1,777
Sub-total Main Production	1,777	19,756	-	1,395	2,258	2,768	5,364	11,305	17,398	17,786	17,979
Production Cost											
Investment											
Annual purchases	-	10,710	-	-	77	77	1,989	6,350	10,710	10,710	10,710
Paddy milling expenses	-	1,374	-	697	1,078	1,331	1,353	1,374	1,374	1,374	1,374
Flour miling expenses	-	351	-	178	276	341	346	351	351	351	351
Tamarind processing	-	46	-	23	36	44	45	46	46	46	46
Cashew processing expenses	-	28	-	14	22	27	27	28	28	28	28
Sub-total Investment Costs	-	12,509	-	913	1,488	1,820	3,760	8,148	12,509	12,509	12,509
Operating											
Purchased Inputs											
Wire, plastics pipes	-	24	-	-	0	0	4	14	24	24	24
drying, making, transport	-	12	-	-	0	0	2	7	12	12	12
Value-addition	-	381	-	-	1	2	37	131	265	342	381
Sub-Total Purchased Inputs	-	417	-	-	2	2	43	152	300	378	417
Labor											
NTFP collection labour	-	1,071	-	-	8	8	199	635	1,071	1,071	1,071
Sub-total Operating Costs	-	1,488	-	-	9	10	242	787	1,371	1,449	1,488
Sub-Total Production Cost	-	13,996	-	913	1,497	1,830	4,002	8,935	13,880	13,957	13,996
OUTFLOWS	-	13,996	-	913	1,497	1,830	4,002	8,935	13,880	13,957	13,996
Cash Flow	1,777	5,760	-	482	761	939	1,362	2,370	3,518	3,828	3,983

IRR = None, NPV = 8,736.97

Annex-20: Drudgery reducing households' subproject, financial

Drudgery reduction benefits Subproject Model
FINANCIAL BUDGET (DETAILED)
(In INR '000)

	May -April										
	Without Project	With Project					Increments				
	1 to 20	1 to 9	10	11	12	13 to 20	1 to 9	10	11	12	13 to 20
Main Production											
Increased fire-w ood collection	-	-	1,101	22,180	27,080	30,755	-	1,101	22,180	27,080	30,755
Value of firew ood saved	-	-	1,610	32,445	39,613	44,989	-	1,610	32,445	39,613	44,989
Value of labourdays saved	-	-	3,208	64,637	78,917	89,627	-	3,208	64,637	78,917	89,627
Sub-total Main Production	-	-	5,919	119,262	145,610	165,371	-	5,919	119,262	145,610	165,371
Cash Flow Before Financing	-	-	5,919	119,262	145,610	165,371	-	5,919	119,262	145,610	165,371

IRR = None, NPV = 456,303.63

Annex-21: Drudgery reducing households' subproject, economic

Drudgery reduction benefits Subproject Model
ECONOMIC BUDGET (DETAILED)
(In INR '000)

	May -April										
	Without Project	With Project					Increments				
	1 to 20	1 to 9	10	11	12	13 to 20	1 to 9	10	11	12	13 to 20
Main Production											
Increased fire-w ood collection	-	-	936	18,853	23,018	26,141	-	936	18,853	23,018	26,141
Value of firew ood saved	-	-	1,369	27,579	33,671	38,241	-	1,369	27,579	33,671	38,241
Value of labourdays saved	-	-	2,727	54,942	67,080	76,183	-	2,727	54,942	67,080	76,183
Sub-total Main Production	-	-	5,031	101,373	123,769	140,566	-	5,031	101,373	123,769	140,566
Cash Flow	-	-	5,031	101,373	123,769	140,566	-	5,031	101,373	123,769	140,566

IRR = None, NPV = 387,858.08

Annex-22: Dryland agriculture household model, financial (1.04 ha)

OTELP PCR
Dryland farms crop
FINANCIAL BUDGET (AGGREGATED)
(In INR)

	May -April							
	thout Project		With Project			Increments		
	1 to 19	20	1	2 to 19	20	1	2 to 19	20
Main Production								
Cereals, oilseeds & pulses	18,625	18,625	29,666	29,666	29,666	11,041	11,041	11,041
Bye-product	318	318	415	415	415	97	97	97
Vegetables	-	-	8,650	8,650	8,650	8,650	8,650	8,650
Wadi horticulture & spices	-	-	26,240	26,240	26,240	26,240	26,240	26,240
Proxy labour value	870	870	175	175	175	-695	-695	-695
Sub-total Main Production	19,813	19,813	65,146	65,146	65,146	45,333	45,333	45,333
Production Cost								
Investment								
Seeds & planting materials	1,885	1,885	12,185	12,185	12,185	10,300	10,300	10,300
Fertilisers, PP chemicals & compost	-	-	925	925	925	925	925	925
Sub-total Investment Costs	1,885	1,885	13,109	13,109	13,109	11,225	11,225	11,225
Operating								
Farm labour	16,186	16,186	30,540	30,540	30,540	14,354	14,354	14,354
Sub-Total Production Cost	18,071	18,071	43,650	43,650	43,650	25,579	25,579	25,579
OUTFLOWS	18,071	18,071	43,650	43,650	43,650	25,579	25,579	25,579
Cash Flow Before Financing	1,742	1,742	21,496	21,496	21,496	19,754	19,754	19,754

IRR = 339.1%, NPV = 127,364.10

Annex-23: Irrigated agriculture household model, financial (0.5 ha)

India
OTELP PCR
Irrigated farms crop
FINANCIAL BUDGET (AGGREGATED)
(In INR)

	May -April							
	hout Project		With Project			Increments		
	1 to 19	20	1	2 to 19	20	1	2 to 19	20
Main Production								
Cereals, oilseeds & pulses	1,941	1,941	37,877	37,877	37,877	35,936	35,936	35,936
Bye-product	61	61	711	711	711	650	650	650
Vegetables	-	-	121,025	121,025	121,025	121,025	121,025	121,025
Wadi horticulture & spices	-	-	39,040	39,040	39,040	39,040	39,040	39,040
Proxy labour value	250	250	-	-	-	-250	-250	-250
Sub-total Main Production	2,252	2,252	198,653	198,653	198,653	196,402	196,402	196,402
Production Cost								
Investment								
Seeds & planting materials	222	222	16,422	16,422	16,422	16,200	16,200	16,200
Fertilisers, PP chemicals & compost	-	-	4,057	4,057	4,057	4,057	4,057	4,057
Sub-total Investment Costs	222	222	20,479	20,479	20,479	20,257	20,257	20,257
Operating								
Farm labour	1,910	1,910	54,445	54,445	54,445	52,534	52,534	52,534
Sub-Total Production Cost	2,133	2,133	74,924	74,924	74,924	72,791	72,791	72,791
OUTFLOWS	2,133	2,133	74,924	74,924	74,924	72,791	72,791	72,791
Cash Flow Before Financing	119	119	123,729	123,729	123,729	123,611	123,611	123,611

IRR = None, NPV = 885,054.56

Annex-24: WADI household model, financial (0.44 ha)

India
OTELP PCR
Wadi horticulture farms plantation

FINANCIAL BUDGET (AGGREGATED) (In INR)	May -April												
	Without Project	With Project											
	1 to 20	1	2	3	4	5	6	7	8	9	10	11 to 19	20
Main Production													
Wadi horticulture & spices	-	-	-	2,750	10,780	18,810	37,400	53,900	70,400	81,400	92,400	92,400	92,400
Proxy labour value	1,760	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total Main Production	1,760	-	-	2,750	10,780	18,810	37,400	53,900	70,400	81,400	92,400	92,400	92,400
Production Cost													
Investment													
Seeds & planting materials	-	686	69	-	-	-	-	-	-	-	-	-	-
Operating													
Purchased Inputs													
Fertilisers, PP chemicals & compost	-	869	1,024	1,181	1,348	1,504	1,851	1,104	1,269	1,440	1,606	-	-
Labor													
Farm labour	-	12,936	4,840	4,708	5,236	5,984	3,080	3,872	4,840	4,840	4,840	4,840	4,840
Sub-total Operating Costs	-	13,805	5,864	5,889	6,584	7,488	4,931	4,976	6,109	6,280	6,446	4,840	4,840
Sub-Total Production Cost	-	14,492	5,933	5,889	6,584	7,488	4,931	4,976	6,109	6,280	6,446	4,840	4,840
OUTFLOWS	-	14,492	5,933	5,889	6,584	7,488	4,931	4,976	6,109	6,280	6,446	4,840	4,840
Cash Flow Before Financing	1,760	-14,492	-5,933	-3,139	4,196	11,322	32,469	48,924	64,291	75,120	85,954	87,560	87,560

IRR = 45.5%, NPV = 250,116.90

Annex-25: Backyard poultry household model, financial

India
OTELP PCR
Poultry farm Activity
FINANCIAL BUDGET (AGGREGATED)
(In INR)

	May -April						
	Without Project	With Project			Increments		
	1 to 20	1	2 to 19	20	1	2 to 19	20
Main Production							
Livestock products	-	14,400	14,400	14,400	14,400	14,400	14,400
Proxy labour value	5,000	-	-	-	-5,000	-5,000	-5,000
Sub-total Main Production	5,000	14,400	14,400	14,400	9,400	9,400	9,400
Production Cost							
Investment							
Poultry unit	-	5,700	-	-	5,700	-	-
Operating							
Purchased Inputs							
Goat	-	1,750	1,750	1,750	1,750	1,750	1,750
Poultry unit	-	3,750	3,750	3,750	3,750	3,750	3,750
Sub-Total Purchased Inputs	-	5,500	5,500	5,500	5,500	5,500	5,500
Labor							
Farm labour	-	10,000	10,000	10,000	10,000	10,000	10,000
Sub-total Operating Costs	-	15,500	15,500	15,500	15,500	15,500	15,500
Sub-Total Production Cost	-	21,200	15,500	15,500	21,200	15,500	15,500
OUTFLOWS	-	21,200	15,500	15,500	21,200	15,500	15,500
Cash Flow Before Financing	5,000	-6,800	-1,100	-1,100	-11,800	-6,100	-6,100

IRR = -39.4%, NPV = -62,885.34

Annex-26: Goat keeping household model, financial

India
OTELP PCR
Goat farm Activity

FINANCIAL BUDGET (AGGREGATED) (In INR)	Without Project	With Project																May -April
	1 to 20	1	2	3	4	5	6	7	8 to 9	10	11	12	13	14	15	16	17 to 19	20
Main Production																		
Livestock products	-	-	-	-	33,000	48,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000
Proxy labour value	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total Main Production	10,000	-	-	-	33,000	48,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000
Production Cost																		
Investment																		
Goat	-	20,600	-	-	-	-	3,500	8,000	-	-	3,500	-	8,000	-	-	3,500	-	-
Operating																		
Purchased Inputs																		
Goat	-	4,044	4,266	4,932	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972	4,972
Labor																		
Farm labour	-	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000	36,000
Sub-total Operating Costs	-	40,044	40,266	40,932	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972	40,972
Sub-Total Production Cost	-	60,644	40,266	40,932	40,972	40,972	44,472	48,972	40,972	40,972	44,472	40,972	48,972	40,972	40,972	44,472	40,972	40,972
OUTFLOWS	-	60,644	40,266	40,932	40,972	40,972	44,472	48,972	40,972	40,972	44,472	40,972	48,972	40,972	40,972	44,472	40,972	40,972
Cash Flow Before Financing	10,000	-60,644	-40,266	-40,932	-7,972	7,028	27,528	23,028	31,028	31,028	27,528	31,028	23,028	31,028	31,028	27,528	31,028	31,028

IRR = 2.9%, NPV = -113,363.38

Annex-27: Fish pond model, financial

India
OTELP PCR
Fishpond farm activity
FINANCIAL BUDGET (AGGREGATED)
(In INR)

	May -April										
	Without Project	With Project					Increments				
	1 to 20	1	2	3	4 to 19	20	1	2	3	4 to 19	20
Main Production											
Fish	-	-	14,400	14,400	14,400	14,400	-	14,400	14,400	14,400	14,400
Proxy labour value	4,000	-	-	-	-	-	-4,000	-4,000	-4,000	-4,000	-4,000
Sub-total Main Production	4,000	-	14,400	14,400	14,400	14,400	-4,000	10,400	10,400	10,400	10,400
Production Cost											
Investment											
Fish	-	2,650	3,400	3,775	4,150	4,150	2,650	3,400	3,775	4,150	4,150
Operating											
Fish	-	-	4,800	4,800	4,800	4,800	-	4,800	4,800	4,800	4,800
Sub-Total Production Cost	-	2,650	8,200	8,575	8,950	8,950	2,650	8,200	8,575	8,950	8,950
OUTFLOWS	-	2,650	8,200	8,575	8,950	8,950	2,650	8,200	8,575	8,950	8,950
Cash Flow Before Financing	4,000	-2,650	6,200	5,825	5,450	5,450	-6,650	2,200	1,825	1,450	1,450

IRR = 9.2%, NPV = -2,496.11

Annex-28: IGA household model, financial

India
OTELP PCR
IGA households Activity
FINANCIAL BUDGET (AGGREGATED)
(In INR)

	May -April								
	Without Project	With Project				Increments			
	1 to 20	1	2	3 to 19	20	1	2	3 to 19	20
Main Production									
IGA	-	9,000	13,000	17,000	17,000	9,000	13,000	17,000	17,000
Proxy labour value	9,000	-	-	-	-	-9,000	-9,000	-9,000	-9,000
Sub-total Main Production	9,000	9,000	13,000	17,000	17,000	-	4,000	8,000	8,000
Production Cost									
Purchased Inputs									
IGA inputs	-	1,900	2,700	3,500	3,500	1,900	2,700	3,500	3,500
Labor									
Farm labour	-	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Sub-Total Production Cost	-	10,900	11,700	12,500	12,500	10,900	11,700	12,500	12,500
OUTFLOWS	-	10,900	11,700	12,500	12,500	10,900	11,700	12,500	12,500
Cash Flow Before Financing	9,000	-1,900	1,300	4,500	4,500	-10,900	-7,700	-4,500	-4,500

Annex-29: Micro-enterprises household model, financial

Micro-enterprises activity
FINANCIAL BUDGET (DETAILED)
(In INR)

	May -April		
	Without Project	With Project	Increments
	1 to 20	1 to 20	1 to 20
Main Production			
Grocery shop sales	-	125,000	125,000
WOP value of labour	5,000	-	-5,000
Sub-total Main Production	5,000	125,000	120,000
Production Cost			
Annual purchases	-	90,000	90,000
OUTFLOWS	-	90,000	90,000
Cash Flow Before Financing	5,000	35,000	30,000

IRR = None, NPV = 224,083.31

Annex-30 Processing unit model

Processing units activity
FINANCIAL BUDGET (DETAILED)
(In INR)

	May -April		
	Without Project	With Project	Increments
	1 to 20	1 to 20	1 to 20
Main Production			
Paddy milling	-	36,960	36,960
Flour milling	-	12,000	12,000
Tamarind processing	-	1,875	1,875
Cashew processing	-	891	891
WOP value of labour	2,000	-	-2,000
Sub-total Main Production	2,000	51,726	49,726
Production Cost			
Paddy milling expenses	-	24,864	24,864
Flour miling expenses	-	6,360	6,360
Tamarind processing	-	829	829
Cashew processing expenses	-	501	501
Sub-Total Production Cost	-	32,554	32,554
OUTFLOWS	-	32,554	32,554
Cash Flow Before Financing	2,000	19,172	17,172

IRR = None, NPV = 128,267.15

Appendix-11: Environmental assessment

Potential Environmental Impact and Concerns

OTELP had been classified as an IFAD category B project as the Programme was expected to have positive environmental impacts. These expectations have been largely validated in the course of project implementation.

Overall, the project has adopted an environmentally sensitive programming and implementation approach to the components and the activities, which inherently have positive environmental impacts. In the course of land and water resource development activities, the project activities have contributed to improving the overall quality of natural assets through support for land development, soil and water conservation, use of water resources through irrigation development, horticulture, introduction of legumes, replacement of upland paddy with tubers and millets and afforestation. The effects component-wise are described below.

Capacity Building for Empowerment: The Community Based Organisations promoted by OTELP, such as SHGs, VDA, VDC, etc. have created platforms for women to have a voice in village development activities, reduced their isolation, given them control over financial assets. The communities as a whole have new institutions through which they can plan and implement development activities transparently, access government programmes and participate more effectively in local governance. The project promoted participatory planning, implementation and review. The overall impact has been highly positive for women in particular and the tribal households in general. The presence of CBOs and extensive training and capacity building inputs provided to the CBO leaders and the beneficiaries will contribute to sustainability of the interventions.

Livelihoods Enhancement: The component comprised of land and water development, which has the largest share of allocations, productivity enhancement and rural financial services. Land and water resource development activities, such as construction of field bunds, check dams, percolation ponds, rainwater harvesting ponds, gully control structures, contour trenches, afforestation, etc. have reduced rainwater run-off, reduced soil erosion and enhanced groundwater percolation and overall water availability. Degraded land has been made arable and vulnerability against monsoon rain failure has been reduced. The physical interventions (various conservation structures) have been planned and implemented taking into account the fragility of the terrain. Irrigation has been promoted to enhance water and land productivity, reduce pressure on fragile uplands and increase crop intensity. Drip irrigation has been promoted to enhance water use efficiency and water productivity.

Training activities concerning land and water development and productivity enhancement included concerns about the environment and emphasized use of organic manure, land levelling, field bunds, cultivation of legumes, proper ploughing techniques, etc. Productivity enhancement and livelihood activities have focused on diversifying land use, improved farming technologies, introduction of legumes and millets on uplands, organic farming and use of composts. Introduction of horticulture and forestry will reduce soil erosion and degradation as the terrain, especially the sloping areas, are more suited to tree crops. Tree crops also are more resilient to climate change. In case of livestock

based livelihoods, goat rearing and backyard poultry as traditional activities among tribal people have been supported with better rearing infrastructure, better rearing stock and veterinary care to enhance productivity.

Development Initiatives Fund: The project has promoted drinking water supply systems and constructed low cost toilets besides promoting various income generating activities. These improve the overall sanitation in the villages besides reducing women's drudgery. Smokeless cook stoves reduce health hazards for tribal households, especially for women, and reduce women's drudgery.

Support for Policy Initiatives: Under this component, the project has facilitated grant of house sites, grant of legal tenure under FRA and distribution of farm land to landless households. The project has also supported titles for communities to manage village forests using the provisions of FRA. These will, besides providing security of tenure to the beneficiaries, also improve the management of the land as land earlier left fallow will be used for settled cultivation. The project has assisted beneficiaries to develop these lands.

Environmental and Social Assessment Checklist

Actions Affecting Environmental Resource Values of the project	Environmental Impact (Negative, positive, small, etc.)	Mitigation measures under OTELP	Comments
Relocation or migration of people	Positive		As reported in an impact study in 2010, overall migration declined from 16.6% at base line to 11.6%. and at completion it is 4.3%
Disruption of existing social systems	Positive		The promotion of various CBOs broadened participation in village development activities and led to empowerment of women.
Damage to historic sites	None		No historical sites were affected.
Inadequate resources to meet demands	Negative	Convergence with government programmes and inclusion in OTELP Plus	The programme budget was limited with respect to the requirements of natural resource development and livelihood development and the project has brought out convergence with government programmes to augment resources. The GoO has included the project villages in OPTELP Plus.
Local disputes between communities or stakeholders disagreements due to project interventions	None		The project followed an inclusive approach and a participatory process of planning and implementation
Public health or safety concerns, such as dust	Positive		Increased access to safe drinking water, toilets and smokeless cook stoves would have positive impact on public health
Increased workload of local communities or subgroups, especially women	Positive		Access to drinking water and rice hullers has reduced women's workload; introduction of small farm equipment has reduced work load in agriculture
Impact on traditional practices or agricultural systems in the area	Positive		More productive farming and livestock techniques have built on existing techniques, leading to higher yields

Introduction, continued existence, or spread of non-native invasive species	None		No such species have been introduced
Soil erosion or land degradation	Positive		Land and water development activities have reduced erosion and degradation of soils
Felling of trees/forest clearing	Positive		The project have promoted plantation of trees in community forests, on farm bunds and backyards
Pollution by pesticides and/or other agro-chemicals	Positive		Project has promoted organic farming techniques and not introduced pesticides
Effect on downstream water use	Positive		Land and water development activities have increased rainwater retention in the watersheds which would lead to ground water recharge and increased round-the-year water availability locally and downstream

Actions Affecting Environmental Resource Values of the project	Environmental Impact (Negative, positive, small, etc.)	Mitigation measures under OTELP	Comments
Disruption of existing water courses	None		There has not been any major intervention in water courses
Lack of tenancy rights	Positive		The project has facilitated grant of land titles and distribution of land under FRA and GoO policies
Obstruction to grazing sites	None		Status of grazing areas has not changed
Adverse impact on biophysical resources through NWFP related activities	Positive		Development of Forests under Joint Forest Management will increase NWFP availability
Human-wildlife conflict	None		Wildlife habitat was not disturbed in the course of or as a result of project implementation
Economic and social evaluations	None		No invasive evaluations were carried out.

Appendix-12: Stakeholders' workshop findings

1. A stakeholders' workshop was organised on 29 June 2016 at Hotel Marian, Bhubaneswar. It was attended by a large number of participants comprising (i) 6 experts from IFAD including the CPM, (ii) 20 PD, staff personnel and officers from PSU, OTELP and other representatives form the line departments, (iii) 18 representatives form 7 ITDAs, and 17 representatives from Micro-project Agencies for the PVTGs (iv) 22 representatives from participating NGOs and (v) 8 representatives from the beneficiaries. The workshop agenda and List of persons attended the workshop are given separately at the end of this text.

2. At the outset Programme Director, OTELP, Mr Srikanta Prusty welcomed the members of the IFAD mission, representatives from line departments, Project administrators of ITDAs, Special Officers from Micro Project Agencies (MPA), SMSs from PSU & ITDAs, representatives from facilitating NGOs and the community members. He further stated that the journey of OTELP started after the loan agreement in 2003, continued in 3 phases and closed on 31st March, 2016. The programme was implemented with a noble mission for improving the livelihoods of the Tribal in the south-western belt of Odisha. The programme implementation was supervised by UNOPS and IFAD supervision missions. OTELP had two mid-term reviews and 13 Joint Review Missions, Financial Review Mission etc.

3. The Project Director further mentioned, "the goal of OTELP was 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/non-farm enterprises. A process of success and challenges has reformed the programme and enabled the PSU to deliver better and sustainable results over the years. We have now reached a point where we can start to analyse and synthesize the experience of programme and talk about the next steps. Today's workshop is truly a platform at this crucial juncture to share knowledge, highlight success stories and provide all the stakeholders a way out to encounter the upcoming challenges in the days to come. It is a tribute to OTELP that the Government of Odisha after having seen the success of the programme, it has up scaled it as OTELP Plus and launched a new programme, OPELIP, for the benefit and welfare of the Particularly Vulnerable Tribal Groups in Odisha with the financial support of IFAD.

4. The Programme Director further mentioned that as a flagship programme, OTELP has been rated as one of the best performing, donor-funded projects in one of India's poorest states. The key to the success has been (i) the unique GO-NGO partnership model; (ii) funds reaching directly the village development committees, (iii) planning, execution, evaluation carried out by the village communities, (iv) thrust on community empowerment through capacity building, and (v) dedicated team of professionals reaching out the community directly

5. The Programme Director outlined on the schedule of the daylong workshop and has requested all the participants to proactively take part in the discussions to make this workshop a success.

6. In her introductory remarks, Ms Rasha Omar, Country Portfolio Manager for India, IFAD, thanked all esteemed members who came over to this workshop. She also thanked the Government of India, Govt of Odisha & ST & SC Development Department and OTELP team for conducting the Stakeholders Workshop. She also mentioned the long term association of IFAD with Govt. of Odisha since the implementation of tribal project way back in late 90's. She stressed the following aspects that are critical to the development of tribal in the state:

- Balancing between software & hardware-For the tribal dominated population, it is imperative to equally think of capacitating the community through education, empowerment through training, exposure visits etc. before any physical interventions that are likely to be done in terms of community infrastructure, drinking water etc.
- Inclusive process- Unlike other projects, the programme designed for tribal should keep in view of the cohesiveness, building of trust, and community's ownership of assets. These happened in OTELP only because of the uniqueness of the community-driven programme i.e. starting from the planning process to monitoring, the entire system managed by them. The quantum of convergence and up scaling of OTELP Plus is much appreciable.
- Women Empowerment-The programme ensured women participation which was quite challenging. The self help groups nurtured through the programme witnessed a transformation in the form greater voice, greater mobility, and reduced violence.
- Policy Environment-The outcome of the programme underpinned the need for policies considering the balance between development and cultural aspects of the participating communities. In this respect, the shift from joint management of forestry resources, to participatory management of forest resources then to community forestry, created new opportunities and challenges and it will be useful today to see how the resources OTELP deployed for land titling of homestead, farm land and community land contributed to the holistic management of the land and water resources.
- Continuity, Competence and Stability-These were the key ingredients for the success of OTELP that engaged the tribal communities over the longer term, where confidence building takes time. It is learned that each such new project requires handholding especially in the starting stage and this puts the onus on the State Government and IFAD to ensure that competent project teams are deployed right from the beginning of the project.

7. She also requested the MPA representatives in charge of implementing OPELIP to capitalize on OTELP experiences and carry these forward in the implementation of the new OPELIP project which is even more challenging.

8. Mr Goutam Mohanty, Additional Programme Officer (PM & E) of PSU, OTELP presented the journey of OTELP since its inception of the programme. The presentation broadly covered the following points:

- Objectives of the programme
- Programme Component
- Operational areas
- Key important dates
- Project Cost & Component wise allocation
- Unique features of the programme
- Institutional arrangements
- Component wise major output
- Major outcome & impact
- Lessons learnt and
- Limitation of the programme

9. After the above presentation by PSU, there was a short open house discussion on various issues as raised by the gathering.

10. Mr. A.M.Alam, IFAD Consultant & Mission Leader of Project Completion Report Validation Mission in his initial address briefed about the purpose of the review before the closing of project & necessity of such a stakeholders' workshop. He outlined on the requirement of performance assessment indicators that mean to IFAD. With a short introduction about OTELP, he presented the changing scenario of households in programme villages. He also briefly presented key lesson learnt that are useful for future projects in the state and elsewhere. He outlined a list of key lessons that have implications to the new, programme assisted by IFAD in association with Govt. of Odisha i.e. OPELIP. In other words, the lessons from OTELP vis-a-vis their adoption in OPELIP were explained.

11. All the participants in the workshop were divided into 4 Groups. Mr. Deep Joshi, IFAD Consultant & Mission Member explained the groups about the aspects to be discussed by each group, points to be noted and presented by the respective group leaders.

12. In the post lunch session the community members hailing from programme villages shared their experience being the witness of OTELP as the change agent. The community members invited included a mix of representatives i.e. SHG member, Community Service Provider, VDC President, Secretary, federation member from different programme districts.

13. The four different groups presented on various themes allotted to each group which are as follows:

1. Relevance & Efficiency
2. Effectiveness & Impact
3. Targeting & Sustainability and
4. Scaling Up & Innovation

14. The findings of the four groups are presented in Annex-2. After the group presentation, the

house was open for discussion. Feedback & suggestions on the issues raised by the participants were noted. During the interaction session with various stakeholders, various issues were discussed along with suggestions, ideas, problems faced at different levels with a possible alternative or solution.

15. In his remarks, Mr Srikanta Prusty, Project Director, OTELP presented the programme's key achievements. He suggested that all good initiatives as well as the failures have to be recorded for future learning. He thanked all for their participation.

16. In her concluding remarks, Mr Rasha Omar, IFAD CPM for India thanked the officials of Govt. of India, Govt. of Odisha for their long association with IFAD and the Programme Director for his co-operation and support for conducting the workshop. She hoped that the key lessons would be carried forward for future programmes in the state and elsewhere in India.

The Stakeholders' meeting ended with a vote of thanks by Mr Dipti Ranjan, PO(CB), PSU, OTELP on behalf of the OTELP Team.

Annex-1: List of Participants of the Stakeholders' Workshop

	Name	Designation	Phone No.
IFAD Mission			
1	Ms Rasha Omar	Country Representative for India, IFAD	
2	Vincent Darlong	Country Programme Officer, ICO, IFAD	
3	S. Sriram	Programme Support Analyst, IFAD ICO	
4	Yuka Irie	Associate Professional Officer, F & AO	
5	A M Alam	IFAD Consultant & Mission Leader, PCR validation Mission	
6	Deep Joshi	IFAD Consultant & Mission Member, PCR validation Mission	
PROGRAMME SUPPORT UNIT, OTELP, BHUBANESWAR			
7	Srikanta Prusty	PD, PSU, OTELP	9437180410
8	CA Suhas Dey	CFO, PSU, OTELP	8895274569
9	Dipti Ranjan Gantayat	PO(CB), OTELP	8895274564
10	M R Mangaraj	GIS, PSU, OTELP	8763235312
11	Pradipta Ku Mohanty	Livelihood Expert, PSU, OTELP	9937040563
12	Goutam Ku Mohanty	Addl.PO(PME), PSU, OTELP	8763968236
13	Kalyani Mishra	PO(PME), PSU, OTELP	9437991371
14	Sukanta Ku Mohapatra	MIS Executive, PSU, OTELP	8895274561
15	Dr. K.K.Parida	Livestock Expert	9437040563
16	Prasanna Kumar Dalbehera	Programme Officer(L & NRM)	9437296565
INTEGRATED TRIBAL DEVELOPMENT AGENCIES			
17	Parikshit Sethi	PA, ITDA, Gajapati	9437222714
18	Karunakar Raikia	PA, ITDA, Gunupur	9437338926
19	Rupesh Ku Mohanty	AO, OTELP, Gunupur	9438771528
20	Jayaprakash Baral	MIS Executive, Gunupur	9438747037
21	Ramesh Ch Behera	PA, ITDA, Balliguda	9437161612
22	Sanjib Ku Sahoo	PO(PME), Balliguda	9437091274
23	Sambit Naik	PO(CB), ITDA, Balliguda	9438424999
24	Subhakanta Mishra	PO(CB), ITDA, Th.Rampur	8895920810
25	Paresh Ku Behera	PO(CB), Paralakhemundi	8895508586
26	Girija Bhusan Mishra	FO, ITDA,Paralakhemundi	9438575944
27	Rajesh Roshan Pattnaik	PO(CB), ITDA, Malkanagiri	9439023383
28	Siba Samkar Takri	PO(PME), ITDA, Malkanagiri	9439285582
29	Kiran Ch Padhy	WDO, ITDA,Nawarangapur	9437323153
30	Jyotirmaya Patra	MFO, OTELP, ITDA, Nawarangpur	9437373001
31	Subhendu Ku Dhal	PO(CB), ITDA, Nawarangpur	9437038864
32	Manoranjan Naik	PA, ITDA, Koraput	9437084242
33	Ananda pradhan	POCB , ITDA, Koraput	9438292335
34	Soumya Ranjan Swain	PO(PME), ITDA, Koraput	9435861518
MICRO-PROJECT AREA (OPELIP)			
35	Pitamber Nayak	SO, DDA, KudmulGuma	9777154675
36	Amitav Mohanty	SO, TDA, Tumba	9439958211
37	Biswa Sahoo	SO, JDA, Gunika	9437066205
38	S N P Kar	Field Asst., DKDA, Parsali	9437062570
39	R Ch Behera	SO, KKDA, Lanjigada	9439897818
40	M Niaj	SO, KKDA, Belgarh	9439400326
41	Prasanna Ku Das	SO, LSDA, Serango, Gajapati	9439882104
42	Sanatan Naik	SO, DKDA, Parsali	9437942020
43	Jhasaketan Kisku	JE, SDA, Chandragiri	8763409018
44	Nanda Lal Biswal	SO, LSDA, Putasing	9437327907
45	Basanta Ku Sethy	SO, CBDA, Sunabeda	9437139790
46	Bhagirathi Sahoo	WEO, DKDA, Chatikana	8893187194
47	Karu Soren	SO, LDA, Morada	9437856776
48	Uttam Ku Mohanty	SO, PBDA, Khuntagaon	9437145784
49	Jagannath Soren	SO, DKDA, Chatikana, Rayagada	9437215462
50	Bishnu Mohanty	SO, PBDA Rayagada	7077537205
51	H Mongaraj	SO, HKMDA, Jashipur	9438043594

	Name	Designation	Phone No.
Other Department Officials			
52	A C Mohanty	Dy Scy Forest & En. Dept	9861214175
53	Rameshwar Sahoo	Director, FNGO LAVS	9437915481
54	Sanghamitra Das	Asst. Director SCST RTI	9556237626
55	S M Alli	Executive Asst. to Director Watershed	9861402169
56	J N Sadangi	Joint Secy, PanchayatiRaj	9437153712
57	Gangadhar Mohanty	Deputy Secy, R&DM	9438248157
58	Gangadhar Das	Joint Secy, Dept of Agriculture	9437934987
59	Soumyajit Rout	Under Secy. Finance Dept.	9437666671
60	Sujoy Kar	OLM, BBSR	9438251252
61	A.K Mishra	Addl.Secretary P&C Dept.	9437558318
NGOs			
62	Lambodar Pradan	Team Leader, FNGO, IRDMS, Papadahandi	8895749138
63	Ramesh Ch Swain	CYSD, Koraput	9438349129
64	Pradeep Ku Mishra	FNGO, FES, Koraput	9437100208
65	Surendra Panda	Team Leader, SWWS, R.Udayagiri	9437750449
66	Manga Pouha	Project Leader	9437586355
67	Duryodhan Mallik	Team Leader, Gram Vikas, Mohana	9437521404
68	Kailash Das	Team Leader, SWATI, Tumudibandha	9438406188
69	Surbanta Ku Sahoo	Executive, PRADAN	9437061016
70	Krushna Ch Mallik	Sampadak, VDC	8763621611
71	Debananda Das	Team Leader, Jagruti	9438457492
72	Asutosh Samal	Social Expert & ME, Th.Rampur	9938679800
73	Sabita Samantray	FNGO Rep. HARMONY	9437339506
74	Lokanath Pradan	Team Leader, FARR, Muniguda	7205812998
75	Pramila Swain	FARR, Muniguda	9437013014
76	Durga Madhab Panda	Secretary JKP	9437012921
77	Beauty kumari limma	Expert Social Team Leader,JKP	
78	Suresh kumar Panda	Representative,TSRD KPT	9438377555
79	Akhil Ranjan	Secy SHAKTI, Rayagada	9439530796
80	A Jagannath Raju	Secy, CCD	9437062516
81	Shakti Ku Gula	CCD,Gajapati	8895957733
82	Debasis Pati	Coordinator Harsha	9437757741
83	Ramahari Bal	Team Leader, Paribartan	9668689210
Community Leaders			
84	Sunadhara Hatai	Village Leader, Kudmulguma	
85	Daru Sika	SHG Member, Brahmanigaon	
86	Sikai Kurmadi	SHG Member, Sukata	9437013091
87	K CH.Patra	Secretary	
88	Nilamani Das	Field Asst. NKM	9438614120
89	Kapleswar Patra	Field Facilitator, ITDA, Th.Rampur	8280159185
90	Narsingha Soni	Community Service Provider	9937063635
91	Jebanti Pradani	SHG Member, R.Udayagiri, Gajapati	9437750449

Annex-2: Recommendations of Workshop Groups

Group	Themes assigned	Recommendation	Comments
Group one	Relevance	• In the absence of any structured institutions for helping the tribal, establishment and supporting such community-based institutions like, SHGs, VDCs, user groups and federations for SHGs were relevant to the communities, and are in consistence with the policies of GOO and GOI; • Likewise several of OTELP interventions covering such area as watershed development, land and water management, agriculture and wadi-based horticulture planting, more importantly land alienation and land titles were very much relevant to the communities; • in the absence of any government schemes facilities and support provided under community infrastructure and DIF were relevant to the project area and the participating communities.	SHGs need to be linked with OLM; Communities must ensure all infrastructure works are properly maintained
	Efficiency	• Small credit needs of the women members of SHGs met and exploitation by money-lenders significantly reduced; • All community-based institutions were substantially capacitated and empowered; • Overall productivity increased, in particular crops, livestock, horticulture, cash crops and access to markets increased; • Irrigated area increased by several folds and their user groups capacitated for on-farm water management; • In view of increased land-based activities including wadi plantation, dependency of the communities on NTFP reduced significantly; • Out-migration reduced significantly; • Overall households' incomes increased.	All groups operating the fish ponds and IGA processing units need support; All VDCs need adequate administrative provisions; Staff friendly HR policies should have been in place
Group Two	Effectiveness:		
	Capacity Building	• CBOs strengthened • Skill upgrading	Increased access to formal credit Greater participation of women with decision making ability Enhanced livelihood activities.
	Land & Water Management	• Non arable land converted to arable land. • Increase in ground water level. • Reduction in soil erosion	Vegetative coverage increased. Adoption of double cropping. Increased soil fertility and productivity. Food security ensured.

Group	Themes assigned	Recommendation	Comments
	Off farm activities	• Alternative source of livelihood like poultry, goat-keeping, grocery	Reduced labour migration. Single women destitute , orphans incomes increased
	Food security	• Minimum food requirement ensured	Reduction of starvation; Decrease in overall malnutrition. Increased in school enrollment.
	Coordination with Govt. Institutions	• Linkages with Govt. Institutions increased • Better service deliver • Landless provided land rights	Awareness and availability of Govt. schemes/ facilities Strengthened association with PRI members.
	Technology Intervention Based on Indigenes Knowledge	• Productivity enhanced through technology merged with traditional knowledge/ resources i.e. DBIs, Goatery, poultry etc	Additional source of income ensured. Learning effective management of Natural Resources.
	Coordination with Govt. Institutions	• Linkages with Govt. Institutions at different levels • Better service delivery • Provided land to landless under land rights	Awareness and availability of Govt. schemes/ facilities Strengthened association with PRI members.
	Technology Intervention Based on Indigenes Knowledge	• Productivity enhanced through technology merged with traditional knowledge/ resources i.e. DBIs, Improved Goatery, Poultry	Additional source of income ensured. Learning effective management of Natural Resources.
	Impact	• More children attending school • Increased institutional delivery • Increase in immunization. • Better village hygiene/ sanitation • Availability of safe drinking water within reach • Increased women participation in decision making process • Enhanced sustainable livelihood of target group • Decreased migration of agriculture labourers • Change in food habits	
Group Three	**Targeting**	• Project Focus on Tribal and the poor • Target based on Nature of Intervention • Community – Need based Planning (VDLP) • Individual – Selection through well being ranking V1 V2 V3 V4 • Process of Inclusive Participation • Focused on V4 & V3 category • Support based on skill & capability	The poor outside the micro-watershed but in same villages were left out

Group	Themes assigned	Recommendation	Comments
		• Interventions also targeted	
	Group-based targeting	• Drinking water schemes • Watershed treatment, • Check dams, DBIs, WHSs, percolation ponds, fish-ponds, lift irrigation schemes, etc • Drying flat-forms • Processing units • Land to the landless • Community forestry under FRA	Community owned the O&M arrangements in particular for the water supply schemes; For all other works such ownership
	Individual targeting	• Wadi-horticulture plots • Crop demonstrations • Small-scale irrigation lifts • Smoke-less wood stoves • Support to ultra poor and poor households • Goatery & Poultry units • Economic units to unemployed youths etc.	Crop demonstrations were not carried forward systematically and adoption rates were poor
	Sustainability	Social Capital • Strengthening of CBOs • Fund mobilization by VDC(other schemes) • Credit linkages • Cadres development • Involvement of stakeholders participation Physical Asset • Provision of Village Development Fund • UGs – People's contribution • Handed over Asset to concerned Line Departments • Good learning Environmental Sustainability • Conservation & Protection of Forest/ Afforestation • Conservation of soil & water • Introduction of smokeless chulla to reduce Health Hazards	Access to resources but no control; Inadequate forward and backward linkages; Limited ownership of natural resources; Inadequate training to people's organizations; Inadequate support to entrepreneurship: Limited convergence with Odisha Livelihoods Mission;
Group Four	Innovations	OTELP itself is an innovative model in many folds: Its project design (GO, NGO, Communities), Stakeholders • Different best practices taken up in OTELP: • Drinking Water & Sanitation; • User groups for sustainable development • Diversion-based irrigation schemes, • Improved Poultry and Goatery • Pico-Hydro Electricity Projects • Auto Rickshaw support to skilled youth	

Group	Themes assigned	Recommendation	Comments
	Scaling up	Convergence • Creation of Tribal Ambassadors/Volunteers in different field as part of entry point activities such as Agriculture, Horticulture and Services sector (Masons, Electricians, Plumbers, Tailoring, Drivers) would be effective; • Convergence must be part and parcel of the programme since beginning; • Specific duties & responsibilities of different line department as well as financial implications should be well-defined. • Provision under different skills and potential for development in different sectors should be well-defined; • Creation of Federation of each activity for better interaction & sustainability. • Creation of social media group for effective community participation • Programme Management: Long term staffing structure with accountability	

Appendix-13: Final wrap up meeting minutes

MINUTES OF THE WRAP UP MEETING OF IFAD PROJECT COMPLETION REPORT (PCR) VALIDATION MISSION 2016 ON 04.07.2016 AT 12.30 P.M. IN THE ST & SC DEVELOPMENT DEPARTMENT, SECRETARIAT

1. Meeting was chaired by Mr. Surendra Kumar, IAS, Commissioner-cum-Secretary to Govt of Odisha, ST & SC Development Department & Chairman, OTELP.
2. List of attendants in the Annex 1 (below).
3. The Chair opened the meeting with a welcome note.
4. Ms Rasha Omar, Country Representative, IFAD reciprocated with appreciation to all, particularly to Govt of Odisha and the team of OTELP, and for organising the PCR meeting, which has a special significance to present the overall finding of IFAD mission that has supported the project to re-work the PCR.
5. Mr. A.M. Alam, IFAD Consultant & Mission Leader made a brief PowerPoint presentation highlighting the followings, among others:
   - PCR purpose and key performance achievements and results.
   - Key lessons learned – such as challenges in data management for long-duration project coupled with HR issues; project implementation without hindrance under LWE conditions (due to special features of the project around empowerment, participation, equity & decentralisation); importance of partnership with NGOs in project success; investment for different project components but the need to focus more on tribal livelihoods; focus on women and community procurement as important elements in the project.
   - Best practices of OTELP that could be dovetailed in OPELIP (some features already incorporated in the OPELIP project design).
6. The presentation followed a brief discussion on next steps as well as what/how OPELIP could benefit from OTELP's completion experiences:

(a) Next steps in terms of completion and submission of PCR report:

- PCR final report to be submitted by 31st July 2016.
- All audit relating to OTELP to be completed before loan closure of 30th September and Withdrawal Application to be submitted before the closure date.
- The project will revisit some of the remaining gaps in terms of coherent data in consultation with IFAD mission.
- PD OTELP will follow up with Govt of Odisha Finance Dept on the proposed impact study of OTELP.

(b)Lessons for OPELIP:

- Need for ensuring selection and engagement of NGOs including National level NGOs.

MPA to be implementing agency for OLM in MPA areas. The ToRs for the staff to be formulated based on a proposal from IFAD. The strengthening of MPA will follow the

model adopted for the ITDA in OTELP.

- OPELIP PMU to be set up soon to have synergy with OTELP Plus as continuing efforts towards exchange of cross-cutting leaning processes.

(c)Lessons for OTELP Plus:

- Need for actively engaging with OLM to link the SHGs under OTELP with OLM as part of exit strategy of OTELP.
- Ensure OTELP Plus has work plan separately for Phase I, Phase II and new project areas for better implementation of exit strategy.
- The PCR validation mission will recommend certain thematic studies that could document in some detail the outcomes from OTELP and that would be useful for the implementation of OPELIP. These studies would be funded under OPELIP and therefore included in the project first annual work plan and budget.

7. The meeting ended with thanks to the Chair.

Commissioner-cum-Secretary,
ST & SC Development Department

Annex 1.

List of participants in the meeting

1. Shri S. Kumar, IAS, Commissioner-cum-Secretary to Govt, ST & SC Development Department, Odisha & Chairman, OTELP.
2. Shri R. Raghu Prasad, IFS, Director (ST) & Special Secretary, SSD Development Dept
3. Shri Srikanta Prusty, IAS, PD, OTELP & OPELIP.
4. Shri Pabitra Mandal, Additional Secretary, SSC Dev Dep.
5. Shri G.C. Panda, OFS, FA cum Additional Secretary, SSC Dev Dep.
6. Shri Hemanta Kumar Panda, Director, (Technical), Soil Conservation
7. Shri S. Rout, Under Secretary, Finance Department
8. Shri G. Mohanty, Deputy Secretary, Revenue & Disaster Management Dept.
9. Shri A.K. Mishra, Director (DF&C) cum Additional Secretary, P&C Dept
10. Shri A. Mohanty, Deputy Secretary, Forest & Environment
11. Shri Sukanta Mohapatra, MIS Officer, OTELP
12. Ms Rasha Omar, Country Representative, IFAD
13. Shri A.M. Alam, IFAD Consultant, Mission Leader
14. Shri Deep Joshi, IFAD Consultant
15. Ms Yuka Irie, Associate Professional Officer, FAO, Rome
16. Shri S. Sriram, IFAD ICO
17. Shri Vincent Darlong, Country Project Officer, IFAD ICO

Appendix-14 Case Studies

1. Livelihood improvement through ginger cultivation

Most of the programme areas are agro-climatically suitable for ginger cultivation and many farmers do indeed cultivate ginger as a cash crop. However, the traditional varieties cultivated have low yields and fetch low prices because of high fibre content. With the assistance from the Rastriya Krishi Vikas Yojana, an agriculture development programme of the Government of India, the programme introduced Suprava, a new variety of ginger developed by the Orissa University of Agriculture and Technology. The Suprava variety has lower fibre content, higher essential oil content and higher yield. The programme supplied 7.2 tons of Suprava verity of ginger rhizomes as planting material to 400 farmers in OTELP villages of R. Udayagiri block of Gajapati district during May and June 2012 areas @ 18 kg per farmers, including 23 farmers from Raibada VLSC of Rubudinala VDC, under Sialilati panchaya for multiplication.

The farmers were imparted training on improve practices of ginger cultivation i.e. seed treatment, spacing between row to row and plant to plant, application of bio-fertiliser, cultivation in raised bed, mulching, top dressing with fertiliser at 45 days to promote tillering, top dressing at 90 days for growth of rhizomes and control measure against diseases and pests.

The crop was harvested in February 2013. To ascertain yields, crop cutting was done in Raibada village in present of VDC members, other farmers, agronomists and SMSs of OTELP, Pralakhemundi. The yield recorded was 12.50 ton/ha. The farmers earned a net income of INR 3 500 to INR 4 500 from one-fourth of an acre of ginger cultivated.

The VDC has preserved the seed of the new variety so that farmers in subsequent years are able to continue with cultivation of the new varieties without depending on the project.

2. SHG a platform to help women realise their potential

Maa Mangala SHG is one of the Self Help Groups of Kalakupa Village in Lanjigarh block of Kalahandi District, formed in 2005 with 11 tribal women. The women were very reluctant initially to form the group, apprehending that the group promoters would dupe them and take away their savings. The group was formed and began regular meetings and savings after much persuasion by the FNGO Gram Vikas and OTELP staff who patiently explained the concept of the SHG to the women. However, the group broke up soon. It took much persuasion by the FNG and OTEL staff with individual women and the entire group to revive the SHG. Group members and leaders were trained in the concept of SHG, its purpose and in various livelihood activities. The SHG began to conduct regular meetings, chose two members as president and secretary, respectively, by consensus, began saving regularly and also began to lend the pooled funds to members.

Apart from internal saving and lending, group members began to take up small income generating activities as individuals as well as a group. With the facilitation of the FNGO, the group then entered into a contract with the education department to manage the mid-day meal programme at the village school. This has been a success and the group continues to do it profitably while ensuring that the school children get hygienic and nutritious hot meals.

Once the group had stabilised and met the criteria for the grant of seed money, OTELP provided the group seed money of INR .5 000 as per the design of the programme. With an enhanced corpus, group members began to expand individual as well as group activities for income

generation. Members took up rearing goats with funds borrowed from the group as an individual income generating activity. The group as a whole cultivated sunflower in 4 acres, onion in half an acre, chick pea in 0.8 acre and maize in 0.8 acre of land. With the experience and the confidence the group has gained it is now able to function without any external assistance.

Reflecting on their journey, the members say, "We have never expected that we would achieve all this. Now we will never look back and in coming days we will expand the agricultural activities on a large scale, fully use the irrigation system set up by the VDA with project funds and take up other income generating activities. Maa Mangala, our SHG, has given us the platform to express ourselves".

3..Community action for better Sanitation

Jangjanlo is a remote village of 38 Scheduled Tribe households in Gumma block of Gajapati district, about 8 km from the block headquarters and 30 km from the district headquarters. It does not have an all-weather access road and electricity is a distant dream. Diarrhoea, dysentery, malaria, skin diseases are common. There are no sanitary latrines and open defecation is the norm, sometimes leading to snake bites, especially among who could only venture out in darkness. Afraid to go to the jungle, children would defecate in the streets. Government extension services do not reach as the village is remote and lacks an access road.

After much running around, the villagers had been able to get assistance from the Water and Sanitation programme of the government. However, only households below the poverty line (BPL) are eligible for assistance under the programme and even though everyone in the village was quite poor, only a few had been listed as BPL. 'Total Sanitation' therefore remained a distant dream as those not eligible to get government assistance lacked the means to build toilets for themselves.

At the instance of the VDA, construction of toilets was supported by OTELP under the programme. With partial support from OTELP and people's contribution by way of labour, bricks and sand, toilets and bathrooms were constructed for 36 households ineligible for regular government support. Each toilet-bathroom unit costing INR 10 190, and people's contribution was valued at INR 5 690. OTELP also mobilised resources through convergence with the Rastriya Sam Vikas Yojana (RSVY) of the government to provide drinking water to each household. Trained by OTEL in cleanliness and maintenance, individual households are maintaining the latrines and bathroom of their own.

Proud of their achievement, the villagers are now encouraging nearby villages to construct toilets. The villagers have also constructed garbage pits and smokeless cook stoves. According to the villagers, the incidence of diarrhoea, malaria, scabies, dysentery and other diseases has come down they feel confident that these would soon disappear. Elated by the impact of the investment

in village sanitation, 32 year old Rukmini Gamango says, "We and our children no longer go outside for defecation. We are not suffering from any skin disease, diarrhoea or dysentery. Having better sanitation in our village would save a lot of money which we were spending due to illnesses of our family members."

4. BASANTI—the Smokeless Cook Stove

Firewood is the cooking fuel in tribal households as kerosene oil and LPG are beyond their means. Cooking is typically done in a simple open fire cook stove that spews smoke into the room where it is situated. Living in small houses with low roofs and the hearth at one corner of the living space, everyone inhales smoke. Women who cook the food are the worst sufferers as they sit next to the stove and have to keep blowing to keep the fire going..

To alleviate the drudgery of women, Gram Vikas, the FNGO has implemented the Basanti model smoke less cook stove in all 31 households of Chachikana village of Thuamal Rampur block of Kalahandi district. The stove is made of mud by masons trained by Gram Vikas and has a chimney also made of clay pipes leading the smote away through the roof. Besides being smokeless, it is also more efficient and consumes less fuel. The women say it also takes less time to cook, they use less firewood, which means fewer trips to the jungle to collect firewood and have more time now for other work.

5. Vegetable (Tomato) cultivation

Bana Bhatra of Minjiriguda of Jayajagannath VDC of Papdahandi block got OTELP support by way of tomato seed and organic fertilizer through convergence with the RKVY programme of the Government of India during the kharif (rainy) season. He cultivated tomatoes in his small patch of land of about 0.12 acres. He used to cultivate rain-fed maize earlier and earned around INR 1,500. He harvested about half a ton of tomatoes.

He sold the tomatoes in the local market directly to consumers at INR 25 to 40 a kg, earning about INR 15,000 for the season of about three months, for a net profit of INR 12 000 after deducting the imputed cost of his and his wife's labour.

Encouraged by the gains, the family has continued to grow tomatoes even after project support

stopped. Taking a cue from Bhatra, others in the neighborhood have taken to cultivating rainy season tomatoes in place of maize.

6. Commercial vegetable cultivation with Drip Irrigation

Thabir Bhatra of Bapuji VDC, Sirisi got support from OTELP to install drip irrigation in his small patch of land of 0.25 acre. He had been growing vegetables on this land earlier only during one season, lifting water manually from a well to periodically flood irrigate his vegetable patch. Given the drudgery involved and the low water use efficiency of flood irrigation, he could only cultivate one crop during the rainy season when the water requirement is low. OTELP helped him install a drip irrigation system, consisting of two small PVC tanks perched on a 10 ft tall platform, filled with water from a nearby well with a pump and a system of drip tubes running through his vegetable patch. Thabir is now able to grow vegetable round the year. Thabir now grows okra and chilies during the kharif season, earning about INR 13 000. He follows this with beans during the winter rabi season, earning another INR 7 500. Technical support has been provided by the concerned FNGO and OTELP.

7. Learning from peer groups helps to learn faster- hill broom grasses

The Gupteswar Self Help Group in Pindamali village in Tentulipadar GP of Narayanpatna block stared with 12 members in 2005 as a thrift and credit group with an individual monthly saving of INR 10. Apart from saving and credit, the group members by consensus decided to take up a micro enterprise to enhance the active engagement of members as well as the group fund. The members took broom making with Hill Broom Grass as the raw material is easily available. Other inputs were provided by OTELP. The women began making the brooms and tied up with local traders for marketing. The group members purchase the raw material @ INR 22.50 per kg

and sell the brooms at INR 25 per kg. The group has earned a profit of INR 18 000 from this broom business this year from 7.2 to of broom grass. The group has also taken up the business of marketing drumstick and tamarind collectively, which they exporting to nearby Berhampur town. The SHG has also taken up panchayat pond on lease for rearing fish and engaged with the government to streamline the grant of old age pensions in their village. Gupteswara SHG is also trying to strengthen other defunct groups by federating them. Besides, the group is managing a grain bank which helps the farmers during lean period.

The group saving now is INR 29 300 which thy use to lend to members to meet their credit needs in case of emergencies. The women are also participating in solving other social issues relating to women. The success of the Gupteswara SHG has motivated women in SHGs nearby to take up group activities as well. The group has also the plan to support the poor people by providing loans in times of distress.

8. Landless Unskilled Migrant Workers turns into Vegetable Farmer

"Thanks to OTELP programme for saving me from migration", says Guru Bhatra, working diligently on his little vegetable patch with his wife in Minjiriaguda village in Jay Jagannath village. The project facilitated grant of title on a 0.50 acre patch of land under the Forest Rights Act (FRA).

The Indian Parliament enacted the historic FRA with the purpose of, as the preamble to the Act says, 'addressing the long-standing insecurity of tenurial and access rights of forest dwelling Scheduled Tribes and other forest dwellers, including those who were forced to relocate their dwelling due to development interventions'. The Act in its preamble conceded that 'forest rights on ancestral land and their habitat were not recognized in the consolidation of State forests during the colonial period as well as in Independent India resulting in historical injustice to the forest dwelling Scheduled Tribes and other forest dwellers'. Under the Act a Scheduled Tribe or other traditional forest rights can be granted, through due process spelt out in the Act and its Rules, heritable legal title on up to 10 ha of land that the household had traditionally occupied for habitation and/or farming even though the land may now have been (wrongly, as per the Act) classified as forest of any category.

Given that tribal people are not familiar with the processes of accessing their entitlements under

various laws, policies and programmes, OTELP took upon itself to help the eligible project households negotiate the procedures set out in the Act and get titles on their traditional land. Guru Bhatra is one such household assisted by OTELP. He had no land other than a small patch that has been classified as forest and used to make a living by migrating along with his wife to neighboring districts as an unskilled wage earner. He and his wife got legal title to 0.50 acres of so called forest land.

The land was barren and had no water source around to irrigate it. OTELP supported Guru Bhatra to dig a well, provided a small treadle pump to draw water from the well to irrigate his land. He was also trained in vegetable cultivation and provided initial inputs to grow vegetables, such as tomatoes, brinjal (aubergine or eggplant), onions, etc. Guru Bhatra and his wife can now be seen on most days tending to their vegetable patches. They cultivate vegetables round the year and earn INR 8 000 to INR 10 000 per season (typically, thrice a year). As he says, vegetables are not a part of the family's meals.

9. Micro enterprises initiatives-Solar lantern &LED Torch

Balisahi is a one of the remotest tribal villages in Paralakhemundi. Situated in the Ratnagirinal micro-watershed, it is 92 km from district headquarters. The village has 21 households. Shanti and Shakti are two SHGs promoted in the village under OTELP. OTELP arranged a three-day training event in collaboration with Desi Technology Solutions for the members of Shanti SHG at their in the village in assembling solar lights and LED torches. Though illiterate and never before exposed to such equipment, all members of the SHG learned about, the parts of the solar lantern and LED torch and how to assemble them.

The programme had provided parts and accessories for 20 solar lanterns and 50 LED torches for assembling. In 10 days the SHG was able assemble the appliances and sell them in the local haat and earned INR 7 000.00 as profit. The enterprise has changed their lives. The SHG members are involved in the process.

The SHG president Ms Rupanti Majhi says, "This business is very easy and can help me improve the financial condition of my family". Another member of an

SHG in an un-electrified village nearby, Ms Sukanti Majhi said the light is very useful at night if she has to go out and her children will be able to study without having to use kerosene lamps that fill the house with smoke.

10. Safe drinking water saves life

Sisaguda is a small hamlet surrounded by hills and undulated lands. It is under Haticheru VDC and has 38 households with population of 198. Most of the inhabitants live in houses constructed of bricks or mud packed into a bamboo-wooden pole lattice. The roofs are of grass thatched on a bamboo pole frame.

Like many villages in Odisha, Sisaguda did not have a safe drinking water facility and residents would trudge some distance to a stream to fetch water. While making the Village Livelihood and Development Plan (VDLP), the VDC, with every one's agreement in the village identified the lack safe of drinking water facility as its main problem and included construction of a drinking water supply system as one of the activities in its VDLP.

The VDC members took the engineer of the Watershed Development Team (WDT) to the nearest perennial stream and together they identified a potential site from where water could be diverted into a pipe and brought to the village. Given the rolling terrain, the VDC members were skeptical that water could be piped to the village but the engineer with possibility of pipeline down to the village with the help of community. The engineer convinced the committee them about feasibility of the plan and the project was approved by the VDA and sent to the ITDA for its approval. Approved by the ITDA, the project was implemented by the VDC with the support and supervision of the WDT engineer. Everyone in the village now has safe drinking water at their doorsteps.

The elements of the drinking water supply system are a masonry diversion structure across the stream, a filtration tank into which the stream water is diverted to allow settling of silt and sand and a 1 500 m buried PVC pipeline carrying water to distribution tanks.

After the successful completion of the project a Water Users' Association (WUA) has been set up to keep the system functioning. The users, who include every people in the community, are organized into three levels of committees selected by the users to represent and supervise them in planning, execution, operation and maintenance.

From the inception of the project, the key principles followed are:

- ✓ The project belongs to the users—all the households in the village.
- ✓ The users need to be fully involved in every aspect of the project.
- ✓ The VDC needs to play the leadership role to take everyone along and manage

project execution.

- ✓ The project staff must play only a facilitating and technical guidance role, leaving day to day execution to the VDC.

To ensure that the installation can be managed by the community and serve them for a long time, the following factors were taken into consideration:

- The physical installation is conceptually very simple.
- Project components are standardized wherever possible to simplify installation and maintenance of project.
- The project can be operated without needing a technically qualified operator.
- The project is easily maintained by users without having to spend too much time and labour.
- A water user association is put in place with a system of collecting charges so that resources are available in case some repairs are needed.

Appendix-15 OTELP MIS Data Tables

	TABLE-1: INVESTMENT COSTS (AMOUNT IN Lakhs)													
		Fiscal Year												
	Item/Details/ Particulars	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	IFAD LOAN	1.11	15.32	74.27	339.84	624.14	957.51	711.44	3,018.15	4,417.50	1,971.66	-	-	-
2	IFAD LOAN, TTOPUP	-	-	-	-	-	-	-	-	-	-	-	3,815.84	1,959.89
3	DFID GRANT	2.60	35.75	173.30	792.97	1,456.32	2,234.19	1,340.30	-	-	-	-	-	-
4	GoO	- 444.90	340.00	705.48	3,441.32	- 1,358.41	3,227.68	1,875.28	4,400.00	124.37	3,075.58	- 2,879.99	1,184.15	- 1,458.90
5	BENEFICIARY CONTRIBUTION	-	-	-	-	-	587.55	167.03	285.62	267.23	345.29	134.39	446.95	146.81
6	CONVERGENCE	-	-	-	-	-	2.55	3.87	6.33	592.73	895.24	1,467.77	1,564.25	869.70
	TOTAL	**-441.19**	**391.07**	**953.05**	**4574.13**	**722.05**	**7009.48**	**4097.92**	**7710.1**	**5401.83**	**6287.77**	**-1277.83**	**7011.19**	**1517.5**
7	WFP ASSISTANCE													
	FOODGRAINS, ton			101.41	796.71	2540.02	3899.93	3634.36	3883.4	3018.72	66.68			
	Pulses, ton			4.93	48.69	94.07	8.66	2.8						

	TABLE-2: EXPENDITURE BY COMPONENTS (AMOUNT IN Lakhs)													
		Fiscal Year												
	Item/Details/ Particulars	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	CAPACITY BUILDING	-	17.96	91.21	200.20	229.11	455.59	642.52	450.46	648.29	465.57	403.29	383.30	309.73
2	LIVELIHOODS ENHANCEMENT	-	-	50.55	782.52	1,755.33	2,587.33	1,391.33	2,190.56	3,277.18	3,124.04	1,620.00	816.70	130.84
3	SUPPORT FOR POLICY INITIATIVES	-	-	-	-	-	2.60	0.13	1.26	28.95	47.44	12.37	7.49	41.23
4	DIF	-	-	7.21	60.76	29.52	65.71	109.78	134.26	204.89	612.88	307.16	5,411.02	2,784.08
5	PROGRAMME MANAGEMENT	4.38	40.00	124.10	166.21	217.39	283.29	390.47	447.57	533.38	577.67	568.74	454.65	473.56
	TOTAL	**4.38**	**57.96**	**273.07**	**1209.69**	**2231.35**	**3394.52**	**2534.23**	**3224.11**	**4692.69**	**4827.60**	**2911.56**	**7073.16**	**3739.44**

TABLE-3: AWP&B AND EXPENDITURE (AMOUNT IN INR LAKHS)

	Fiscal Year												
Item/Details/ Particulars	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
AWP&B	4.38	836.00	1,023.00	3,588.00	4,185.00	5,013.00	6,394.00	8,602.00	6,000.00	5,069.13	5,038.00	11,000.60	4,038.98
ACTUAL EXPENDITURE	4.38	57.96	273.07	1,209.69	2,231.35	3,394.52	2,534.24	3,224.11	4,692.69	4,827.60	2,911.56	7,073.16	3,739.43
% OF EXPENDITURE	100.00	6.93	26.69	33.71	53.32	67.71	39.63	37.48	78.21	95.24	57.79	64.30	92.58

TABLE-4: VILLAGES AND MICRO-WATERSHEDS COVERED

			Fiscal Year												
1	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
2	Number of MWS covered	#		135	135	135	248	358	358	358	358	358	358	358	358
3	Area of MWS, ha	ha		63219.43	63219.43	63219.43	119123.96	175368.28	175368.28	175368.28	175368.28	175368.28	175368.3	175368.3	175368.3
4	Number of villages covered	#		390	390	390	736	1042	1042	1042	1042	1042	1042	1042	1042
5	Number of households covered	#		19481	19481	19481	34610	56180	56180	56180	56180	56180	56180	56180	56180
6	ST, tribal households	#		16301	16301	16301	26739	42201	42201	42201	42201	42201	42201	42201	42201
7	SC households	#		2360	2360	2360	4636	8069	8069	8069	8069	8069	8069	8069	8069
8	Others	#		820	820	820	3235	5910	5910	5910	5910	5910	5910	5910	5910
9	Number of VDCs organised	#		135	135	135	248	358	358	358	358	358	358	358	358
10	Number of VDLPs prepared	#		135	135	135	248	358	358	358	358	358	358	358	358
11	Number of VDLPs taken up for implementation			135	135	135	248	358	358	358	358	358	358	358	358
12	Number of households received titles	#		0	0	0	0	0	0	0	0	13728	13728	17626	17626
13	titles for homestead	#		0	0	0	0	0	0	0	0	12678	12678	15620	15620
14	titles for cultivation	#		0	0	0	0	0	0	0	0	1050	1050	2006	2006

	TABLE-5: STATUS OF SHG														
			Fiscal Year												
	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	SHGs organised	#	-	-	-	1,327	1,397	2,316	3,975	4,056	4,372	4,273	4,273	4,273	4,273
2	Number of SHG members	#	-	-	-	15,924	16,764	27,792	47,700	48,672	52,464	51,276	51,276	51,276	51,276
3	Number of SHGs received RF	#	-	-	-	-	427	563	1,862	1,577	2,541	3,219	2,145	2,447	1,918
4	Number of SHGs linked to banks	#	-	-	-	-	-	-	-	217	227	530	187	123	277
5	Number of SHGs linked to OLM	#	-	-	-	-	-	-	-	-	-	-	421	148	167
6	Number of Apex federations	#	-	-	-		-	-	-	-	-	7	7	12	20
7	Total RF amount disbursed, (Rs. in Lakhs)		-	-	-	19.56	47.08	283.07	277.85	43.65	140.49	148.27	0.05	1.41	-
8	Cumulative savings, (Rs. in Lakhs)		-	-	-	40.13	155.87	279.37	399.57	836.09	1,007.02	1,133.55	1,208.03	1,306.15	1,361.53
9	Internal lending, (Rs. in Lakhs)		-	-	-	18.86	76.38	145.27	247.73	426.41	493.44	578.11	640.26	640.01	503.47
10	Amount borrowed from banks, (Rs. in Lakhs)		-	-	-	-	-	-	-	701.13	738.26	1,044.30	1,149.62	1,235.72	1,524.52
11	Amount repaid to banks, (Rs. in Lakhs)		-	-	-	-	-	-	-	553.89	597.99	908.54	839.22	877.36	868.98

	TABLE-6: VOCATIONAL TRAINING AND PLACEMENT														
			Fiscal Year												
	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
	Number of youth selected for trainning	#	-	-	-	-	-	-	-	-	10,013	-	-	-	-
	Number of youth trained	#	-	-	-	-	-	-	-	-	600	1,639	555	250	-
	Number of females trained	#	-	-	-	-	-	-	-	-	74	279	91	44	-
	Number of males trained	#	-	-	-	-	-	-	-	-	526	1,360	464	206	-
	Number of female youth placed in jobs	#	-	-	-	-	-	-	-	-	48	128	58	18	-
	Number of male youth placed in jobs	#	-	-	-	-	-	-	-	-	366	1,090	214	113	-

	TABLE-7: LAND AND WATER MANAGEMENT															
			Fiscal Year													
	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Up to March 16
1	MWS AREA TREATED	ha		63,219	63,219	63,219	119,124	175,368	175,368	175,368	175,368	175,368	175,368	175,368	175,368	175,368
	NUMBER OF HOUSEHOLDS	#		19,481	19,481	19,481	34,610	56,180	56,180	56,180	56,180	56,180	56,180	56,180	56,180	56,180
	ARABLE AREA	ha	0	0	0	0	2203	1817	159	575	4837	1691	622	33	1470.6	13,408
	NUMBER OF HOUSEHOLDS	#	0	0	0	0	2761	1327	368	1571	30233	5200	1537	1537	5510	50,044
	AREA CULTIVATED, KHARIFF	ha	0	0	0	0	2203	1817	159	575	4837	1691	622	33	1470.6	13,408
	AREA CULTIVATED, RAINFED	ha	0	0	0	0	301.5	538.5	277.5	458.5	2543	2407.5	568	388.5	883	8,366
2	NUMBER OF CHECK DAMS, DBI, WEIRS			-	-	-	110	139	71	52	88	217	54	202	146	1,079
	NUMBER OF hh BENEFITED	#		-	-	-	1,639	636	77	705	1,320	965	213	935	2,190	8,680
	AREA COVERED	ha		-	-	-	1,485	570	291	213	361	890	221	828	599	5,458
	AREA IRRIGATED, KHARIF	ha		-	-	-	1,485	883	68	213	361	290	85	4	599	3,987
	AREA IRRIGATED, RABI	ha		-	-	-	165	209	107	78	132	326	81	303	219	1,619
3	WHS	#		0	0	0	64	151	69	155	991	347	46	14	0	1837
	NUMBER OF HOUSEHOLDS	#		-	-	-	1,054	467	96	335	26,492	2,274	782	238	-	31,738
	AREA IRRIGATED, KHARIF	ha		-	-	-	676	906	69	286	3,915	895	76	9	-	6,832
	AREA IRRIGATED, RABI	ha		-	-	-	128	302	138	310	1,982	694	92	28	-	3,674
4	IRRIGATION WELLS	#		0	0	0	17	56	60	119	184	514	298	51	0	1299
	NUMBER OF HOUSEHOLDS	#		-	-	-	68	224	180	476	736	556	212	204	-	2,656
	AREA IRRIGATED, KHARIF	ha		-	-	-	43	28	18	60	92	98	149	12	-	499
	AREA IRRIGATED, RABI	ha		-	-	-	9	28	30	60	92	257	149	26	-	650
5	NUMBER OF HYDRAMS INSTALLED	#		0	0	0	0	0	0	0	5	10	6	3	5	29
	NUMBER OF HOUSEHOLDS	#		-	-	-	-	-	-	-	50	100	60	30	50	290
	AREA IRRIGATED	ha		-	-	-	-	-	-	-	10	20	12	6	10	58
6	NUMBER OF LI & PUMPS INSTALLED	#		0	0	0	0	0	1	1	43	317	78	8	218	666
	NUMBER OF HOUSEHOLDS	#		-	-	-	-	-	15	15	645	1,255	270	120	3,270	5,590
	AREA IRRIGATED, KHARIF	ha		-	-	-	-	-	4	4	172	268	312	5	872	1,637
	AREA IRRIGATED, RABI	ha		-	-	-	-	-	3	3	129	951	234	24	654	1,998
7	Perculation Tank	#		0	0	0	0	0	0	4	99	80	0	1	0	184
	NUMBER OF HOUSEHOLDS	#		-	-	-	-	-	-	40	990	50	-	10	-	1,090
	AREA IRRIGATED, KHARIF	ha		-	-	-	-	-	-	12	297	140	-	3	-	452
	AREA IRRIGATED, RABI	ha		-	-	-	-	-	-	8	198	160	-	2	-	368

TABLE-8: WADI PLANTATIONS

Item/Details/ Particulars	Unit	Fiscal Year												
		2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Villages under wadi plantation	No	-	-	-	201	382	469	727	802	952	978	987	987	987
Area Planted	ha	-	-	-	87	153	250	310	478	754	450	157	25	290
Household covered	Nos	-	-	-	220	402	714	659	864	1,120	915	1,800	572	436
Average size	Ha	-	-	-	0.39	0.38	0.35	0.47	0.50	0.32	0.50	0.38	0.68	0.66
Plants planted	Nos	-	-	-	-	-	-	-	-	-	-	-	-	-
Mango (pure)	Nos	-	-	-	5,000	9,500	13,200	21,800	31,500	21,820	21,300	51,600	20,100	18,000
Cashew(pure)	Nos	-	-	-	8,880	4,800	9,120	6,000	8,880	16,800	8,640	12,480	8,880	26,400
Mango+Cashew	Nos	-	-	-	-	5,700	12,000	10,050	12,000	10,200	31,050	19,800	20,250	-
Regenarartion of forest plantation to social fe	Ha	-	-	1,150	1,650	1,836	2,139	2,327	2,492	2,492	2,492	2,492	2,492	2,492
New Forest Plantation	Ha	-	-	-	-	-	-	-	-	-	-	-	-	-
Horticultural Plantation	Ha	-	-	315	569	1,140	1,533	1,713	1,749	1,875	1,875	1,875	1,925	2,216
Household covered	Nos	-	-	610	890	1,385	2,189	2,324	2,562	3,365	3,365	3,385	3,763	3,814
Others	Ha	30	40	90	110	-	120	130	150	168	168	168	168	168

	TABLE-9: CROP DEMONSTRATIONS														
			Fiscal Year												
	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	CROP DEMONSTRATIONS														
	INTER-CROPPING	ha	-	-	60	70.5	64.5	137.65	293	262.75	487	2093	1833	1404	1594
	FARMERS PARTICIPATED	#	-	-	195	223	-	446	942	657	1219	8720	7022	5749	6755
	SEQUENCE CROPPING	ha	-	-	110	221	334.8	436.45	1474	2272	1921	3297	3861	2930	2960
	FARMERS PARTICIPATED	#	-	-	223	467	-	885	2988	5971	5048	11395	14142	11472	12560
	CROP DIVERSIFICATION	ha	-	-	39	66.4	163.8	436.45	2872	1540.8	1090	1821	1462	1491	1561
	FARMERS PARTICIPATED	#	-	-	73	124	-	811	5342	3856	3880	9504	6325	5758	5928
	FARMERS REPLICATING	#	-	-	2	21	11	24	162	149	291	1423	947	869	913
2	RAGI DEVELOPMENT	ha	-	-	6	41.9	19.4	110.8	2554	18	471	385.5	796	472	683
	FARMERS PARTICIPATED	#	-	-	1	913	77	248	559	45	1055	1278	3272	2156	2639
3	HYBRID MAIZE	ha	-	-	-	0	7	52.7	649	325.5	562	2128	5079	3562	4013
	FARMERS PARTICIPATED	#	-	-		0	32	211	2196	743	1288	3981	8195	6805	7107
4	RICE INTENSIFICATION	ha	-	-	25	35	11.7	111.6	165	192.5	267	1018	2894	1906	2114
	FARMERS PARTICIPATED	#	-	-	102	-	47	443	673	540	930	3008	10143	6005	6660
5	PULSES (peagion pea)	ha	-	-					40	52	60	75	1016	1031	1045
	FARMERS PARTICIPATED	#	-	-					73	87	102	123	2620	2067	2324
	PULSES (Chick pea)										20	35	110	131	185
	FARMERS PARTICIPATED										45	55	440	790	820
	Oil seed (ground nut)										50	60	265	796	820
	FARMERS PARTICIPATED										70	102	735	2395	2613
6	VEGETABLE DEMONSTRATIONS	ha	-	-	23	73.2	53.4	90.7	1984	111.6	81.74	6994	1159.75	5430	5386
	HOUSEHOLDS COVERED	#	-	-	83	265	193	323	7160	934	6387	29535	40834	28089	29068
	HOUSEHOLDS REPLICATING	#	-	-	2	12	15	21	152	112	211	2213	817	562	983
	SIZE OF CROP DEMONSTRATION	ha			0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	SIZE OF VEGETABLE DEMONSTRATION	ha			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

	TABLE-10: POULTRY UNITS						
			Fiscal Year				
	Item/Details/ Particulars	Unit	2011/12	2012/13	2013/14	2014/15	2015/16
	BROILER UNIT						
1	No. of farm established	No	67	21	380	80	332
2	No. of household benefited	No	67	21	380	80	332
3	No. of birds chicks per unit	No	400	600	400	400	400
4	No. of cycle per year		5	5	5	5	5
5	Cost of chicks per cycle	INR cost of O&M per cycle	10,000	15,000	10,000	10,000	10,000
6	Mortality rate per cycle	%	10	10	10	10	10
7	No. of birds sold per cycle	No	360	540	360	360	360
8	Labour input per cycle	days	11	11	11	11	11
	Mother Chick Unit						
9	**No of MCUs**		49	9	34	1	0
10	No. of household benefited		490	90	340	10	0
11	No. of birds /unit		1,000	1,000	1,000	1,000	0
	Backyard Poultry						
12	No. of back yard poultry	No	1,288	995	1,305	40	0
13	No. of households benefited	No	1,288	995	1,305	40	0
14	No. of birds /unit	No	30-40	30-40	30-40	30-40	0
		days					

TABLE-11: POLYHOUSES

Item/Details/ Particulars	Unit	Fiscal Year 2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
# of ploy houses installed	#	-	-	-	-	-	-	-	-	11	27	39	59	10
# of ploy houses in operation	#	-	-	-	-	-	-	-	-	11	27	39	59	10
Average size of a poly house	m2	-	-	-	-	-	-	-	-	160	160	160	160	160
Annual value of production/ploy house	INR	-	-	-	-	-	-	-	-	12,365	13,654	13,654	21,000	22,325
Annual value of inputs, seeds, fertilizers	INR	-	-	-	-	-	-	-	-					
Labour-days per polyhouse	days	-	-	-	-	-	-	-	-					

TABLE-12: GOAT-SHEDS & GOAT UNITS

	Item/Details/ Particulars	Unit	Fiscal Year 2012/13	2013/14	2014/15	2015/16	Total
1	No. of goat sheds installed	No	485	946	2,604	1784	5,819
2	No. of goat households benefited	No	485	946	2,604	1784	5,819
3	No. of goat firms established	No					-
4	No.of households benefited	No					-
5	Cost of does per unit	INR	7,500	7,500	7,500	7,500	
6	Feed cost unit/year	INR	500	500	500	500	
7	Labour Days /Unit/Year	days	45	45	45	45	
8	Mortality Rate	%	10-15	10-15	10-15	10-15	
9	Cost of vaccination per unit		250	250	250	250	
10	Cost of insurance per unit		691	691	691	691	
11	No. of bucks supplied		50	108	341	356	
12	Cost of bucks per unit	INR	7,480	7,480	7,480	7,480	

	TABLE-13: FISHPONDS									
			Fiscal Year							
	Item/Details/ Particulars	Unit	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Total
1	No. of fishpond constructed	No	113	38	11	175	34	176	-	0	547
2	Average Area of a Fish Pond	m2	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1500	
3	No.of fishponds in operation	No	113	38	11	175	34	176	176	176	547
4	No.of fingerlings introduce/pond	INR	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1000	
5	Cost of fingerlings per pond	INR	1,150	1,150	1,150	1,150	1,150	1,150	1,150	1150	
6	Cost of feed manure per fish pond	INR	300	300	300	300	300	300	300	300	
7	Labour days/pond	days									-
8	Cost of harvesting of Fish/Pond	INR	4,850	4,850	4,850	4,850	4,850	4,850	4,850	4850	
9	Quantity of fish produce/Pond of fish	Kg	120	120	120	120	120	120	120	120	
10	Sale value of fish/kg	INR/Kg	80	80	80	80	80	80	80	80	

TABLE-14: Community infrastructure fund & Development Initiative Fund

Item/Details/ Particulars	Unit	Fiscal Year 2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Cummulative up
# of storage godowns / Multipurpose Community Centre constructed	#	-	-	-	-	-	14	139	307	107	105	40	40		752
Average capacity of godown	ton	-	-	-	-	-	30	30	30	30	30	30	30		210
# of households benefited	#	-	-	-	-	-	1066	10363	22847	7983	7859	3038	3024		56,180
# of godowns in use	#	-	-	-	-	-	14	139	307	107	105	40	40		752
															-
# of drying yards constructed	#	-	-	-	-	-	-	45	112	17	120	63	45		402
# of households benefited	#	-	-	-	-	-		2565	6384	969	6840	3591	2673		23,022
# of drying yards in use	#	-	-	-	-	-		45	112	17	120	63	45		402
															-
# of threshing platforms constructed	#	-	-	-	-	-			2	0	0	5	170		177
# of households benefited	#	-	-	-	-	-			97	0	0	249	8431		8,777
# of threshing platforms in use	#	-	-	-	-	-			2	0	0	5	170		177
															-
# of household silos distributed	#	-	-	-	-	-	0	256	1110	1180	1420	0	0		3,966
Average capacity of a silo	kg/silo	-	-	-	-	-		200	200	200	200				800
# of household benefited	#	-	-	-	-	-		256	1110	1180	1420				3,966
															-
Others...															-

TABLE-15: DRUDGERY REDUCING INTERVENTIONS

Item/Details/ Particulars	Unit	Fiscal Year 2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Cummulative, Ma
# of DWS pumps installed	#	-	-	-	-	-	-	-	-	303	130	67	108		608
# of DWS pumps in use	#	-	-	-	-	-	-	-	-	303	130	67	108		608
# of households benefited	#	-	-	-	-	-	-	-	-	16580	7114	3666	5910		33,270
# of DWS Gravity fed	#	-	-	-	-	-	-	-	14	23	28	6	6		77
# of DWS Gravity fed in use	#	-	-	-	-	-	-	-	14	23	28	6	6		77
# of households benefited	#	-	-	-	-	-	-	-	766	1259	1532	328	328		4,213
# of village DWS schemes installed	#	-	-	-	-	-	-	-	14	326	158	73	114		685
# of households benefited	#	-	-	-	-	-	-	-	766	17839	8646	3995	6238		37,483
# of village sanitation units constructed	#	-	-	-	-	-	-	-		136	74	-	-		210
# of households benefited	#	-	-	-	-	-	-	-		7234	3939				11,173
# of DWS wells constructed	#	-	-	-	-	-	-	-		303	130	67	108		608
# of households benefited	#	-	-	-	-	-	-	-		16580	7114	3666	5910		33,270
# of solar lanterns installed	#	-	-	-	-	-	-	-	266	395	289	28	0		978
# of households benefited	#	-	-	-	-	-	-	-	266	395	289	28	0		978
# of Solar Street Lights installed									26	32	12	62	8		140
# of households benefited									1438	1769	663	3428	442		7,741

TABLE-16: PROCESSING UNITS & IGA

Item/Details/ Particulars	Unit	Fiscal Year 2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Processing mills														
# of processing units installed	#	-	-	-	-	-	-	-	33	18	12	1	1	0
# of households benefited	#		-	-	-	-	-	-	1,747	937	674	55	67	-
Paddy processed/year/mill	ton	-	-	-	-	-	-	-	14	3	1			
Flour milled/year/mill	ton	-	-	-	-	-	-	-	10	2				
Tamarind processing unit	ton	-	-	-	-	-	-	-	3	13	11	1	1	
Cashew processing unit	ton	-	-	-	-	-	-	-	6					
Grocery shops	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
# of shops set up	#	-	-	-	-	-	-	-	1	-	25	57	57	-
# of households benefited	#	-	-	-	-	-	-	-	32	-	795	1,732	1,935	-
# of shops in operation	#	-	-	-	-	-	-	-	1	-	25	57	57	-
Annual turnover/shop	INR	-	-	-	-	-	-	-	100,000	-	110,000	120,000	125,000	-
Annual purchase /shop	INR	-	-	-	-	-	-	-	70,000	-	80,000	85,000	90,000	-

	TABLE-17: WADI PLANTATION														
			Fiscal Year												
	Item/Details/ Particulars	Unit	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	Crop grown before WADI Plantation	Nos	0	0	0	Podu land- Sorgum, local maize, minor millet, nizer									
2	Area Planted	ha	0	0	0	87	153	250	310	478	754	450	157	25	290
3	Household covered	ha	0	0	0	220	402	714	659	864	1,120	915	1,800	572	436
4	Average area size	Nos	0	0	0	0.39	0.38	0.35	0.47	0.5	0.32	0.5	0.38	0.65	0.66
5	Average Yield/ Wadi Units - Plant	Ha	0	0	0				5 Kg						
6	Average Yield/ Wadi Units - Ha		0	0	0				500 Kg/A						
7	Average Yield/ Wadi Units - Avg.price		0	0	0				15						
	Mango (pure)														
	Average Yield/ Wadi Units - Plant								5kg			10-15kg			20-25kg
	Average Yield/ Wadi Units - Ha								500kg			1500kg			2500kg
	Average Yield/ Wadi Units - Avg.price	INR							15/kg			30/kg			30/kg
	Cashew(pure)														
	Average Yield/ Wadi Units - Plant								5kg			8-10kg			15-20kg
	Average Yield/ Wadi Units - Ha								1000kg			2000kg			4000kg
	Average Yield/ Wadi Units - Avg.price								65/kg			65/kg			65/kg
12	Value of inputs /Wadi unit/ INR	Ha	0	0	0	30000	10000	10000	10000	10000	10000	10000	10000	10000	10000
13	Labour days /per year	Ha	0	0	0	250-350	100	100	100	100	100	100	100	100	100
14	Compost Manure /per year	Ton		0	0	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5	3 to 5
15	Others O & M cost	INR	0	0	0	6500	6500	6500	6500	6500	6500	6500	6500	6500	6500
16	Harvesting Labours	Days	0	0	0	20	20	20	20	20	20	20	20	20	20

TABLE-18: CROPPING PATTERNS-BASELINE AND ENDLINE (Area in ha)							
		Baseline (ha)		Endline (ha)		Incremental (ha)	
Crops		Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated
Khariff season							
Paddy		18,350	2,186	13,962	5,268	-4,388	3,082
Millets		9,353	0	9,430		77	0
Maize		1,440	122	3,993	1,797	2,553	1,675
Pulses		4,536	117	2,997	1,356	-1,539	1,239
Oilseeds		637	138	2,358	438	1,721	300
Vegetables		752	516	1,985	1,897	1,233	1,381
Spices		3,277	310	3,977	879	700	569
Root crops		40	0	1,456	0	1,416	0
Potato		20	0	540	0	520	0
Onion				75	0	75	0
Other crops				733	8,000	733	8,000
Horticulture plantations		966	324	503	2,560	-463	2,236
Fruit crops		317	0	1,922	1,032	1,605	1,032
Khariff season total		39,688	3,713	43,931	23,227	4,243	19,514
Rabi season						0	0
Paddy		0	802	0	3,568	0	2,766
Millets		0	87	560	262	560	175
Maize		0	0	0	536	0	536
Pulses		3,532	218	3,326	726	-206	508
Oilseeds		3,130	136	1,767	830	-1,363	694
Vegetables		1,781	356	1,358	1,448	-423	1,092
Spices		211	0	530	723	319	723
Root crops		0	0	0	0	0	0
Potato		0	53	0	132	0	79
Onion		0		0	560	0	560
Horticulture plantations		0	324	0		0	-324
Fruit crops		0				0	0
Rabi season total		8,654	1,976	7,541	8,785	-1,113	6,809
Source: PSU, OTELP based on aggregates of data from ITDAs							

TABLE-19 : TARGET GROUP BY INTERVENTION

		Fiscal Year											
ITEM/ DETAILS/PARTICULARS	**Unit**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Land & Water Conservation	hh					3318	5520	1935	2686	9724	15826	3869	1646	8553
Production System Enhancement	**hh**				**15924**	**16764**	**30025**	**62383**	**116523**	**79379**	**121197**	**74470**	**73794**	**83649**
SHG	hh				15924	16764	27792	47700	48672	52464	51276	51276	51276	51276
CIF	hh						798	7923	32074	12744	14006	9348	13335	0
DIF	hh						1435	6760	35777	14171	55915	13846	9183	32373
No of participating women	hh				15,605	16,428	30,104	52,894	73,797	64,971	81,976	60,263	59,191	65,393

TABLE-20: NUMBER OF FNGOS OPERATING

			Fiscal Year when contracted												
	Name of FNGO	**Block**	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
1	JAGRUTI	Kotgarh	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
2	PRDATA	Tumudibandh	-	-	Y	Y	Y	Y	Y	Y	Y				
3	SWATI	Tumudibandh	-	-									Y	Y	Y
4	CYSD	Laxmipur	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
5	VIKAS	Narayanpatna	-	-	Y	Y	Y	Y	Y	Y	Y				
6	FES	Narayanpatna	-	-									Y	Y	Y
7	AFPRO	Bandhugaon	-	-	Y	Y	Y	Y	Y	Y	Y				
8	Harsha Trust	Bandhugaon	-	-									Y	Y	Y
9	Gram Vikas	Thuamul Rampur	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
10	Antodaya	Thuamul Rampur	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
11	GVT	Lanjigarh	-	-	Y	Y	Y	Y	Y	Y	Y				
12	ITDA	Lanjigarh	-	-									Y	Y	Y
13	CCD	Gumma	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
14	JKP	Nuagada	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
15	SWWS	Rayagada	-	-	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y
17	PEACE		-	-	Y	Y	Y	Y	Y	Y	Y				
16	JKP	Nuagada	-	-									Y	Y	Y
18	SWADESI	K.Nuagaon	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
19	PRADAN	K.Nuagaon	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
20	PRADAN	Baliguda	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
21	CPSW	Daringibadi	-	-			Y	Y	Y	Y	Y				
22	ITDA	Daringibadi	-	-								Y	Y	Y	Y
23	CYSD	Dasmantpur	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
24	TSRD	Nandapur	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
25	TSRD	Semiliguda	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
26	LAVS	Pottangi	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
27	Gram Vikas	Thuamul Rampur	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
28	Gram Vikas	Lanjigarh	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
29	Gram Vikas	Mohana	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
30	SWWS	R.Udayagiri	-	-			Y	Y	Y	Y	Y	Y	Y	Y	Y
31	ISARA	Jharigaon	-	-				Y	Y	Y					
32	ITDA	Jharigaon	-	-								Y	Y	Y	Y
33	RCDC	Kosagumuda	-	-				Y	Y	Y	Y	Y	Y	Y	Y
34	IRDMS	Papdahandi	-	-				Y	Y	Y	Y	Y	Y	Y	Y
35	ODC	Mathili	-	-				Y	Y	Y	Y	Y			
36	ITDA	Mathili	-	-									Y	Y	Y
37	Harmony	Khairput	-	-				Y	Y	Y	Y	Y	Y	Y	Y
38	Parivartan	Kudmulgumma	-	-				Y	Y	Y	Y	Y	Y	Y	Y
39	AKSSUS	Bissam katak	-	-				Y	Y	Y	Y	Y	Y	Y	Y
40	BISWA	Gudari	-	-				Y	Y	Y	Y	Y	Y		
41	ITDA	Gudari	-	-										Y	Y
42	FARR	Muniguda	-	-				Y	Y	Y	Y	Y	Y	Y	Y
43	SHAKTI	Kashipur	-	-				Y	Y	Y	Y	Y	Y	Y	Y
44	USO	Chandrapur	-	-				Y	Y	Y	Y	Y	Y		
45	ITDA	Chandrapur	-	-										Y	Y

TABLE-20 B: STAFF DEPLOYMENT

	# of	Fiscal Year when deployed												
Staff position	positions	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
PSU		6	6	6	6	7	6	7	7	11	14	14	13	13
ITDAs		4	22	27	31	34	61	62	62	62	62	62	62	57
ITDA Baliguda	9	1	6	6	8	8	8	8	9	9	9	9	9	8
ITDA Koraput	9	1	4	7	7	9	9	9	8	8	8	8	9	7
ITDA Paralakhemundi	9	1	6	7	9	8	9	9	9	9	9	9	9	8
ITDA Th.Rampur	9	1	6	7	7	9	9	9	9	9	9	9	9	9
ITDA Gunupur	9	0	0	0	0	0	9	9	9	9	9	9	8	7
ITDA Malkanagiri	9	0	0	0	0	0	9	9	9	9	9	9	9	9
ITDA Nawarangpur	9	0	0	0	0	0	8	9	9	9	9	9	9	9

TABLE-21 : AOS INDICATORS SUMMARY							
		Year When AOS conducted					
OTELP	**Unit**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Blocks covered	No	30	30	30	30	30	30
Villages covered	No	30	120	135	135	135	135
Project households covered	No	200	900	900	900	900	900
Controlled household	No	100	300	450	450	450	450
Focuss group discussion held & date of survey	Month	90	90	90	90	90	90
HH Headed by women	%	5	6	15	3	10	9
HH Having knowledge about the project	%	99	88	99	100	99	100
Frequency of staff visit	day/year	58	46	46	47	47	63
hh with irrigation facilities	%	45	25.4	53.1	54.8	44.4	47.4
hh with livestock and acquaculture	%	79	11.7	67.5	72.3	78	75.6
hh with access to water supply sanitation	%	60	29.6	79.3	79.7	78.1	81.3
hh satisfied with OTELP	%	45	32	48	53	54	60
hh with 4 sources of incomes	%	46	58	61	77	48	82
hh with 3 sources of incomes	%	81	91	91	94	75	94
hh with 2 sources of incomes	%	93	94	98	100	90	99
hh with surplus cash incomes	%	65	65	93	96	97	99
hh with food security	%	52	77	94	95	99	100
hh facing food shortage	%	48	23	6	5	1	0
hh having land ownership	%	88	84	91	93	87	91
hh with property ownership	%	78	85	89	89	79	86
hh cultivating to own consumption	%	65	50	31	26	38	36
hh culativating for sale	%	1	1	1	2	0	0
hh cultivating for both	%	28	45	65	69	54	57
Productivity							
hh reporting productivity increases	%	55	43	69	70	68	78
hh reporting crop area increases	%	90	70	62	77	70	79
hh reporting irrigated area increases	%	90	87	87	68	87	83
hh adopted cash, high value crop	%	50	28	55	61	56	64
hh cultivating food crops only	%						
Technology addoption							
hh replacing seed	%	82	430	430	450	500	600
hh using compost	%	15	50	50	100	20	170
hh shiffted to non-paddy crops	%	6	5	10	25	5	0
hh inter-cropping in uplands	%	0	0	15	25	3	0
hh cultivating 2 crops/year	%		0	40	10	2	0
hh cultivating vegetables, cash crops	%	50	48	220	200	6	0
Livestock							
hh reporting increases in hard size	%	60	92	67	94	95	95
hh reporting increases in fishpond	%	61	48	79	68	73	74
hh reporting increases due to OTELP	%	60	91	92	83	83	100
hh reporting incomes from agri sales	%	41	45	64	74	73	72
hh reporting changes in income	%	70	22	60	61	66	54
hh reporting advance sale	%	50	81	36	266	358	69.1
hh reporting contract sale		70	80	81	197	255	64.1
hh having access to RFS	%	68	58	70	59	61	63
hh regular in repayment	%		53	51	53	52	52
hh access to credit during last 12	%	64	58	70	59	73	63
hh with improved access to credit	%	59	27	54	63	54	74
hh with access in formal credit	%	68	69	71	52	56	67
Total amount borrowed	INR	196012	35887	40562	43000	15474	109332
Average amount borrowed / hh	INR	5512	5487	10162	6500	3974	9132
Maximum amount borrowed/hh	INR	190000	30000	30000	35000	10000	100000
Minimum amount borrowed /hh	INR	500	400	400	1500	1500	200
Uses of credit							
amount used for IGA	%	29	13	24	37	38	68
amount used for consomption	%	36	49	31	53	47	21
amount used for health expenditure	%	13	7	8	0	7	2
amount used for investment in agri	%	0	0	0	0	0	0
amount used for other purposes	%	22	30	37	10	8	9
Acess to common resources							
hh having access to forests	%	92	94	92	88	86	87
hh having regulated access to forest	%	98	60	20	23	45	87
hh with improved access to forests	%	55	100	65	79	48	97
hh with access to forest due OTELP	%	78	0	65	62	70	96
Access to pasture lands							
hh with access to pasture lands	%	98	62	72	79	60	63
hh with access to fish ponds	%	28	38	38	39	88	92

Table 22: Land survey and distribution

		2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1 OGLS	#						0	1465	1440	2905	2905	2905	2905	
2 OPLE	#						100	674	862	1636	9773	9773	9773	
3 VASUNDHARA	#						0	2328	1187	3515	3515	3515	3515	
4 MO JAMI MO DHIA	#						0	27	270	638	638	638	638	
5 FRA	#						0	7479	1132	8611	8611	8611	8611	
6 REGULATION-2	#						0	0	0	596	596	596	596	
titles for homestead											12678	12678	15620	
titles for cultivation											1050	1050	2006	

Explanation

a/ OGLS, Odisha Government Land Settlement Act

b/ OPLE, Odisha Prevention of Land Encroachment

c/ Vasundara, a policy research NGO in Odisha and land titles facilitated by this NGO

d/ Mo Jami Mo Dhia, This is a GoO programme, "my land, my ownership"

e/ FRA Forest Rights Act of GoI

f/ Regulation-2 is an Act passed by the Government of Odisha in 1956 pertaining to transfer of immovable property (land) belonging to the ST.

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