Report on Annual Outcome Survey

Jharkhand Tribal Empowerment and Livelihoods Project (JTELP)

JTDS

IFAD
Investing in rural people

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Submitted By

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CONNECT Social Enterprise Development Services

ACKNOWLEDGEMENT

The Annual Outcome Survey (AOS) 2020 would not be possible without the hard work of both project and research team dedicated to improving the lives of Tribal and Primitive Tribal Groups in Jharkhand.

CONNECT team comprising of Ms. Rashmi Adlekha, Mr. Prakash Nayak, Mr. Manish Kumar and Mr. Shiv Shankar Singh extends its warm appreciation to the team of enumerators engaged in the survey to ensure a quality data within a constrained time frame to support the analysis and drafting of findings from the survey. We can't be more grateful to the project team especially the Director, APD-Programme, and Manager-PME in extending their whole hearted support and on time support starting from contracting to providing feedback and suggestions to help understand various component of the project including aims and objective of the study. We also thank JTELP's district project management team and partner FNGOs for extending timely support to our survey teams.

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ABBREVIATIONS

AOS	Annual Outcome Survey
BPL	Below Poverty Line
C	Control
CAPI	Computer assisted personal interviewing
DEA	Department of Economic Affairs
DPMU	District Project Management Unit
DSR	Direct Seeded Rice
FGD	Focus group discussion
FNGO	Facilitating Non-Government Organization
GSPEC	Gram Sabha Programme Execution Committee
IFAD	International Fund for Agriculture Development
INR	Indian Rupees
ITDA	Integrated Tribal Development Agency
JSLPS	Jharkhand State Livelihood Promotion Society
JTDP	Jharkhand Tribal Development Programme
JTDS	Jharkhand Tribal Development Society
JTELP	Jharkhand Tribal Empowerment and Livelihoods Project
KII	key informant interview
Km	Kilometre
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
NREGA	National Rural Employment Guarantee Act
OBC	Other Backward Class
PDS	Public Distribution System
PEC	Programme Execution Committee
PO	Post Office
PRI	Panchayati Raj Institution
PVTG	Particularly vulnerable tribal groups
Q	Quintal
SC	Scheduled Caste
SCA	Special Central Assistance
SHG	Self-Help Group
SPMU	State Project Management Unit
ST	Scheduled Tribe
T	Treatment
ToR	Terms of Reference
TSA	Technical Support Agency
TSP	Tribal Sub-Plan
USD	United States Dollar
YG	Youth Group

1 CONTEXT

1.1 ABOUT JTELP

Jharkhand is a state in eastern India, carved out of the southern part of Bihar on 15 November 2000.The state shares its border with the states of Bihar to the north, Uttar Pradesh to the northwest, Chhattisgarh to the west, Odisha to the south and West Bengal to the east. The state has an area of 79,714 Km^2 and a population of 32.97 million (Census 2011), of whom 26% are Scheduled Tribes (STs) and 78% are rural. With 51.6% rural people below the poverty line (BPL), Jharkhand is among the five States in India with more than half the rural BPL population. The state is also characterized with low literacy rate of 66.41% which is less than national average literacy rate of 72.98%. There is also a high level of gender gap in literacy rate evident from the male literacy rate of 76.84%, and the female literacy rate of 55.42%.

Scheduled Tribes are the poorest in Jharkhand, a state carved out in response to popular demand from the tribal communities. In spite of a number of affirmative national and state laws and tribal development programmes, STs remain mired in poverty. Nationally and in Jharkhand, STs have suffered the most in terms of displacement due to river valley construction, mining and industrialization. A number of districts in the State are affected by left wing extremism which, while mobilizing the discontent amongst tribal people, also prevents the delivery of government programmes and services to improve their quality of life.

Though agriculture is the main rural occupation, over half of the cultivable land remains fallow and only 11% of the area sown is irrigated. Over 70% farms are smaller than 1 ha. Historically a key livelihood source for the Tribal communities, forests comprises 30% of the State's geographical area. Natural resources are central to the livelihood systems and coping strategies of the STs. Loss of soil fertility due to erosion and degradation, denudation of and increasing state control over forests have adversely affected tribal livelihoods and wellbeing over the years. In their relatively recent transition to settled farming and tribal communities are yet to develop resource management systems suited to their farming systems in an ecologically complex resource base. Above all, they lack financial resources and have little access to technical services.

Keeping the above context into consideration, The Jharkhand Tribal Empowerment and Livelihoods Project (JTELP) is built on the experience of the IFAD-supported Jharkhand Tribal Development Programme (JTDP). The overall goal of JTELP is to "improve living conditions of the Tribal communities and in particular, particularly vulnerable tribal groups (PVTGs) in the Tribal Scheduled Area districts in Jharkhand". The development objective of the project is to "Empower and enable 211,000 tribal households including 10,000 PVTGs households to take up livelihood opportunities based on sustainable and equitable use of natural resources in 169 village Panchayats falling in 32 Blocks of 14 Tribal Sub-Plan(TSP) districts".

The expected project outcomes are

i.   1, 22,400 tribal households from highland benefit from increased food production, greater participation and returns from improved rain fed farming practices;
ii. 5,828 functional community groups created including Gram Sabha Programme Execution Committees (PEC), women's groups, youth's groups and PVTGs households;
iii. 26,640 households in lowland benefit from improved village irrigation facilities; and
iv. 25,150 households benefit from market-linked, commercial production and livelihoods activities.

The project is being implemented in 14 districts and 32 blocks. The districts are Ranchi, Khunti, Gumla, Simdega and Lohardaga districts in Ranchi Division, West Singhbhum, East Singhbhum and Saraikela-Kharsawan districts in Kolhan Division, Latehar in Palamau Division and Godda, Dumka, Pakur, Sahebganj and Jamtara in Santhal Pargana Division. These districts are Integrated Tribal Development Agency (ITDA)/Tribal Sub-plan (TSP) districts. Within these districts the blocks and Panchayats that have rural tribal population of more than 50% have been chosen for intervention under JTELP.

The project is for a period of nine years from year 2012 to 2021. Based on May 2012 prices, total project costs are estimated at USD 115.6 million (INR 6,357.5 million) including the price contingencies of USD 16.5 million (INR 906.5 million). The Project is financed by IFAD, the Government of Jharkhand, SCA-TSP, and MGNREGS and also contributions from beneficiaries. The IFAD loan is USD 51.08 million (42% of total project costs), the Government funding is estimated at USD 6.3 million (5.2% of the total), MGNREGS USD 48.60 million (40% of total), while the beneficiaries contribution is USD 0.95 million (0.8% of total project costs). Taxes (funded out of the Government contribution) amount of USD 2.8 million.

The Department of Economic Affairs (DEA) in the Ministry of Finance is the nodal agency at the Government of India level to review and monitor project progress. Welfare Department at the state level is the state level nodal agency for the project. JTELP is being implemented by Jharkhand Tribal Development Society (JTDS), an independent Society established by the State Government to implement JTDP. The project is managed by involving JTDS; Technical Support Agencies (TSAs), Facilitating NGOs (FNGOs), District Administration, relevant line agencies, Panchayats and the Gram Sabhas of the natural villages.

1.2 ABOUT ANNUAL OUTCOME SURVEY

As per IFAD Guidelines, Annual Outcome Survey (AOS) is to be conducted every year for monitoring outcome level result and effectiveness of project implementation. Four rounds of AOS were conducted in the years 2015, 2016, 2017 and 2018 respectively. For conducting the fifth round of AOS, CONNECT Social Enterprise Development Services was engaged during the period January 2020 to March 2020. The specific objectives of the AOS were;

- Assess and validate the targets that the project intends to accomplish;
- Provide a more precise definition and understanding of the socio-economic status and vulnerability of tribal and PVTGs and issues related to tribal women;
- Identify problems and constraints that occur during project implementation;
- Provide actionable recommendations and improvement to project implementation.

2 METHODOLOGY
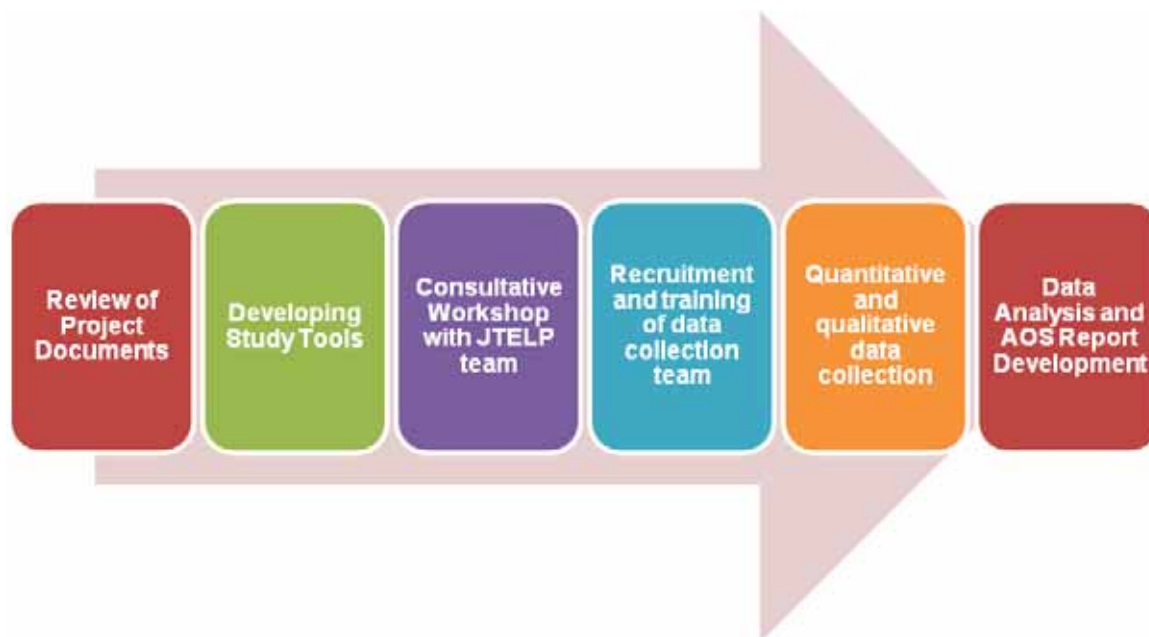
i. Conduct of AOS was started with review of project documents to gain understanding on the project. Following documents were shared by JTDS to CONNECT team.
- Project Implementation Manual
- Project logical framework updated up to December 2019.
- Last AOS questionnaire
- Last AOS report
- List of project districts, blocks and villages
- Livestock Intervention Statistics
- Agriculture Intervention Statistics

ii. Both quantitative and qualitative information were planned to be collected from various stakeholders. Draft structured questionnaire for household survey for covering treatment and control households was designed referring the previous AOS questionnaire and updated logical framework of the project. Draft questionnaire was shared with JTDS for its inputs. Based on the inputs received the questionnaire was finalized and translated. Final household survey questionnaire is attached as annexure-1 for reference. Semi-structured guidelines for Participatory appraisal tools such as focus group discussions (FGD) and key informant interviews (KII) were developed for collection of qualitative data.

iii. A consultative workshop was conducted on 1st February 2020 at JTDS premises with participation of State Project Management Unit (SPMU) and District Project Management Unit (DPMU) staff of JTELP and CONNECT AOS team. During the workshop AOS questionnaire and sample frame was shared with all district level staff so that local level logistic support could be arranged for the AOS team. Date wise action plan for data collection, data analysis and report submission was formulated during the workshop.

2.1 POPULATION AND SAMPLING

Overall, JTELP is envisaged to cover about 2, 11,000 households, in 1779 villages in 32 blocks of 14 Tribal Sub-plans districts. While working with all households in project villages, STs targeting has been ensured by choosing Panchayats with higher ST concentration. At least 10% households have been from PVTGs as they are poorest even among the STs. The project target groups are tribal households, including almost 10,000 PVTG households.

Terms of Reference (ToR) for AOS had clearly suggested the sampling approach to consider each block covered under the project to maintain representativeness of the population in the sample. Although, there were other ways of ensuring representation of the population in the sample, CONNECT had chosen to maintain the history of AOS but by bringing an empirically proven sampling strategy for the study.

Stratified random sampling was used keeping the diversity of the AOS in view and especially looking at different strata of the intervention like livelihood based on agriculture, vegetable production, livestock rearing and wage and allied types of livelihoods sources. Thus a robust approach was used for stratified random sampling to create strata. Probability proportional to size method was used to select villages from each stratum.

Under this strategy, the study population was stratified into the following strata;

a. Villages with intensive livestock intervention: Under this the livestock data shared by the project were matched with total number of project and found 45 perfectly matched villages. From this sample frame, using the above mentioned sampling approach, 10 villages were found eligible to be included in the sample. Livestock intensive village is a village where intensive livestock based training, demonstration, support, etc. were provided and community practices are monitored to see how these specific inputs are helping target communities.

b. Villages with intensive agriculture intervention: Under this category agriculture village data shared by the project were matched with project village list and 268 matched villages were matched. Considering this as the sample frame for this strata, using the prescribed sampling approach 16 eligible villages were selected to be included in the sample. Agriculture intensive village is a village where intensive agriculture based training, demonstration, seed support, etc. were provided and community practices are monitored to see how these specific inputs are helping target communities.

c. Villages with standard programme intervention: For standard programme villages, using the prescribed sampling approach using all the programme villages factoring out the intense intervention villages, 38 villages were selected under this strata. The standard programme village is a village where JTELP project intervened with its package of intervention to achieve its overall project objective.

Sampling for control villages was done by using secondary data from Census of India (2011) and considering high concentration of STs in the village. The control area was selected by selecting non-programme blocks within the district using random selection strategy. And then using the same sampling method mentioned above, 32 villages were selected to be considered as control villages.

The selection of sampling unit within the village was done using simple random sampling method to come up the derived sample size as prescribed in the ToR, i.e. selecting two programme villages from which 5 households each and one control villages from which sampling 10 households for the survey to come up at pre-determined sample size of 640 for the study from 96 villages. During the current round of AOS, quantitative data from a total of 652 samples; 322 treatment samples and 330 control samples spread across 64 blocks in 14 districts was collected. Detailed sampling frame is presented below.

TABLE 1 SAMPLING FRAME OF AOS

Districts and Blocks	Control		Treatment		Total	
	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered
Dumka	**3**	**31**	**4**	**20**	**7**	**51**
Gopikandar			2	10	2	10
Kathikund	3	31			3	31
Masalia			2	10	2	10
East Singhbhum	**1**	**10**	**4**	**20**	**5**	**30**
Boram	1	10			1	10
Dumaria			2	10	2	10
Potka			2	10	2	10
Godda	**1**	**10**	**4**	**20**	**5**	**30**
Boarijor			2	10	2	10
Sundatpahari			2	10	2	10
Thakurgangti	1	10			1	10
Gumla	**2**	**22**	**4**	**20**	**6**	**42**

Districts and Blocks	Control		Treatment		Total	
	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered
Bharno			2	10	2	10
Bishunpur	2	22			2	22
Sisai			2	10	2	10
Jamtara	**4**	**40**	**4**	**20**	**8**	**60**
Fatehpur			2	10	2	10
JAMTARA			2	10	2	10
Nala	4	40			4	40
Khunti	**4**	**41**	**4**	**20**	**8**	**61**
Arki			2	10	2	10
Karra			2	10	2	10
Torpa	4	41			4	41
Latehar	**4**	**40**	**4**	**20**	**8**	**60**
Barawidh			2	10	2	10
Garu	4	40			4	40
Manika			2	10	2	10
Lohardaga	**1**	**13**	**4**	**20**	**5**	**33**
Bhandra			2	10	2	10
Kairo			2	10	2	10
Kuru	1	13			1	13
Pakur	**2**	**20**	**4**	**20**	**6**	**40**
Amrapara			2	10	2	10
Hiranpur	2	20			2	20
Littipara			2	10	2	10
Ranchi	**3**	**33**	**6**	**30**	**9**	**63**
Angara			2	10	2	10
Bundu			2	10	2	10
Silli	3	33			3	33
Tamar			2	10	2	10
Sahibganj	**1**	**10**	**4**	**20**	**5**	**30**
Borio			2	10	2	10
Mandro	1	10			1	10
Taljhari			2	10	2	10
Saraikela			**6**	**32**	**6**	**32**
Rajnagar			2	12	2	12
Kuchai			2	10	2	10
Saraikela			2	10	2	10
Saraikela-Kharsawan	**1**	**10**			**1**	**10**
Kukru	1	10			1	10
Simdega	**2**	**21**	**4**	**20**	**6**	**41**
Kurdeg	1	10	2	10	3	20
Pakar Tanr	1	11			1	11
Sadar Simdega			2	10	2	10
West Singhbhum	**3**	**29**	**8**	**40**	**11**	**69**
Bandgaon	3	29			3	29

Districts and Blocks	Control		Treatment		Total	
	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered	No. of village covered	No. of Samples Covered
Goilkera			2	9	2	9
Khutpani			2	10	2	10
Sonua			2	11	2	11
Tonto			2	10	2	10
Grand Total	32	330	64	322	96	652

2.2 DATA COLLECTION METHODS

Quantitative Data Collection:

- Quantitative data was collected through a structured questionnaire-based household survey by a team of enumerators under the supervision of field supervisors, and support of data manager cum analyst.
- A total of 20 enumerators were engaged for data collection. The enumerators were from local area with fluency in local language. This helped in data collection as enumerators were versed with the local area, culture and language. Three of the experienced enumerators performed the role of field supervisors as well. Small teams were developed with 3-4 enumerators and a field supervisor for the purpose of data collection. A data manager cum data analyst supported the supervisors in the quality control of data collection.
- Computer assisted personal interviewing (CAPI) method was used for administer of the household survey using mwater surveyor software and smart phones.
- Three days training programs for data collection team was conducted on 2nd-4th February 2020 serving the dual purpose of field testing of tools and field practice of study tools.
- Daily download and review of the data collected was done to ensure quality control. Additionally, 5% of sample data was cross-checked by the field supervisors and CONNECT AOS team comprising of three professionals.

Qualitative Data Collection:

- 10 FGDs and 17 KIIs with various stakeholders such as project beneficiaries, SHGs, youth groups, PRI representatives, Aganwadi and ASHA workers, project staff, FNGO staff were conducted by the CONNECT AOS team. The proceeding of FGDs and KIIs were recorded.

2.3 DATA ANALYSIS

Statistical software STATA was used for data analysis. Data set from CAPI was exported in Ms-Excel. Data analysis started after a thorough checking and cleaning the data. Then cleaned data in Ms Excel was exported to STATA. Analysis was conducted in the line of standard data analysis protocol for two arms sample studies which means, proportion and percentages were produced and reported. As a pre analysis work, substantial amount of work had been focused to develop a set of indicators using variables from the cleaned dataset so as to make the analysis process error free and robust. In other words, for a particular variable if the respondent choose not to respond per say, are excluded from the indicator as it would give a biased result if considered under the analysis. For binary indicators we presented the proportions and for continuous variables we presented the means for both the groups i.e. control and treatment. For each of the reported indicators, the analysis undertook robustness check and statistical significance test by using ordinary least square regressions and t-test to see whether the difference in mean is statistically significant or not. The significance level are marked using appropriate asterisk and corresponding notes in the results table. Last AOS i.e. 4th AOS data as reported in Last AOS report was used for comparison and assessment of change.

2.4 LIMITATIONS AND CHALLENGES FACED

Following were the challenges faced by the AOS team during the assignment.

- AOS study area was spread across 64 blocks in 14 districts including treatment and control samples. Moreover these villages were largely remote with bad road conditions. Hence, it was challenging for the data collection team to cover such a vast study area in a short duration.

- Majority of the respondents used to respond to AOS in local language only. Though, we could tackle the issue with the engagement of local enumerators, the team found it challenging.
- Some of the study areas are disturbed with extremism. The study team had to take the support of local people in approaching some of the sample villages.

3 MAJOR FINDINGS

3.1 DEMOGRAPHIC ATTRIBUTES OF RESPONDENTS

3.1.1 CASTE
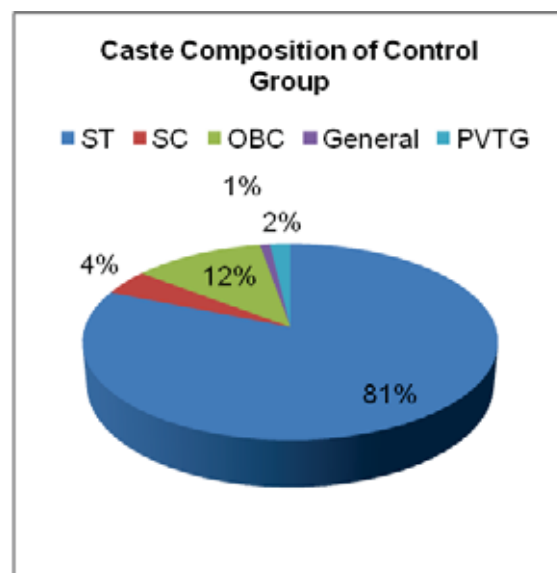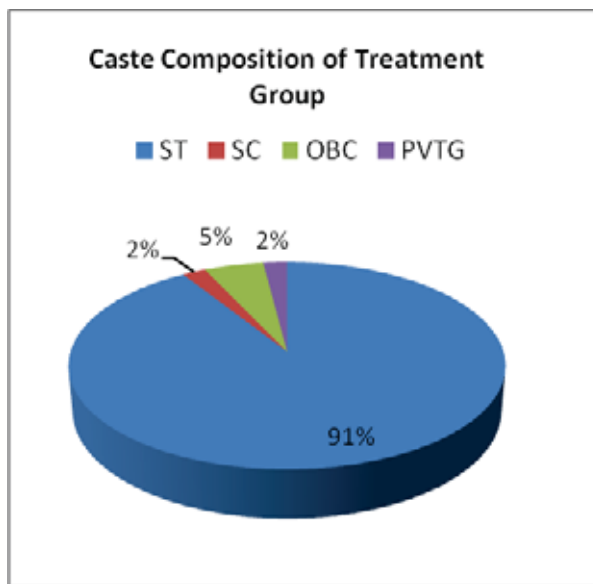
The analysis of caste categories of the treatment and control samples affirmed that the control samples were comparable with the treatment samples. 91%, 2%, 5% and 2% of the treatment samples belonged to ST, SC, OBC and PVTG category respectively. Similar proportion of these caste groups was found among the control samples also as 81%, 4%, 12% and 1% of the control samples belonged to these categories.

TABLE 2 CASTE COMPOSITION

| Social category	Control		Treatment	
	5th AOS	4th AOS	5th AOS	4th AOS
ST	81.21%	89.95%	90.99%	94.69%
SC	4.24%	2.87%	1.55%	1.33%
OBC	11.82%	5.74%	4.97%	0.33%
General	0.91%	0.96%	0.00%	0.00%
PVTG	1.82%	0.48%	2.48%	3.65%
Total	100.00%	100.00%	100.00%	100.00%
Count	330	209	322	301

In comparison to last AOS, proportion of ST to the total population in the project villages in this AOS was found to be largely same. This reflected that JTELP team could retain its focus of working with STs in last 12 months also. This reflected effectiveness of the targeting strategy deployed under JTELP.

3.1.2 POVERTY LINES

FIGURE 1 BPL AND ANTODAYA CARD HOLDING
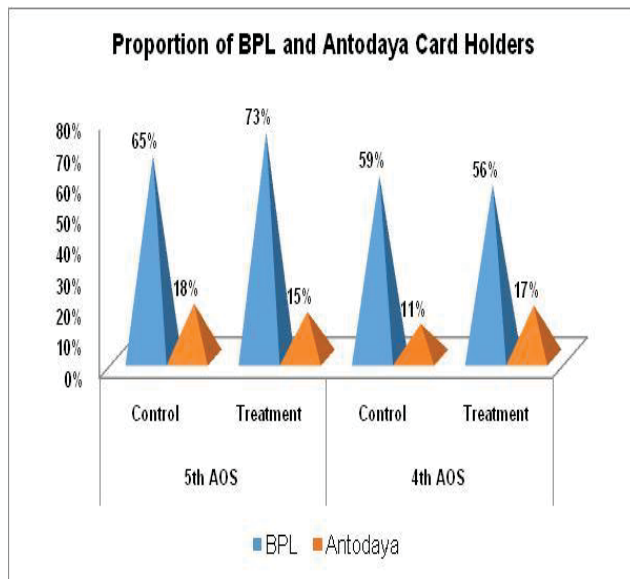
In 5th round of AOS, it was found that 73% and 15% of treatment farmers bear BPL and Antodaya card affirming higher poverty levels than the control samples. Among the control samples 65% and 18% reported to be holding these cards respectively. This again supported the targeting strategy deployed under JTELP.

3.1.3   HEAD OF THE HOUSEHOLDS

TABLE 3 GENDER OF HEAD OF HOUSEHOLD

Household head	Control		Treatment	
	5th AOS	4th AOS	5th AOS	4th AOS
Male	86.67%	86.00%	88.20%	88.00%
Female	13.33%	14.00%	11.80%	12.00%

Table-3 presents the analysis of gender of head of household. It was found that proportion of female headed household in both the treatment and control villages remained the same in this and last round of AOS. Table-3 also confirmed the comparability of the control samples with that of the treatment samples in the 5th round of AOS as in case of control villages, 13% of the samples households were female headed and in case of treatment villages 12% of the households reported to be female headed.

3.1.4   EDUCATION LEVELS

FIGURE 2 EDUCATION LEVEL OF TREATMENT AND CONTROL SAMPLES
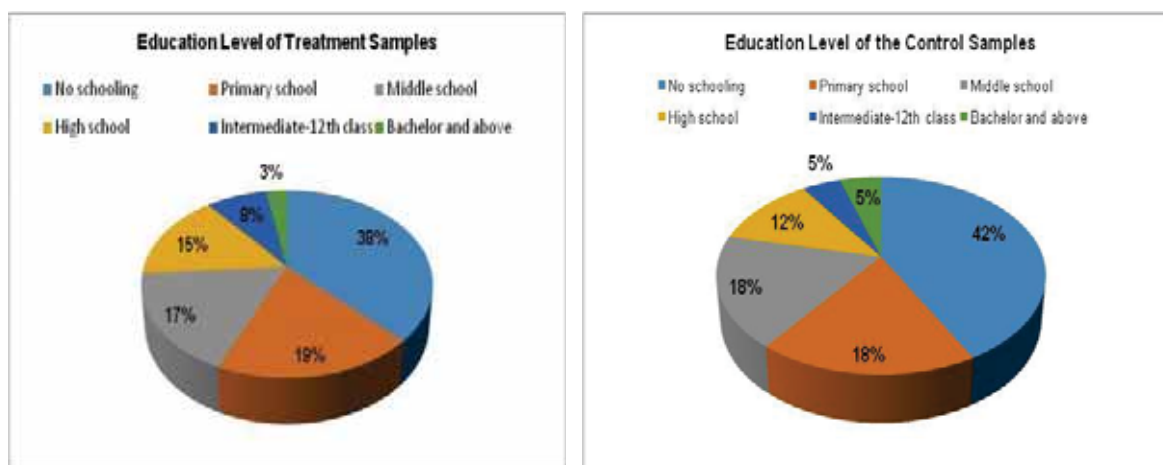
Analysis of education level of treatment and control samples revealed that still 38% of the respondents in treatment villages had no schooling. Only 15%, 8% and 3% of the treatment samples had education level up to high school, intermediate and bachelor and above levels respectively. This reflected the backwardness of the project villages. The control samples had similar education levels with that of the treatment samples.

3.1.5   PRIMARY AND SECONDARY OCCUPATION

TABLE 4 PRIMARY OCCUPATION

Primary occupation	Control	Treatment
Own farming	89.7	94.1
Livestock production	0.3	0.31
Fishing/aquaculture	0.3	-
Farm labour	2.73	0.93
Other daily labour	3.64	1.24
Skilled labour	0.91	1.24
Salary/regular job	0.91	0.62
Petty trade/small shop	0.91	0.93
Handicrafts/weaving	0.61	0
Own enterprise	0	0.31
Remittance	0	0.31
Count of Samples	330	322

Primary Occupation

Top most primary occupation reported in this round of AOS was "Own Farming" as 89.7% and 94.1% of control and treatment samples responded that own farming was their primary occupation. In last AOS also, 94% and 89% of treatment and control samples reported to have own farming as primary occupation.

Secondary Occupation

The analysis of responses on secondary occupation revealed that around 71% and 82% of treatment and control samples reported to have secondary occupation while rest had just primary occupation. Of those who reported to have secondary occupation, the top most secondary occupation was other daily wage labour as 55% of treatment and 68% of control samples reported to have daily wage labour as their secondary occupation. The reason of lesser proportion of treatment samples reporting wage labour as their secondary occupation than the control samples was that 13% of treatment samples reported

TABLE 5 SECONDARY OCCUPATION

Secondary Occupation	Control	Treatment
Own farming	4.06	3.06
Livestock production	5.17	13.1
Fishing/aquaculture	0.74	0.87
Farm labour	11.44	8.3
Other daily labour	67.9	55.02
Skilled labour	3.32	3.06
Salary/regular job	1.48	3.06
Pension	1.11	3.49
Petty trade/small shop	2.95	6.99
Handicrafts/weaving	1.11	0.44
Remittance	0.37	0
Own enterprise		1.31
Non-timber forest products(NTFP)		0.87
Others	0.37	0.44
Count of Samples	271	229

livestock production as their secondary occupation while only 5% of control samples reported the same. This might be because of the livelihood interventions on livestock production done under the JTELP.

3.2 HOUSING AND SANITATION STATUS

FIGURE 3 TYPE OF HOUSING FACILITY
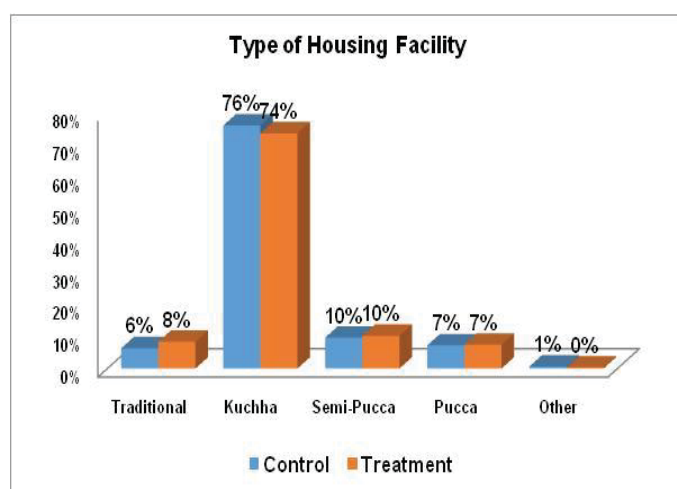
Comparisons of housing facility of control and treatment samples indicated that dwelling type was same among both categories of samples as 82% of control and treatment samples reported to dwell in traditional and kuchha houses. In comparison to the last AOS, the dwelling facility has not changed much. In last AOS, 88% and 83% of control and treatment samples had reported to dwell in traditional houses.

TABLE 6 HOUSE EXPANSION AND IMPROVEMENT IN WATER SUPPLY & SANITATION

House expansion happened in last 12 months	Control	Treatment
Yes	22.42%	31.99%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		
Water supply and sanitation improved in last 12 months	Control	Treatment
Yes	30.00%	47.83%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

The above table depicted that more proportion of treatment samples undertook house expansion in last 12 months than the control samples and the difference was highly significant as emerged from the significance test (p<0.01). Similar trend was found in case of improvement in water supply and sanitation conditions. 47.83% of treatment samples reported to have improvement in water supply and sanitation conditions while around 30% of control samples reported the same.

3.3 ASSET PURCHASE

TABLE 7 PURCHASE OF ASSETS IN LAST 12 MONTHS

Indicator-Household asset	Control	Treatment
Bed	1.84%	1.58%
Bicycle	4.29%	6.01%
Electronics (includes freeze, cooler, AC, Mobile, etc)	91.10%	85.44%
Jewellery	0.31%	0.95%
Motor cycle	2.15%	5.06%
TV	0.31%	0.95%
Count	326	316

Overall a sharp increase was found in proportion of both samples reporting purchase of any new asset in last 12 months in comparison to last AOS. In 5th AOS, it was found that 99% and 98% of treatment and control samples reported to purchase at least one asset, while in 4th AOS only 48% and 25% of treatment and control samples reported the same. Major asset purchased by both control and treatment samples were electronics items and motorcycles.

3.4 FOOD AVAILABILITY

Food Shortage and Overall Availability of Food

TABLE 8 SAMPLES EXPERIENCED FOOD SHORTAGE LAST YEAR

Indicator	Control	Treatment
Experienced food shortage	22.73%	17.08%*
Count of Samples	330	322
*** p<0.01, ** p<0.05, * p<0.1		
overall availability of food during last 12 months	Control	Treatment
Improved	21.33%	52.73%***
Same	66.67%	40%***
Got worse	12.00%	7.27%***
*** p<0.01, ** p<0.05, * p<0.1		

The conditions of treatment samples in terms of food availability for round the year was slightly better than the control samples as 17% of treatment samples reported food shortage last year, while around 23% of control sample reported the same. However the difference was insignificant as emerged from the significance test.

In terms of availability of food during last 12 months, a significant proportion of treatment samples (53%) reported improvement. On the contrary only 21.33% of control samples reported the same. Proportion of treatment samples reported of same level and decline of food availability was much lesser than reported by control samples. This emphasized the improved availability of food among the treatment samples. However, in comparison to last AOS, % of treatment and control samples reporting improvement in overall food availability was lower in the current AOS. In 4th round of AOS, 64% and 24% of treatment and control samples reported improvement in overall availability of food during last 12 months respectively. This was mainly because last year production was used for consumption during last 12 months. Last year (2018), the average productivity of paddy was lower than that in the year 2017 because of

drought in the 2018 "kharif" season. Hence, the average production of paddy per family was reduced in 2018. This led to the reduced level of average food availability per family in 2019 as reported in the current AOS.

Access to Public Distribution System

FIGURE 4 ACCESS TO PDS
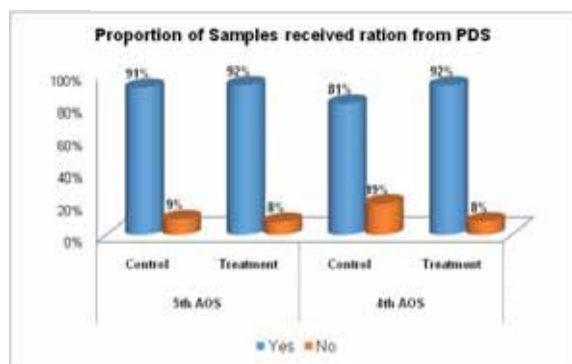
Access to public distribution system (PDS) was found to remain same for treatment samples in comparison to last year. However, in last 12 months more % of control samples reported to be receiving from food grain from public distribution system.

Quality and Type of Food Consumed

TABLE 9 QUALITY AND TYPE OF FOOD CONSUMED

Type of Food	Quality and type of food consumed by household changed in the last 12 months	Control	Treatment
Cereals	Improved	51%	56%
	Same	45%	40%
	Got worse	4%	3%
Vegetables	Improved	37%	51%
	Same	57%	45%
	Got worse	6%	4%
Pulses	Improved	24%	41%
	Same	66%	50%
	Got worse	10%	9%
Fruits	Improved	5%	12%
	Same	74%	68%
	Got worse	21%	20%
Milk	Improved	4%	8%
	Same	67%	62%
	Got worse	29%	30%
Eggs	Improved	7%	16%
	Same	77%	66%
	Got worse	17%	18%

Table-9 confirms the improvement in quality and type of food consumed by both the treatment and control samples. However, more number of treatment samples reported improvement in quality for all food groups than the control samples. The difference was found to be sharp in consumption of vegetables, pulses and eggs. JTELP intervention on vegetables, pulses, and poultry might have contributed to the sharp improvement in consumption of these food groups among the treatment samples. In comparison to last AOS (15%), a sharp improvement in quality of food was reported in the current AOS.

3.5 PROJECT PARTICIPATION

3.5.1 MEMBERSHIP IN COMMUNITY INSTITUTION

TABLE 10 MEMBERSHIP IN SHGS

AOS No.	Indicator	Control	Treatment
5th AOS	Member of a SHG	56.36%	82.61%***
	Count of Samples	330	322
	*** p<0.01, ** p<0.05, * p<0.1		
4th AOS	Member of a SHG	55%	77%

In 5th round of AOS, an increase in membership with SHG was found among the treatment samples in comparison to the last round of AOS. 82.61% of the treatment samples reported to be part of an SHG, higher than the % of treatment samples in last AOS (77%). However, the control samples did not experience much of change in membership with SHG. With the significance test conducted with treatment and control responses, it was found that there was a strong evidence ($p<0.01$) of existence of difference between treatment and control samples with respect to membership with an SHG.

In the current AOS, among those who were part of SHGs, 46.28% of the samples were part of JTELP-SHGs while rest was part of Jharkhand State Livelihood Promotion Society (JSPLS) SHGs. This was largely because; many of the JTELP SHGs were handed over to JSPLS as part of JTELP strategy.

In the current AOS, it was also found that 10% and 3.42% of treatment samples reported to be part of youth and livestock groups respectively. On the contrary almost 100% of the control samples reported to be not part of any youth or livestock group.

3.5.2 TRAININGS RECEIVED

FIGURE 5 SAMPLES RECEIVED TRAINING ON VARIOUS TOPICS

Even though lesser proportion of treatment samples reported to have received training on various topics in comparison to last AOS, difference between training received by treatment and control farmers was found be significant(p<0.01). Top most topic on which treatment farmers had received training was crop & horticulture production (36%) followed by training on SHG management (15%). Receipt of training on other topics such as enterprise development and management, and natural resource management was found to minimal among both treatment and control samples. This indicated that a larger effort

from JTELP is needed to provide training to JTELP beneficiaries on the above mentioned topics.
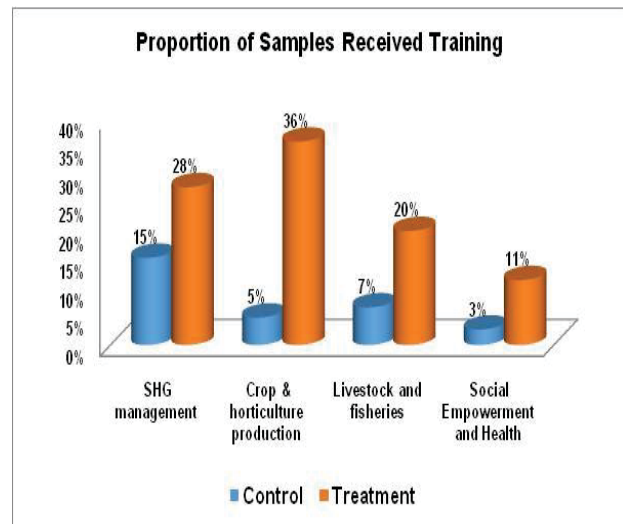
FGD with beneficiaries confirms that training and guidance are required to learn and practice improved crop and horticulture production (source: FGD with beneficiaries in Saraikela-Kharswan district).

3.6 FINANCIAL INCLUSION

3.6.1 SAVINGS AND BANK ACCOUNT

FIGURE 6 SAMPLES HAVING SAVINGS AND BANK ACCOUNT
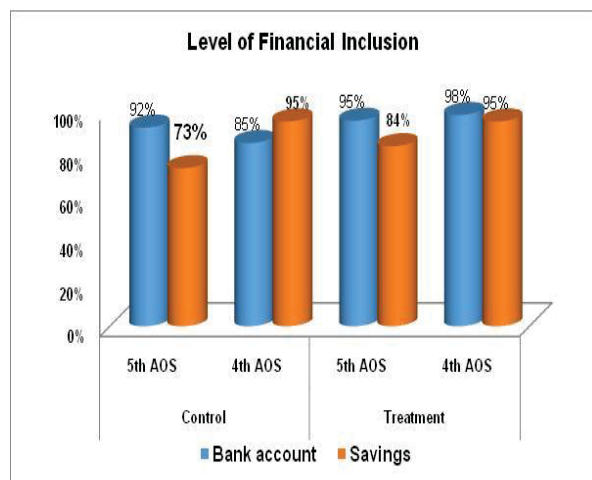
Comparison of responses on availability of any savings and bank account in two rounds of AOS revealed that while % the treatment samples having bank account remained more or less same, the same % increased for control samples from 86% in 4th AOS to 92% in 5th AOS. Decreasing trend was found for savings in both sets of samples over the two rounds of AOS. While in last AOS, 95% of treatment samples reported to have some savings, this year 84% of treatment samples reported the same. The dip was more in case of control farmers from 95% in 4th AOS to 73% in 5th AOS.

Savings Mode

TABLE 11 SAVINGS MODE

Savings Mode	Control			Treatment		
	4th AOS	5th AOS	5th AOS Average Amount saved per family in INR	4th AOS	5th AOS	5th AOS Average Amount saved per family in INR
Saving at bank	76	87%	10,470	89	94%	9,647
Savings with SHG	36	40%	2148	72	58%	3,452*
Savings with PO	7	1%	46,800	5	1%	33,233
Savings with other agency	2	0%		7	2%	7,560
Savings in cash	32	60%	951	49	65%	1,220
*** p<0.01, ** p<0.05, * p<0.1						

The analysis of savings mode revealed that savings at bank was the top most preferred source in both rounds of AOS and among both sets of samples. % of both sets of samples saved at bank was high with high average savings per family of INR 9,647 for treatment samples and INR 10,470 for control samples. More proportion of treatment samples reported to save at SHG

than the control samples in the current AOS. This finding was in line with more % of treatment samples being members of SHGs than the control samples as discussed in previous section. However, though 83% treatment samples reported to have membership with SHGs, only 58% reported to save at SHGs. This points outs at the need to focus on the functioning of SHGs.

3.6.2 ACCESS TO CREDIT

Loan from Various sources

TABLE 12 LOAN FROM VARIOUS SOURCES

Indicator-Loan	Control		Treatment	
	Count of samples	Average loan INR	Count of samples	Average loan INR
Loan from bank	9	24878	11	19091
Old loan from bank	2	49	2	17500
Loan from SHG	30	13684	13	5715*
Loan from other agency	2	24783	0	
Cash loan	3	11333	1	3000
Loan from money lender	2	10400	2	11500
*** p<0.01, ** p<0.05, * p<0.1				

Minimal number of samples reported to have taken loan from any sources, especially in case of treatment samples as evident from table-12. Loan from SHG was found to be poor in case of treatment samples looking at the large membership of treatment samples with SHGs. This indicated that the SHGs were not being properly used for accessing savings and credits.

Low performance of SHGs in providing savings and credit services to project beneficiaries as evident from the above analysis of AOS survey was found to be in congruence with the observations on quality of SHGs during conduct of FGDs as part of AOS. FGDs with three SHGs were conducted as part of the qualitative data collection under AOS. During field visit by CONNECT team, it was found that SHGs formed under JTELP were in the process of being handed over to JSLPS. The SHGs visited were found to be not conducting their meetings regularly. Even the members were not saving regularly. Internal lending among the SHG members was low. SHG members were also found to be apprehensive and not confident in accessing banks even for savings services. As the handing over process to JSLPS is in progress therefore it is expected that after handing over these concerns would be taken care by the JSLPS.

Access to Insurance

FIGURE 7 ACCESS TO INSURANCE
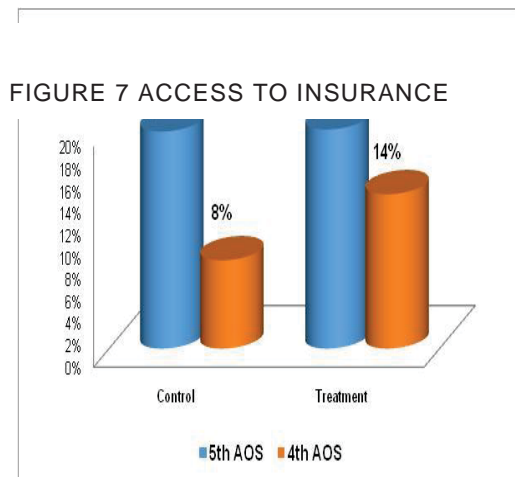
Improvement in access to insurance by both set of samples was found in the current AOS compared to last AOS. % of treatment samples who had insurance policy increased from 14% in last AOS to 20% in

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current AOS. The quantum of increase was found to be more in case of control sample than among the treatment samples.

3.7 KNOWLEDGE AND ADOPTION OF IMPROVED PRACTICES

TABLE 13 KNOWLEDGE AND ADOPTION OF IMPROVED PRACTICES

Aspect		DSR/Line Sowing		Improved Vegetables		Improved Livestock		Barbatti Cultivation	
Know	% with Yes	30%	42%***	31%	33%	26%	22%	19%	17%
	Count of samples	330	322	330	322	330	322	330	322
Tried	% with Yes	86%	93%*	86%	93%*	95%	96%	81%	91%***
	Count of samples	100	134	103	106	85	71	64	54
Think useful	% with Yes	100%	100%	100%	99%	100%	99%	98%	93%
	Count of samples	100	134	103	106	81	68	52	49
Adopted	% with Yes	71%	81%***	65%	90%	94%	88%	75%	96%
	Count of samples	86	124	89	99	81	68	51	46

The above table indicated that the knowhow and adoption of improved paddy cultivation practices such as DSR or line sowing among the treatment samples occupied the top most position in terms of knowledge and adoption of improved practices. The second most tried activity was improved vegetable cultivation as 33% of treatment farmers knew about the practices and out of those 90% reported to have adopted. Knowledge on other practices like mango plantation was reported by minimal number of both treatment and control samples.

3.8 AVAILABILITY OF IRRIGATION

TABLE 14 USAGE OF IRRIGATION FACILITY

Proportion of Samples have used irrigation Facility
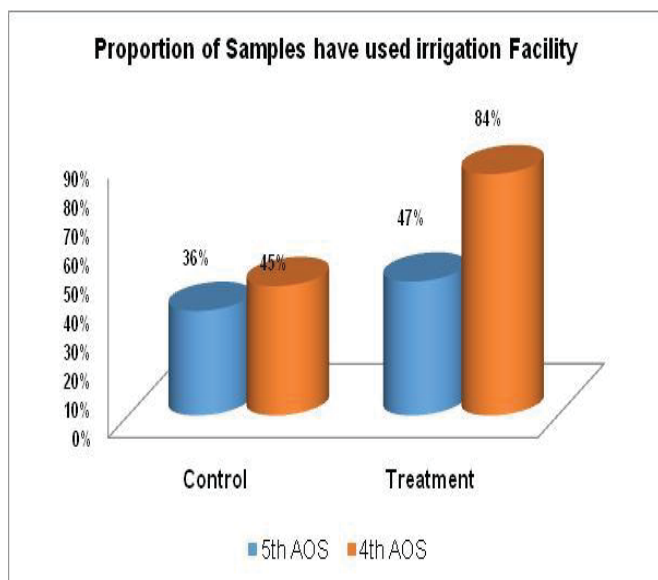
Overall, it was found that during 5th AOS lesser proportion of both treatment and control samples reported to have used irrigation sources such as pond and shallow well in comparison to 4th AOS. However, access to irrigation was found to be better among the treatment samples (45%) than the control samples (36%).

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TABLE 15 USAGE OF IRRIGATION IN VARIOUS SEASONS

Indicator	Unit	Kharif		Rabi		Summer	
		Control	Treatment	Control	Treatment	Control	Treatment
Used pond/shallow well for irrigation	%	79.17%	65.33%	68.91%	81.21%**	27.12%	34.46%
	count of samples	120	150	119	149	119	148
No of days used irrigation	No.	9.295	13.041	14.134	18.769	25.469	23.176
Area irrigated	In acre	2.450	2.284	2.655	3.602	3.702	1.518
	count of samples	95	98	95	98	32	51
Used pump to lift water for irrigation	%	90.53%	91.84%	97.56%	89.92%	90.63%	90.20%
	count of samples	95	98	82	119	32	51
Used Pump for irrigation supplied by JTELP	%	1.16%	15.56%***	1.25%	15.89%***	0.00%	0.00%
	count of samples	86	90	80	107	29	45

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Of the samples who reported to have used irrigation in last 12 months, maximum of treatment farmers reported to have used in Rabi season followed by in kharif and lastly in summer season. Lesser proportion of control samples used irrigation in Rabi and summer season than the treatment samples. The average number of days of irrigation was slightly more in case of treatment samples than the control samples. Of the treatment samples that had used irrigation in kharif and Rabi seasons, around 16% had reported to have used pump sets supplied by JTELP. Overall, this indicated better access to irrigation among the treatment samples than the control samples.

3.9 PRODUCTION AND INCOME FROM VARIOUS SOURCES

3.9.1 AGRICULTURE

3.9.1.1 LANDHOLDING

TABLE 16 CULTIVABLE LAND AVAILABILITY OWN AND LEASED

Indicator	Control	Treatment
% of samples own cultivable land	94%	99%
Average own cultivable land area per family in acre	3.003	2.939
% of samples with lease land	52%	43%
Average leased cultivable land area per family in acre	0.902	1.494

In comparison to last AOS, the land ownership among treatment samples was found to be increased as only 1% of the treatment samples reported to be landless in the current AOS, whereas in last AOS, 3% of the treatment samples reported to be landless. In comparison to control farmers more % of treatment samples reported to own land; however the average landholding was lesser among the treatment samples. Accordingly average area of lease land taken by 43% of treatment farmers was larger than the control samples.

3.9.1.2 AREA UNDER VARIOUS CROPS

TABLE 17 AREA UNDER VARIOUS CROPS

Crops	5th AOS, % of sample grow		4th AOS, % of sample Grow		5th AOS-Average Area per family in acre	
	Control	Treatment	Control	Treatment	Control	Treatment
Paddy	99%	99%	95%	99%	2.341	2.147
Maize	33%	36%	26%	41%	0.3	0.445***
Oilseed	22%	41%	14%	37%	0.395	0.421
Pulse	23%	35%	28%	52%	0.389	0.566
Vegetables	22%	32%	32%	72%	0.361	0.547
Barbatti	2%	8%			0.497	0.373

Table-17 demonstrated that almost 100% of both treatment and control samples with cultivable land were engaged in paddy cultivation similar to last AOS. However, proportion of both control and treatment farmers growing maize, pulses and vegetables was found to be reduced at the current round of AOS in comparison to the previous round, except in case of oilseed. Comparison of control and treatment samples in 5th AOS revealed that more number of treatment samples grew all crops than the control samples, especially oilseed and pulse. The recent boost of oilseed and pulse production under JTELP might have contributed to the increase in % of treatment samples growing these crops.

3.9.1.3 PRODUCTION AND INCOME FROM VARIOUS CROPS

Crop	Sample	5th AOS				4th AOS		
		Average productivity(Quintal /Acre)	% of sample reported surplus for sale	Income from surplus sale in INR	Average cost of cultivation per family in INR	Average productivity(quintal/Acre)	% of sample reported surplus for sale	Income from surplus sale in INR
Paddy	C	8.964	29%	12,741.289	10,081.046	7.92	33%	8,255
	T	10.536	34%	22435.133***	14155.911***	9.85	64%	16,665
Maize	C	5.772	84%	679.593	2,695.341	5.66	8%	524
	T	6.648	68%	2991.532**	2,953.413	10.09	17%	812
Oilseed	C	2.840	73%	247.755	1,468.319	7.4	2%	371
	T	3.131	69%	1091.648**	2495.227***	1.82	14%	1,777
Pulse	C	2.375	81%	306.897	2,030.649	5.97	6%	1,432
	T	2.532	78%	2455.862***	3,171.747	2.03	20%	3,044
Vegetables	C	22.973	97%	2,459.848	4,688.525	17.54	16%	2,176
	T	24.341**	93%	6,603.379	6,129.010	17.73	57%	7,751
Barbatti	C	13.333	60%	50.300	1,051.333			
	T	27.172	92%	4,762.886	1,254.450			

C=Control, T= Treatment, *** p<0.01, ** p<0.05, * p<0.1

The above table depicted comparison of productivity and income from various crops between 5th and 4th round of AOS. The analysis revealed that productivity levels for almost all crops, except maize was found to be increased in 5th AOS among the treatment farmers. On the contrary the control farmers had experienced dip in productivity levels in case of oilseeds and pulses. In case of paddy, both sets of samples reported to experience more or less same quantum of increase in productivity levels. Similar trend was found in case of income from various crops. In case of maize, the treatment samples reported to experience a huge dip in productivity from 10.09 Quintal/acre in 4th AOS to 6.648 quintals/acre. One of the contributory factors to this dip in productivity of maize might be due to late rainfall which effects overall maize production of this region which was quite poor. Just after sowing, due to lack of moisture seed germination affected a lot. During earthing up stage lack of rainfall, farmers couldn't perform it properly. Apart from that attack of Fall Army Worm (FAW) at the knee height stage affected the growth of Maize significantly.

A deeper level analysis of 5th AOS data on maize productivity of Ranchi and Santhal Pargana divisions revealed that while the average productivity of maize in Ranchi division was 7.74 quintals per acre, Santhal Pargana division reported an average maize productivity of 5.24 quintals/acre. The significant test (t-test) conducted between treatment and control samples in

5th AOS emphasized that there was significant difference between the productivity of vegetables between both the groups of samples. In terms of income, in case of paddy and pulse, t-test provided strong evidence towards the difference in income from paddy and pulse between the two sets of samples.

KIIs with project and FNGOs staff revealed that data of those farmers who had not taken seed from JTDS but adopted the line sowing method in paddy was not captured by the staff. The understanding of cadre and staff of FNGO was that they were supposed to monitor and capture the data of only those families who had received the material inputs from the project. There was a lack of technical training and handholding support to farmers at field level as emerged from discussion with FNGO staff and beneficiaries as well.

During field visit, CONNECT team also had couple of findings on the variety of seeds distributed under JTELP. Swarna variety of paddy seeds was distributed under JTELP in Angara block of Ranchi district. Farmers shared that they found the yield of Swarna variety of paddy was lower than the sahbhagi variety of paddy usually grown by them. Upon checking with project staff, it was found that Swarna Sub-1 is a long duration variety (140-145 days) for low land in general and it should be transplanted in the month of July. However, in year 2019 due to erratic rainfall (frequent rainfall) in July month, farmers could not transplant in July. Accordingly transplantation was delayed to August month which impacted the yield from the variety. In fact, due to prolonged dry spell (more than 30-35 days) just after paddy transplantation didn't allow the farmers to do inter-culture operation. On the other hand, the variety called Shabhagi is short duration variety and suitable for Don-3. Last year such short duration variety with DSR method performed well as a good climate resilience crop.

Another observation was on the maize variety distributed in Basbera village of Taljhari block of Sahibganj district. Farmers usually grow maize in uplands mostly pahari land characterized with low fertility. Farmers shared of experience of low yield from the maize variety distributed under JTELP coupled with high level of pest attacks. It was found that the variety distributed to this area was Farm Sona which is high yield variety. This variety also requires proper fertiliser application for optimum production. As the beneficiaries were mostly from the PVTG community therefore proper POP was not followed and also the erratic rain and attack of Fall Army Worm (FAW) affected the yield in a great way.

CONNECT team also had observation on variety of Jowar (Sorghum) distributed in Basbera village, Sahibganj under JTELP. The Jowar seed variety distributed was CSH24 of red colour. On the contrary there was demand for white Jowar in the local market and because of that farmer found hard to sell their produce in the local market. Farmers also experienced lesser yield in comparison to their local variety.

Hence, it is very important that seed variety to be distributed /promoted should be finalized after exploration of their duration and suitability to local area keeping the soil types, local practice, time of sowing, etc into consideration. There is also a need of prior discussion with community before finalization of variety of seeds for various crops.

3.9.1.4 INCOME FROM AGRICULTURE

TABLE 18 INCOME FROM AGRICULTURE

Indicator: Total income	Control		Treatment	
	Income in INR	% samples reported.	Income in INR	% samples reported.
Net income from Agriculture	-4,908.753	56%	1,682.474***	60%
Total income from Agriculture	7,764.455	58%	19,229.35***	60%
*** p<0.01, ** p<0.05, * p<0.1				

Significant difference in total income and net income from agriculture was found between treatment and control samples. Total income from agriculture among the treatment samples was more than double of that of control samples. Also slightly more proportion of treatment samples reported income from agriculture than the control samples. Though the income has improved but not at the rate with which the production has been increased due to the fact, the target community of JTDS is mostly tribal and their food sufficiency varies in between 5-7 months. After the intervention of JTDS, the food sufficiency has been enhanced up to 7-8 months and therefore not much marketable surplus has been generated at their end. In all most all of the cases, tribal usually sale their food grains under distress condition and therefore, the income figure from agriculture is showing low.

3.9.2   LIVESTOCK PRODUCTION

3.9.2.1   FISHERY

TABLE 19 INCOME FROM FISH FARMING

Indicator	Control	Treatment
% of Household with remaining fish in pond	1.82%	4.35%
Average quantity of fish per family in quintals	3	12.363
Value of remaining fish in pond per family in INR	13086	36358.33

In comparison to last AOS, this time lesser proportion of both treatment and control reported to have remaining fish in pond. In last AOS, it was reported that 26% and 3% of treatment and control samples were involved in fish farming respectively. The reduction in % of treatment samples was sharp in 5th AOS. This was because this time 5th round of AOS was administered in the month of January during which majority of the fish catching activity happened, while 4th AOS was conducted in the month of December and fish was yet to be caught and hence was remaining in pond. However, the average quantity of fish per family was found to be increased many folds in 5th AOS as in 4th AOS average fish production per treatment sample was only 1.59 quintals.

Qualitative data reflects that individual household opting for fish farming was low. KII with President of GSPEC confirmed that most of the fish farming in the villages was managed by GSPEC (source: KII with GSPEC President, Saraikela-Kharswan).

3.9.2.2 LIVESTOCK

FIGURE 8 OWNERSHIP OF LIVESTOCK
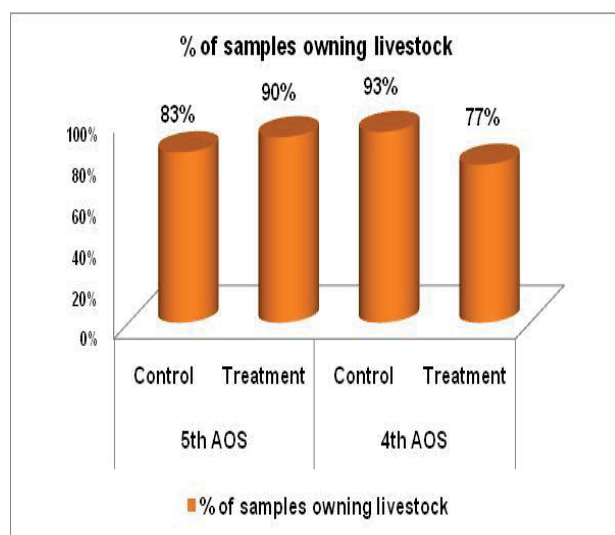
A sharp increase in livestock ownership was found among the treatment samples in 5th AOS (90%) than reported in 4th AOS (77%). On the contrary a dip in % of control samples owning any livestock was found in 5th AOS. Livestock support provided under the JTELP might have contributed to the above increase. The increase in livestock ownership was found to be in sync with more proportion of treatment farmers reported livestock production as their secondary occupation as explained in earlier section.

TABLE 20 INCOME FROM LIVESTOCK

Livestock	Control		Treatment		Control		Treatment	
	Income	% of samples own	Income	% of samples own	Income	% of own	Income	% of samples own
Pig	1,459	22%	1,173	20%	3,235	10	10,490	23
Goat	749	55%	472	62%	3,919	23	5,231	39
Poultry	127	100%	251	66%	962	22	2,922	43

Low returns from livestock rearing as evident from the above table was found to be in alignment with the qualitative information collected during conduct of field observation, FGDs and KII. High level of mortality of around 60-70% in the initial period among goat was observed during field work conducted by CONNECT team. This was largely because of lack of hand holding support on improved rearing practices and unavailability of veterinary care services at field level. Recent initiative of the project team was also noticed and shared during field work. A revenue based system of Pashu Sakhi has been introduced recently to provide the direct support to the

farmers. Some FNGO have also started giving training to the farmers on goat rearing through RUDSETI. However such initiatives would take some time to yield results.

3.9.3 WAGE LABOUR

3.9.3.1 EMPLYOMENT GENERATION AND JTELP

TABLE 21 WAGE INCOME TREND

Wage Income	Overall		Female	
	Control	Treatment	Control	Treatment
Significantly gone up		9%		7%
Moderately gone up		34%		27%
More or less same	18%	44%	18%	52%
Moderately gone down		1%		2%
Significantly gone down		1%	0%	2%
Don't Know	82%	11%	82%	11%

More than 50% of the treatment samples reported that the wage income had gone up either significantly or moderately gone up. Only 2% reported that wage income had come down. This was found to be in alignment with last AOs findings. 8% of treatment samples reported income from JTELP of tune of Average INR 4,979 per family.

3.9.3.2 NREGA

Availability of Job Cards

FIGURE 9 SAMPLES HAVING JOB CARDS
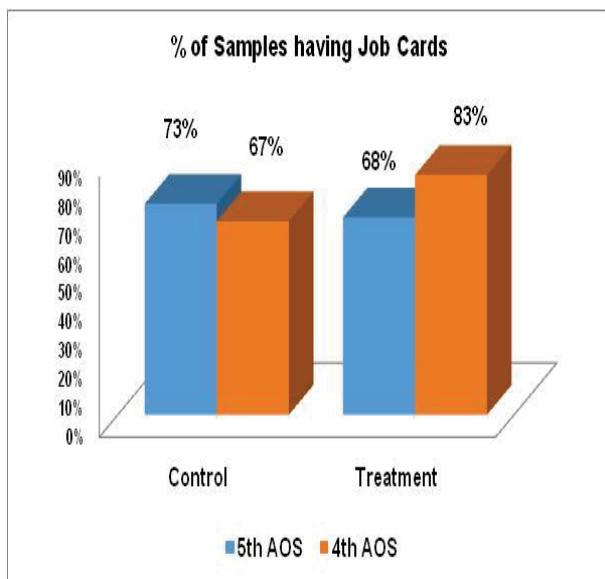
Comparison of data on ownership of job cards between both rounds of AOS revealed that while the control samples experienced increase in % of samples having job cards from 67% in last AOS to 73% in current ASO, treatment samples experienced a dip from 83% in last AOS to 68% in the current AOS. A greater level of efforts from the JTELP is required in this regard.

Work Done under NREGA in Last 12 months

TABLE 22 WORK DONE UNDER NREGA IN LAST 12 MONTHS

Survey Round	% of samples received work		No. of work days	
	Control	Treatment	Control	Treatment
5th AOS	27.88%	19.25%	37.565	30.097
4th AOS	35%	39%	25	26

A dip in % of samples received work under NREGA in last 12 months was experienced by both sets of samples, however the dip was more in case of treatment sample. In terms of no. of work days was more in this year in comparison to last year, especially in case of control farmers. Overall the situation of control farmers with respect to employment creation under NREGA was found to be better than the treatment farmers this year.

As part of AOS semi-structured interviews with project staff and FNGOs were conducted. In discussion with the project team and FNGOs, CONNECT team found that there was not much efforts in ensuring access of project beneficiaries to government programs. The staffs were found mostly busy with input support services provided under JTELP. A structured effort on mapping the current level of access of project beneficiaries to various Government programs would help the team in identifying the gaps and formulating plans for convergence accordingly.

Income from NREGA

TABLE 23 INCOME FROM NREGA

NREGA Work	Control	Treatment
NREGA work day during last 12 months(2019)	37.565	30.097
Income from NREGA wage work INR	6423.652	5146.548
% of samples	27.88%	19.25%

As number of days of work days and % of samples worked under NREGA was more in case of control samples, the average income from NREGA was more in case of control farmers than the treatment samples.

This is an intriguing indication that families in treatment group are engaged in crop diversification other means of livelihoods.

3.9.3.3 TOTAL WAGE INCOME

TABLE 24 TOTAL WAGE INCOME

| Indicator	Control	Treatment
Average Wage Income per Family in INR	11,074.29	7580.418
% of samples	32%	28%

As income form NREGA had a significant contribution to wage income, overall the total income from wage from all sources was more in case of control samples than the treatment samples.

3.9.4   NTFP

Access to Forest

FIGURE 10 ACCESS TO FOREST
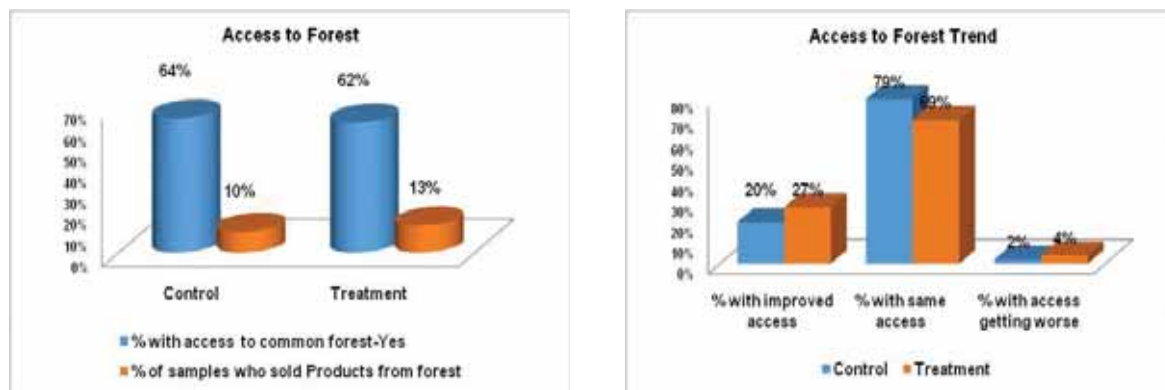
More or less same proportion of control and treatment samples reported to have access to forest in this round of AOS. In comparison to last AOS, the proportion had increased this year as in last AOS 57% of treatment and 37% of control samples had access to forest. The quantum of increase was found to be more in case of control samples.

Income from NTFP

TABLE 25 INCOME FROM NTFP

Income from NTFP	Control		Treatment	
	Income	No. of sample	Income	No. of sample
Gross sale income-Mahua	1,000.000	1	8,160.435	23

Even though few samples had reported to be engaged in collection of elephant foot yam, wood apple, jack fruit, custard apple, guava, lac, tasar etc, their numbers were minimal.

3.9.5   SALARY AND OTHERS

Income from salary and other sources	Control	% of Sample	Treatment	% of Samples
Salary	38,385	40%	41,734	31%
Income from other sources	37,772	71%	50,246	80%
Income from both salary and other sources	43,744	96%	55476.3***	96%
*** p<0.01, ** p<0.05, * p<0.1				

3.9.6 TOTAL HOUSHOLD INCOME

TABLE 26 HOUSEHOLD INCOME

Total household income	5th AOS		4th AOS	
	Control	Treatment	Control	Treatment
Household income (with salary and other sources)	50,149.78	67009.73***	23,274	59,680
Count of Samples	330	322		
*** p<0.01, ** p<0.05, * p<0.1				

In comparison to last AOS, average total household income per family was found to be increased in this round for both sets of samples. However, the increase was more in case of control samples. Higher level of wage income among the control samples than the treatment samples might have contributed to this.

3.10 MIGRATION

FIGURE 11 SAMPLES WITH OUTWARD MIGRATION
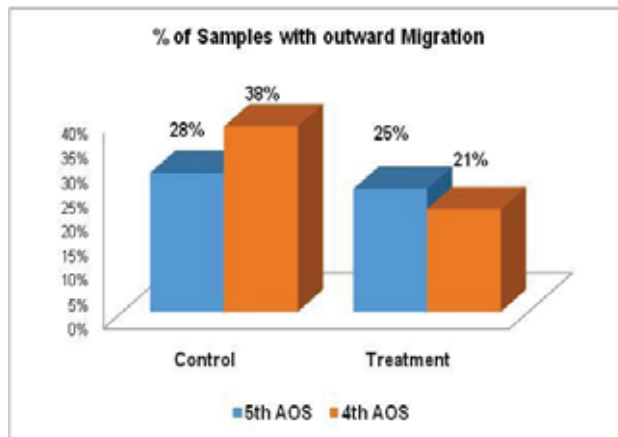
Overall the outward migration levels among the treatment sample were found to b slightly increased from 21% in 4th AOS to 25% in 5th AOS. On the contrary migration level among control samples was reduced from 38% in last AOs to 28% in this year. The analysis of perception on outward migration also indicated that more proportion of treatment samples felt that outward migration had been increased in last one year.

TABLE 27 PERCEPTION ON OUTWARD MIGRATION LEVEL

Outward migration trend	5th AOS		4th AOS	
	Control	Treatment	Control	Treatment
Increased	46.81%	65.43%		
Same	47.87%	25.40%		
Decreased	5.32%	6.17%	4%	10%

3.11 PROJECT SATISFACTION

TABLE 28 TREATMENT SAMPLES RECEIVED SERVICES

Indicator: Who provided services	% of Treatment
NGO Staff	5%
Other agency	1%
& line dept Staff	1%
Project Staff	83%
Staff & NGO staff	10%
% of samples reported to received services	64%

64% of treatment samples reported to have received services. Out of them, 83% reported that they had received services from JTELP. This indicated a scope for improvement in outreach and servicing.

Assessment of Service Delivery of Project

Overall, the treatment samples who had received services were found to be satisfied with the service delivery of project as only 1% reported the service delivery as poor. 53% of treatment samples reported the services delivery of project as average indicated scope for improvement for the project as a while.

FIGURE 12 ASSESSMENT OF SERVICE DELIVERY OF PROJECT SERVICES
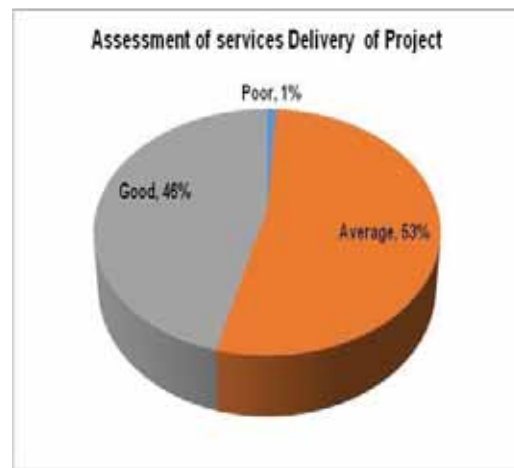
Assessment of Services Delivery of FNGO

Treatment samples who had received services were found to be quite satisfied with service delivery of FNGO as none of the sample rated the service delivery of FNGO as poor. 70% of samples reported the service delivery of FNGO as good. Close and regular contacts of FNGOs with the community had contributed to the high level of satisfaction with the service delivery of FNGO.

FIGURE 13 ASSESSMENT OF SERVICE DELIVERY OF FNGO

4 SNAPSHOT OF YEAR WISE OUTCOME INDICATORS

Values in %

SI No	Indicator	AOS 2015		AOS 2016		AOS 2017		AOS 2018		AOS 2019	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
1	**Household indicators**										
	Male headed HH	92	91	86	84	79	76	88	86	88	87
	Female headed HH	8	9	14	16	21	24	12	14	12	13
	HH having income < 1700	53	33	31	39	16	35	18	47	45	1
	HH having income 1700-5000	45	46	66	60	58	58	55	47	14	9
	HH having income 5001-9000	2	18	2	1	25	7	21	5	10	14
	HH having income > 9000	0	3	1	0	1	0	6	0	31	26
2	**Wage Employment Generation**										
	Increase in wage income (HH)			44	1	91	8	91	4	32	28
	Increase in wage income (Female)			29	0	85	5	85	0.5		
3	**Source of Income**										
	Agriculture as main source	54	55	89	80	89	86	93	89	94	90
	Daily wage as main source	34	29	4	6	6	11	4	7	1	4
	Multiple source of Income			59	47	83	66	98	94	71	82
4	**Land Tenure**										
	HH having cultivation land	74	80	86	77	92	90	97	96	99	94
	Landless household	26	20	14	23	8	10	3	4	1	6
5	**Crop Production**										
	Access to irrigation			54	38	71	34	84	45	65	79
	Paddy as major crop			75	67	89	77	99	95	97	93
	Excess sellable production of crop	25	20	33	28	52	22	64	35	29	20

Values in %

Key outcome indicator comparison

Sl No	Indicator	AOS 2015		AOS 2016		AOS 2017		AOS 2018		AOS 2019	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control
	Increase in Income from Crops			18	9	54	6	52	3	59	55
6	**Livestock Production**										
	HH having own livestock	78	80	77	66	80	66	93	77	90	83
	Increase in income from livestock			4	0	37	4	46	6	43	38
7	**Access to Forest**										
	HH having access to forest			56	49	35	19	57	37	32	49
8	**Access to financial services**										
	Access to Bank a/c			79	81	89	80	98	85	95	92
	Access to loan (Bank/SHG)			26	12	32	21	45	26	8	12
9	**Food security**										
	HH having 12 months of food security	65	72	68	74	77	71	88	66	83	76
10	**New asset**										
	Purchase of new asset			15	8	29	15	48	25	98	99
11	**Migration**										
	Migrated at least once in a year for livelihood			16	17	20	22	21	38	25	28

5 RECOMMENDATIONS

- **Strengthening of Community institutions**
  - o **SHGs:** Analysis of savings and credit access from SHGs by treatment farmers showed that SHGs were not been fully utilized for accessing financial services. Hence, a concentrated focus is required for strengthening SHGs. The overall status of access to credit was found to be very low. Hence, motivational training, exposure visits, etc. coupled with conducting livelihood planning exercise at SHG level is recommended which would boost the need to invest on income generation activities.
  - o **Gram Sabha PEC:** Training and orientation of Gram Sabha PEC members is needed as currently they lack engagement as evident from conduct of KIIS. It was found that the PEC members were even unaware of the amount they had in the bank account. Also the PEC meetings were found to be irregular.
  - o **Youth Groups (YG):** From YG, only 2-3 boys and girls are being benefited with very negligible income. There is a need to rethink to take some more concrete strategic decisions to involve more youths and provide the platform to fetch more income. Some other activities can be added - like high value agriculture crop, support from YG to farmers for backward and forward linkages.
- **Enhancing Delivery and Coverage of Training:** As proportion of treatment samples received training and services from project were found to be low, intensive training, capacity building programs are recommended to be conducted. Intensive training and handholding of FNGOs, cadres and community should be undertaken.
- **Enhancement of Crop Productivity Levels:** Even though increase in productivity levels was experienced, the current productivity levels are yet to touch the optimum levels. Provision of technical assistance through training and handholding support is a felt need and JTDS in assistance from TSA PDS is promoting "Krishak Mitras" to provide training and hand holding support to the beneficiaries.
- **Reduction in Livestock Mortality:** Though JTELP had supported with livestock to project beneficiaries, in absence of proper veterinary care in initial stage, the beneficiaries had to experience large mortality which resulted in low returns from livestock. Hence, mass vaccinations, adoption of standard Package of practices coupled with veterinary services are recommended for ensuring to build livestock production as a sustainable livelihood option.
- **Involvement of block level FNGOs team:** Block level team of FNGOs should be involved in annual planning meeting.
- **Strengthening access to Government schemes and programs:** Poor coverage under MGNREGA was found among the treatment samples. A greater level of efforts is required to strengthen this. SHGs platforms can be utilized for ensuring all members to have job cards and they demand for jobs.

ANNEXURE- 1 SURVEY QUESTIONNAIRE

Jharkhand Tribal Development Society
Jharkhand Tribal Empowerment and livelihood Project (JTELP)
5thAnnual Outcome Survey-2020

Informed Consent

Namaskar/Juhar. My name is _____. We are conducting a survey for the JTELP. The survey is about your engagement in agriculture, employment, livelihoods and income of your family over the past year. **I would like to ask you about your agricultural production, consumption, income from selling surplus products and (Not to be used in control villages) your experience of JTELP's intervention in your village. This information will help JTELP to understand what went well, plan and deliver a better programme in their target community.**

Your response during this interview will be kept strictly confidential and will be used for our study purpose. Your name will not be shared with anyone else and your answers will be combined with answers from many other people so that no one will know that the answers given to me today belong to you. Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your inputs are important for improving the project intervention in your and other communities. At this time, do you want to ask me anything about the survey?

Answer any questions that the respondent may have.

May I begin the interview now?

"The enumerator has read the consent form completely and I (respondent) voluntarily agreed to participate in the study".

Name of the Interviewer:
Interviewer's Signature: _____

RESPONDENT AGREESTO BE INTERVIEWED………………………...

Start the interview

A. General Demographic Information

District Name& Code	
Block Name& Code	
Gram Panchayat Name& Code	
Village Name& Code	
Tola/Hamlet (Code if any)	
Date of interview	___/_____/2020

B. Household Identification

Sl No	Questions	Response codes
1.	Name of respondent	
2.	Gender of the respondent	1-Male 2-Female
3.	Age of the respondent	Record in completed years
4.	Education level of Respondent	1-No Schooling 2-Primary school 3-Middle school 4-High school 5-Intermediate (12th class) 6-Bacheloer and above
5.	Phone number	
6.	Name of the HH head	
7.	Gender of the HH head	1-Male 2-Female
8.	Caste of the HH head	1-ST 2-SC 3-OBC 4-General 5-ST (PVTG) 99-Other
9.	How many members are there in your family	1-0-5 years of age (Record number) 2-More than 5 years of age (Record number)
10.	Adhaar no of HH head	
11.	Voter ID no of HH head	

C. **Occupation of household**

12.	What is your household's main source of income? (Please select one option**)**	1-Own farming 2-Livestock production 3-Fishing/aquaculture 4-Farm labour 5-Other daily labour 6-Skilled labour 7-Salary/regular job 8-Pension 9-Petty trade/small shop 10-Handicrafts/weaving 11-Own enterprise 12-Non-timber forest products(NTFP) 13-Remittance 99-Others
13.	What is your household's secondary source of income? (Please select one option**)**	1-Own farming 2-Livestock production 3-Fishing/aquaculture 4-Farm labour 5-Other daily labour 6-Skilled labour 7-Salary/regular job 8-Pension 9-Petty trade/small shop 10-Handicrafts/weaving 11-Own enterprise 12-Non-timber forest products(NTFP) 13-Remittance 99-Others

D. **Group membership and participation**

14.	To what groups do members of your household belong? [Multiple response possible]	1- SHG (developed by JTELP) 2- SHG (JSLPS or any other Organization) 3- Youth Group (JTELP) 4- Youth Group (NYK or any other Organization) 5- Producer/farmer group 6- Federation / producer company 7- Marketing group /

		cooperative (e.g. milk collection centre) 8- NRM group 9- Livestock Cluster (Pig/Goat/Poultry) 10- Crop/Vegetable Cultivation 11- Nutrition Garden Cluster 12- None - do not belong to any of above group
	Which of the following project activities has you or anyone from your household participated in over the last 12 months	
15.	Financial services- Credit, savings and insurance. (SHG/YG)	1-Yes 2-No
16.	Crop and horticultural production - Training, demonstration, input support, new technology, marketing and irrigation	1-Yes 2-No
17.	Livestock production- Training, demonstration, input support, new technology, marketing, breeding, health care, housing and investment.	1-Yes 2-No
18.	Non-timber forest products - Management of natural resource, planting and marketing.	1-Yes 2-No
19.	Non-farm enterprise - Training, investment, marketing and technology.	1-Yes 2-No
20.	Aquaculture/Fish farming	1-Yes 2-No
21.	Natural resource management - Natural resource planning, tree planting, water supply and soil and water conservation.	1-Yes 2-No
22.	Land rights / - Land redistribution and ownership titles	1-Yes 2-No
23.	Women Empowerment :- Training, Exposure visit, Marketing, Debt redemption, Drudgery reduction, Micro Livelihood Plan, Ultrapoor Support, Social Enterprises Development etc	1-Yes 2-No
24.	Has your household received any types of input support from the project?	1-Financial input 2-Input support for agriculture 3-Input support for livestock 4- Input support for fish farming 5- No support

E. Financial services

25.	Do you have a bank account?					1-Yes 2-No
26.	Do you now have any savings?					1-Yes 2-No(Skip to Q.28)
27.	If yes, then ask where do you save? (Multiple option possible)				1-Bank	Amount (in Rs)
					2-SHG or other type of group	Amount (in Rs)
					3-Post office	Amount (in Rs)
					4-Other agency	Amount (in Rs)
					5-Cash	Amount (in Rs)
28.	In the last 12 months, did you take any loans?					1-Yes 2-No(Skip to Q.29)
	Loan					

	Source	Loan amount	Rate of interest **Record 98-Don't Know if the respondent don't know about the interest rate**	What for the borrowed money required/used? 1-Income generating activities 2-Farming 3-Other investment 4-House & property 5-Health expenses 6- For Education 7-Weddings & social events 8-Other consumption 9-Repayment of other loan 99-Other	<u>Do you have any other old loan</u>? If yes, Record outstanding amount in Rs. as of 31st Dec 2019 (Note-verify with loan documents if available)	Ask purpose of the old loan? 1-Income generating activities 2-Farming 3-Other investment 4-House & property 5-Health expenses 6- For Education 7-Weddings & social events 8-Other consumption 9- Repayment of other

						loans 99-Other
	Bank					
	SHG or other type of group					
	Post office					
	Other agency					
	Cash					
	Money lender					
	Other (specify					

	Insurance	
29.	Do you now have any insurance policies?	1-Yes 2-No(Skip to Q.31)
30.	What type of policies does your household have?	1-Life 2-Savings linked life 3-Accident 4-Property / house 5-Health 6-Livestock 99-Other

F. Food security

31.	Did your household suffer from any shortage of food during the last 12 months?	1-Yes 2-No(Skip to Q.34)
32.	Which is / are the months you experienced food shortage? Multiple response possible Please ask **number of days** for the responded months.	1-January 2-February 3-March 4-April 5-May 6-June 7-July 8-August 9-September 10-October 11-November

		12-December
33.	How has the overall availability of food changed in the last 12 months?	1-Improved 2-Same 3-Got worse
34.	Do you have rationa/PDScard ?	1-Yes, BPL 2-Yes, NFSA 3-Antodaya 4-Annapurna 5-No card 99-Others
35.	Do you receive/get food ration from the Government?	1-Yes 2-No(Skip to Q.39)
36.	If Yes, what is the quantity per month?	1-Rice (in Kg) 2-Pulses (in Kg) 3-Oil (in Ltr/KG) 4-Kerosene (in Ltr/KG) 99-Other(specify)
37.	Do you receive / get the rice quantity every month?	1-Yes(Skip to Q.39) 2-No
38.	If No, do you know the reason why you do not get your allotted quota?	_____(give reason)
39.	How has the quality and type of food consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse
40.	How has the quantity of vegetables consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse
41.	How has the frequency of pulses consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse
42.	How has the frequency of fruits consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse
43.	How has the frequency of milk consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse
44.	How has the frequency of eggs consumed by your household changed in the last 12 months?	1-Improved 2-Same 3-Got worse

G. Housing and Asset

45.	What type of house do you have?	1-Traditional 2-Kuchha 3-Semi-Pucca 4-Pucca 99-Other(Specify)
46.	Has your house been expanded or improved in the last 12 months?	1-Yes 2-No
47.	Has your water supply and/or sanitation been improved in the last 12 months?	1-Yes 2-No
48.	Do you bought any new asset in the last year	1-Bicycle 2-Motor cycle/Scooter 3-TV 4-Jwellery 5-Bed 6-Electronics (Freeze, Cooler, AC) 99-Other(specify)
49.	Does this household own any agricultural land (land used for any type of cultivation)?	1-Yes 2-No(Skip to Q. 52)
50.	How much agricultural land does your household own?	Record in Acre Ac_____/____
51.	How much land (including agricultural land) does your household leased in for farming?	Record in Acre Ac_____/____

H. Training and capacity building
[What training, study tours & workshop have members of your household received or participated in?]

52.	A. Type of training	i. Number of training courses / events*		(Ask only if the respondent/member of the family has received the training) ii. How well the training was delivered?	(Ask only if the respondent/member of the family has received the training) iii. Was the training and its content useful?	(Ask only if the respondent/member of the family has received the training) iv. Have you adopted any learning from the training?
		In last 12 mon		1-Poor 2-Average 3-Good	1-Yes 2-No	1-Yes (Specify) 2-No

		ths				
	A.SHG management,					
	B. Crop & horticultural production (Agriculture/Horticulture/Nutrition garden/Vegetable cluster/SRI)					
	C. Livestock / fisheries (Pig/Goat/Poultry)					
	D. Enterprise development, marketing					
	E. Natural resource management (Land and Water work planning/Lac/Tasar)					
	F. Social, empowerment, health					
	G. Other (specify)					

*Includes tours and exposure visits

I. Knowledge and Use of new technology

	New technology	i.Do you know about the technology? 1-Yes 2-No—Go to next	ii. Have you tried this technology? 1-Yes 2-No—skip to next	iii. Do you think it useful? 1-Yes 2-No 98-Don't know	iv. Have you adopted/continue to use it? 1-Yes 2-No 98-Don't know
53.	DSR/Line Plantation of Paddy				
54.	Improved Vegetable Cultivation				
55.	Improved Vegetable				

	Cultivation – Barbatti beans Cultivation					
56.	Improved Mango Plantation					
57.	Improved Housing for Livestock					

J. Knowledge and Use of irrigation

58.	Have you used pond/shallow well water or any source for irrigation? 1-Yes 2-No (Skip to Q 59)	When do you use irrigation water?	How many days you have used water from Pond/ shallow well?	area of land irrigated In acre?	Have you used a pumpset for this? 1-Yes 2-No	If yes, then who provided you the pumpset? 1-Supplied by the project 2-Owned 99-Other(specify)	How many days you use pump set r? No of days
		A Khariff					
		B. Rabi					
		C. Grama(summer)					
		D. Other					

K. Common Forest, access to Non Timber Forest Produces and Orchard

59.	Do you have common forest (khudkatti) in your village?	1-Yes 2-No(Skip to Q63)
60.	Do you have access to the forest?	1-Yes 2-No

61.	What is the area of the forest? (in Acre)	(in Acre)
62.	How old is the forest? (In years)	(In years)
63.	Does your household have access to or use public or community forest?	1-Yes 2-No (Skip to Q.66)
64.	Has access to forest resources changed?	1-Improved 2-Same 3-Situatin worsen
65.	Has production/off take from forest resources changed?	1-Improved 2-Same 3-Situatin worsen
66.	What are the produces you collect from the forest? (more than one response possible)	1-Fuel wood 2-Lac rearing 3-Tasar cocoon 4-Collection of NTFP like tamarind, Mahua, Kendu leaves, etc. 99-Other (specify)
67.	Are products collected from forest sold out?	1-Yes 2-No

68.	Did you/your household receive any sapling from the project?	1-Yes 2-No (Skip to Q.74)	
69.	Mango	**No received** ***(if 0 then ask next sapling)***	**No of sapling survived**
70.	Guava		
71.	Papaya		
72.	Timber & Shrubs		
73.	Other (specify)		

L. Marketing channels

74.	Are you using a new way of marketing your production? (such as collective marketing, linkage to an agribusiness, contract production, processing for value addition)		1-Yes 2-No(Skip to Q. to module M/Q.81)	
	If yes, then ask the following questions		This year (2019)	Previous year (2018)
75.	Product 1 (record name)	Quantity (KG)	Value (Rs/Kg)	Value (Rs./KG)
76.	Product 2 (record name)			
77.	Product 3 (record name)			
78.	Product 4 (record name)			
79.	Product 5 (record name)			
80.	Do you feel that you get a better price as a result of using the new marketing channel as compared to 2018? (Probe- what makes the respondent saying that)		1-Yes 2-No	

M. Livelihood: Crop, vegetable, Livestock, Fish farm and NTFPs

	Livelihood sources (If the family doesn't have this source then enter 88-NA and skip to next)	Total area cultivated (Record in Acre)	Total production (Record in quintals)	Post-harvest crop loss if any (Record in quintals)	Consumed at home/give away (Record in quintals)	Sold away (Record in quintals)	At what price the product was sold? Per Quintals (Record in Rs)	Labour cost-Family (in Rs) [No of days X Rs. 200]	Labour cost-hired [No of days X Rs. 200]	Cost of inputs (seed, fertilizer, pesticide, irrigation) (in Rs)	In the last year how has production changed in comparison to 2018? (see ed, fertilize r, pesticide, irrigation) 1-Increased 2-Same 3-Decrease
81.	Paddy										
82.	Maize										
83.	Oil seed										
84.	Pulses										

85.	Vegeta bles								
86.	Barbati								
87.	Elepha nt foot yam								
88.	Mango								
89.	Wood apple								
90.	Jack fruit								
91.	Custar d apple								
92.	Guava								
93.	Papay a								
94.	Lac								
95.	Tassar Cocoo n								
96.	Mahua								

97.	Tamarind						
98.	Kendu leaves						
99.	Sal leaves						
100.	Fish farming						

		If yes Quantity (Quintal)	If yes Value (Rs)
101.	Is there any remaining fish in pond? 1-Yes, 2-No		

Livestock

		1-Yes 2-No (Skip to Q 104)	ii. How many animals does your household had (in 2018)?	iii. How many animals/birds you received from the project (2019)?	iv. Died/lost in last year (In numbers)	v. How many you have now? (Record numbers) Note: include offspring in the total)	vi. Amount earned by selling eggs/animals received from the project (Record in Rupee)	vii. During last year how has production of livestock products in comparison to 2018 (eggs, animals for sale,
102.	Does your household keep any livestock?							
103.	i.Record in numbers							

			etc.) changed? 1-Increased 2-Same 3-Decreased
	A. Pig		
	B. Goat		
	C. Poultry		
	D. Other animals (specify)		
	E. Other animals (specify)		

Household Annual Income from All Sources (in the last 12 months)

	Sources of Income	Amount (Rs)	Remarks
104.	Salary		Tobe asked if any
105.	Wage labour (including NREGA)		To be taken from MGNREA section
106.	Field crops		To be taken from the Livelihood table
107.	Orchards		
108.	Forest NTFPs		
109.	Poultry rearing		
110.	Goat rearing		

111.	Pig rearing		
112.	Fishery		
113.	Others (specify)		
	Total income		

Note: Income to be auto calculated using information from Livelihood table.

N. Migration

114.	Whether do you or any member of your HH go to other places for income/livelihood?	1-Yes 2-No(Skip to Q.116)
115.	Is there any change in period/duration of migration of members from your family?	1-Increased 2-Same 3-Decreased

O. Health

116.	Does your village has an Aanganwadi Centre?	1-Yes 2-No
117.	Does the Aaganwadi worker/helper serve your family?	No of adult members from the HH
118.	What does she serve your family with?	1-Takes care of HH children in the age group of Pre-school student 2-Facilitates vaccination of children 3- Facilitates vaccination and check of pregnants 4-Provide THR 5-Counselling at critical times for pregnant and children 99-Other(specify)
119.	How many children of age 0-5 years are there in the household? Please load the response from Q.9	
120.	Is the child (0-5 years of age) in your household received required vaccination? Note: probe for all children mentioned above questions (Check the MCH card for verification)	1-Yes, all children vaccinated as required 2-Yes, some are completely vaccinated and some are partly vaccinated. 3-Yes, all children are partly vaccinated 4-No
121.	Where did you vaccinate your child?	1-AWC 2-SC 3-Home 4-Hospital (Govt) 5-Private/quack 99-Other(specify)

P. Employment generation

12	How do you rate employment generation for all members of your household due to the engagement with the project (since beginning of JTELP)?	1-Significantly gone up 2-Moderately gone up 3- More or less same 4-Moderately gone down 5-Significantly gone down	
12	How do you rate employment generation for all the female members of your household due to the engagement with the project (since beginning of JTELP)?	1-Significantly gone up 2-Moderately gone up 3- More or less same 4-Moderately gone down 5-Significantly gone down	
12	Total amount received from wage payment from JTELP activities	_____ In last 12 months (In Rs)	For all HH members_____
			For only female members of HH_____
	Total amount received from wage payment from JTELP activities	_____ Since the beginning of the project (In Rs)	For all HH members_____
			For only female members of HH_____

Q. MGNREGA

125.	Does your household have a Job Card?	1-Yes 2-No (Skip to Q.132)
126.	If Yes, how many adults are listed in the Job Card?	No of adult members from the HH (Record in number)
127.	During the last 12 months, have you received any work under MGNREGA	1-Yes 2-No(Skip to Q.132)
128.	If Yes, how many days of work?	__ No of days
129.	Do you feel that NREGA has brought significant benefits to your household? (Please ask for last 12 months)	1-Yes (Explain the benefits) 2-No(Skip to Q.132)
130.	During the last 12 months, What did you do with your NREGA wages?	1-Yes for buying seeds/ fertilisers 2- Yes, for tools/agricultural equipment 3-Hiring of agriculture or other farm related items 4-Yes, for Livestock or medicines for livestock 5-Yes, for bought medicines for family members 6-Saved 7-Used for alcohol

		99-Other (Specify)
131.	Have you benefited from NREGA to create any permanent asset for your household such as pond or water harvesting structure or plantations?	1-Yes 2-No
132.	Has your village benefited from NREGA to create any permanent asset such as road / pond / or any other assets?	1-Yes 2-No
133.	Has you or any member of your family did any wage work other than MGNREGA or wage activity supported by the project?	1-Yes 2-No Skip to Q135
134.	If yes, for how many days, you or member of your family worked in last one year? (wage @Rs.200/- per day)	Record number of days

R. **Use of Service Providers and Rating**

135.	What kind of support did you or someone in your family get in the last 12 months from the various service providers? (Multiple response possible)	1-Access to financial services (for SHG/YG) 2- Crop or horticultural inputs and production support 3- Livestock healthcare and inputs 4- Marketing of farm and non-farm products 5- Processing/Grading/Packaging/SME 6-Natural resource management (Land and water related work) 7-Social empowerment and health 99- Other (please specify)
136.	Who provided you these services? (Multiple option possible)	1-Project Staff (JTDS-DPMU) 2-NGO staff 3-Govt. Line department 99-Other agencies (specify)
137.	How satisfied are you with Project staff? (ask only if answer to Q 136=1)	1-Poor 2-Average 3-Good
138.	How satisfied are you with NGO staff? (ask only if answer to Q 136=2)	1-Poor 2-Average 3-Good
139.	How satisfied are you with Line department?	1-Poor

	(ask if answer to Q 136=3)	2-Average 3-Good

S. Contact and satisfaction with project and involvement with other project over last 12 months

140.	Are getting benefit from any other project/ Govt. sponsored scheme **(other than JTELP)**	1-Yes 2-No
	If yes, Pls specify- (The no. of schemes mentioned may more than one and need to be listed)	List out the name of the project
141.	Have you ever stopped using the services of project?	1-Yes 2-No (Skip to Q.143)
142.	If yes state which services did you stop using (Probe for services that the household were using earlier but have since stopped) - may be more than one service record all	1-Training and demonstration 2-Input support 3-Market support 99-Other (specify)
143.	How often do you have contact with project staff over the last 12 months?	1-Frequently 2-Occasionally 3-Rarely
144.	How satisfied are you with the project?	1-Very satisfied 2-Moderately satisfied 3-Not at all satisfied

-Thank you-

ANNEXURE-2 DATA ANALYSIS TABLES

Gender of Respondent		
Respondent type	Control	Treatment
Male	63.03%	53.42%
Female	36.97%	46.58%

Respondent- education		
No schooling	42.12%	37.58%
Primary school	18.18%	18.94%
Middle school	18.18%	17.39%
High school	12.12%	15.22%
Intermediate-12th class	4.55%	8.07%
Bachelor and above	4.85%	2.80%

Gender of Household head		
Male	86.67%	88.20%
Female	13.33%	11.80%

Social category		
ST	81.21%	90.99%
SC	4.24%	1.55%
OBC	11.82%	4.97%
General	0.91%	2.48%
PVTG	1.82%	-
Count of Samples	330	322

	Control	Treatment
Respondent age	41.85	40.53
Child 0-5 year of age	0.80	0.74
Household member (5 years plus)	5.09	5.32
Count of Samples	330	322

Primary occupation	Control	Treatment
Own farming	89.7	94.1
Livestock production	0.3	0.31
Fishing/aquaculture	0.3	-
Farm labour	2.73	0.93
Other daily labour	3.64	1.24
Skilled labour	0.91	1.24
Salary/regular job	0.91	0.62
Petty trade/small shop	0.91	0.93
Handicrafts/weaving	0.61	-
Own enterprise	-	0.31
Remittance	-	0.31
Count of Samples	330	322

Secondary Occupation	Control	Treatment
Own farming	4.06	3.06
Livestock production	5.17	13.1
Fishing/aquaculture	0.74	0.87
Farm labour	11.44	8.3
Other daily labour	67.9	55.02
Skilled labour	3.32	3.06
Salary/regular job	1.48	3.06
Pension	1.11	3.49
Petty trade/small shop	2.95	6.99
Handicrafts/weaving	1.11	0.44
Remittance	0.37	
Own enterprise		1.31
Non-timber forest products(NTFP)		0.87
Others	0.37	0.44
Count of Samples	271	229

Group membership	Control	Treatment
Not a member of SHG-JTELP	87.88%	53.73%
Member of SHG-JTELP	0.00%	46.28%***
Not a member of SHG-JSLPS	55.45%	46.27%
Member of SHG-JSLPS	56.36%	53.73%
Not a member of YG-JTELP	99.09%	91.93%
Member of YG-JTELP	0.91%	8.08%**
Not a member of YG Non-JTELP	99.09%	98.14%
Member of YG Non-JTELP	0.91%	1.86%
Not a member of producer group	99.39%	99.07%
Member of producer group	0.61%	0.93%
Not a member of livestock group	99.70%	96.58%
Member of livestock group	0.30%	3.42%***
Not a member of vegetable producing group	99.39%	98.76%
Member of vegetable producing group	0.61%	1.24%
Not a member of nutrition group	99.70%	99.69%
Member of nutrition group	0.30%	0.31%
Not a member of any group	60.30%	0.8540373
Member of any group	39.70%	0.1459627
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Member of a SHG	56.36%	82.61%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Access to programme activity	Control	Treatment
Financial service	26.36%	38.51%***
Agriculture	12.73%	36.34%***
Livestock	7.58%	26.71%***
NTFP	2.12%	7.45%***
Non-farm enterprises	2.73%	8.07%***
Fish farming	3.94%	4.35%
Natural Resource Management	2.73%	4.66%
Land right	2.73%	3.11%
Women empowerment	3.94%	19.25%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Financial Inclusion	Control	Treatment
Bank account	92.12%	95.34%*
Savings	73.33%	83.54%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Count	Control	Count	Treatment
Saving at bank	211	10470	252	9647
Savings with SHG	98	2148	157	3452*
Savings with PO	2	46800	3	33233
Savings with other agency	0		5	7560
Savings in cash	144	951	174	1220
*** p<0.01, ** p<0.05, * p<0.1				

Indicator-Loan	Count	Control	Count	Treatment
Loan from bank	9	24878	11	19091
Old loan from bank	2	49	2	17500
Loan from SHG	30	13684	13	5715*
Loan from other agency	2	24783	0	
Cash loan	3	11333	1	3000
Loan from money lender	2	10400	2	11500
*** p<0.01, ** p<0.05, * p<0.1				

Purpose of loan from Bank	Control	Treatment
Income generating activities	11.11%	
Farming	55.56%	80.00%
Other investment		10.00%
House and property	11.11%	10.00%
Health	11.11%	
Other	11.11%	
Count	9	10

Purpose of loan from SHG	Control	Treatment
Income generating activities	3.33%	8.33%
Farming	13.33%	
House and property	10.00%	50.00%
Health expenditure	16.67%	
For education	10.00%	50.00%
Weddings and social events	20.00%	8.33%
Other Consumption	3.33%	
Other	23.33%	
Count	30	12

Indicator	Control	Treatment
Insurance	19.70%	19.88%
Count	330	322

Indicator	Control	Treatment
Experienced food shortage	22.73%	17.08%*
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator- How has the overall availability of food during last 12 months	Control	Treatment
Improved	21.33%	52.73%***
Same	66.67%	40%***
Got worse	12.00%	7.27%***
Count	75	55
*** p<0.01, ** p<0.05, * p<0.1		

Indicator- Social security	Control	Treatment
BPL	65.45%	72.98%
NFSA	0.30%	0.62%
Antodaya	17.58%	14.91%
Annapurna	5.45%	3.73%
No card	8.18%	4.66%
Others	3.03%	3.11%
Count	330	322

Indicator- Receive food grain	Control	Treatment
Yes	90.61%	92.24%
No	9.39%	7.76%
Count	330	322

Indicator- Product received under PDS	n	Mean	n	Mean
Rice	297	25.99	294	25.48
Pulse	113	0.07	69	0.00
Oil	112	0.00	68	0.12
Kerosene	278	1.73	276	2.16
Other items	137	2.80	194	4.05

Indicator- quality and type of food consumed by your household changed in the last 12 months	Control	Treatment
Improved	51.21%	56.21%
Same	45.15%	40.37%
Got worse	3.64%	3.42%
Count	330	322

Indicator- quantity of vegetables consumed by your household changed in the last 12 months	Control	Treatment
Improved	36.67%	50.93%
Same	56.97%	44.72%
Got worse	6.36%	4.35%
Count	330	322

Indicator- frequency of pulses consumed by your household changed in the last 12 months	Control	Treatment
Improved	23.64%	41.30%
Same	66.36%	49.69%
Got worse	10.00%	9.01%
Count	330	322

Indicator- frequency of fruits consumed by your household changed in the last 12 months	Control	Treatment
Improved	5.45%	12.42%
Same	73.64%	68.01%
Got worse	20.91%	19.57%
Count	330	322

Indicator-frequency of milk consumed by your household changed in the last 12 months	Control	Treatment
Improved	3.64%	8.07%
Same	67.27%	62.42%
Got worse	29.09%	29.50%
Count	330	322

Indicator- frequency of eggs consumed by your household changed in the last 12 months	Control	Treatment
Improved	6.67%	15.84%
Same	76.67%	65.84%
Got worse	16.67%	18.32%
Count	330	322

Indicator-House type	Control	Treatment
Traditional	6.36%	8.39%
Kuchha	76.06%	73.60%
Semi-Pucca	9.70%	10.25%
Pucca	7.27%	7.45%
Other	0.61%	0.31%
Count	330	322

Indicator-House expansion	Control	Treatment
House expansion happened in last 12 months	22.42%	31.99%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator-Sanitation	Control	Treatment
Water supply and sanitation improved in last 12 months	30.00%	47.83%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator-Household asset	Control	Treatment
Bed	1.84%	1.58%
Bicycle	4.29%	6.01%
Electronics (includes freeze, cooler, AC, Mobile, etc)	91.10%	85.44%
Jwellery	0.31%	0.95%
Moter cycle	2.15%	5.06%
TV	0.31%	0.95%
Count	326	316

Indicator	Control	Treatment
Own agricultural land	3.003	2.939
Count	310	319

Indicator	Control	Treatment
Lease land for agriculture	0.902	1.494
Count	170	137

Indicator	Control	Treatment
Training- SHG management	15.45%	27.95%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment	Overall
Number of training-SHG management	9.000	6.130	7.170
Count	51	90	141

Indicator- How well the training was delivered	Control	Treatment
Poor	3.92%	2.22%
Average	13.73%	56.67%
Good	82.35%	41.11%
Count	51	90
Indicator-Was the training and content useful		
Yes	90.20%	80.00%
No	9.80%	20.00%
Count	51	90
Indicator-Adopted anything from the training		
Yes	60.78%	56.67%
No	39.22%	43.33%
Count	51	90

Indicator	Control	Treatment
Training- Crop & horticulture production	4.85%	36.02%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Number of training-Crop & horticulture production	6.25	2.79
Count	16	116

Indicator- How well the training was delivered	Control	Treatment
Poor	12.50%	1.72%
Average	18.75%	56.90%
Good	68.75%	41.38%
Count	16	116
Indicator-Was the traing and content useful		
Yes	87.50%	84.48%
No	12.50%	15.52%
Count	16	116
Indicator-Adopted any thing from the training		
Yes	81.25%	66.38%
No	18.75%	33.62%
Count	16	116

Indicator	Control	Treatment
Training- Livestock and fisheries	6.67%	20.19%**
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Number of training-Livestock and fisheries	2.77	2.43
Count	22	65

Indicator- How well the training was delivered	Control	Treatment
Poor	4.55%	4.62%
Average	36.36%	41.54%
Good	59.09%	53.85%
Count	22	65
Indicator-Was the training and content useful		
Yes	68.18%	75.38%
No	31.82%	24.62%
Count	16	65
Indicator-Adopted anything from the training		
Yes	72.73%	61.54%
No	27.27%	38.46%
Count	16	65

Indicator	Control	Treatment
Training- Enterprise development and management	0.91%	1.55%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Number of training-Enterprise development and management	1.33	2.60
Count	3	5

Indicator- How well the training was delivered	Control	Treatment
Poor	33.33%	0.00%
Average	33.33%	80.00%
Good	33.33%	20.00%
Count	3	5
Indicator-Was the training and content useful		
Yes	1.00%	60.00%
No	0.00%	40.00%
Count	3	5
Indicator-Adopted anything from the training		
Yes	33.33%	60.00%
No	66.67%	40.00%
Count	3	5

Indicator	Control	Treatment
Training- NRM	1.21%	4.35%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Number of training-Livestock and fisheries	7.25	5.07
Count	4	14

Indicator- How well the training was delivered	Control	Treatment
Poor	25.00%	14.29%
Average	25.00%	21.43%
Good	50.00%	64.29%
Count	4	14
Indicator-Was the training and content useful		
Yes	100.00%	85.71%
No		14.29%
Count	4	14
Indicator-Adopted anything from the training		
Yes	75.00%	64.29%
No	25.00%	35.71%
Count	4	14

Indicator	Control	Treatment
Training- Social Empowerment and Health	2.73%	11.49%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Number of training-Livestock and fisheries	3.00	4.95
Count	9	37

Indicator- How well the training was delivered	Control	Treatment
Poor	11.11%	2.70%
Average	44.44%	67.57%
Good	44.44%	29.73%
Count	9	37
Indicator-Was the training and content useful		
Yes	88.89%	83.78%
No	11.11%	16.22%
Count	9	37
Indicator-Adopted anything from the training		
Yes	33.33%	54.05%
No	66.67%	45.95%
Count	9	37

Indicator	Control	Treatment
Know DSR/Line plantation	30.30%	41.61%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Tried DSR/Line plantation	86.00%	92.54%*
Count	100	134
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Think DSR/Line plantation is useful	100.00%	100.00%
Adopted DSR/Line plantation	70.93%	80.65%***
Count	86	124
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Know Improved vegetable cultivation	31.21%	32.92%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Tried Improved vegetable cultivation	86.41%	93.4%*
Count	103	106
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Think Improved vegetable cultivation	100.00%	98.99%
Adopted Improved vegetable cultivation	65.17%	89.90%
Count	89	99
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Know Barbati cultivation	19.39%	16.77%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Tried Barbati cultivation	81.25%	90.74%***
Count	64	54
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Think Barbati cultivation	98.08%	93.08%
Count	52	49
Adopted Barbati cultivation	74.51%	95.65%
Count	51	46
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Know Improved mango plantation	1.52%	3.42%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment

Tried Improved mango plantation	80.00%	100.00%
Count	5	11
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Think Improved mango plantation	80.00%	100.00%
Count	4	11
Adopted Improved mango plantation	80.00%	100.00%
Count	5	11
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Know Improved housing for livestock	25.76%	22.05%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Tried Improved housing for livestock	95.29%	95.77%
Count	85	71
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Think Improved housing for livestock	100.00%	98.58%
Count	81	68
Adopted Improved housing for livestock	93.83%	88.06%
Count	81	68
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Used pond/shallow well for irrigation	36.36%	46.58%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Used pond/shallow well for irrigation-Kharif	79.17%	65.33%
Count	120	150
*** p<0.01, ** p<0.05, * p<0.1		

No of days used irrigation in Kharif season	9.295	13.041
Area irrigated in Kharif season	2.450	2.284
Count	95	98

Indicator	Control	Treatment
Used pump to lift water for irrigation-Kharif	90.53%	91.84%
Count	95	98
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Pump for irrigations supplied by JTELP-Kharif	1.16%	15.56%***

Count	86	90
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Used pond/shallow well for irrigation-Rabi	68.91%	81.21%**
Count	119	149
*** p<0.01, ** p<0.05, * p<0.1		

	Control	Treatment
No of days used irrigation in Rabi season	14.134	18.769
Area irrigated in Rabi season (in Acre)	2.655	3.602
Count	95	98
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Used pump to lift water for irrigation-Rabi	97.56%	89.92%
Count	82	119
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Pump for irrigation supplied by JTELP-Rabi	1.25%	15.89%***
Count	80	107
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Used pond/shallow well for irrigation-Garma	27.12%	34.46%
Count	119	148
*** p<0.01, ** p<0.05, * p<0.1		

	Control	Treatment
No of days used irrigation in Garma season	25.469	23.176
Area irrigated in Garma season (in Acre)	3.702	1.518
Count	32	51

Indicator	Control	Treatment
Used pump to lift water for irrigation-Garma	90.63%	90.20%
Count	32	51
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Pump for irrigation supplied by JTELP-Garma	0.00%	0.00%
Count	29	45
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Common forest in village	49.39%	32.30%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Common forest	93.87%	93.27%
Count	163	104
*** p<0.01, ** p<0.05, * p<0.1		

Area of common forest (average)	141.514	728.049
Year of common forest (average)	31.111	42.583
Count	162	103

Indicator	Control	Treatment
Access to common forest	64.24%	62.42%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		
Indicator	Control	Treatment
Improved	19.52%	27.41%
Same	78.57%	69.04%
Got worse	1.90%	3.55%
Count	210	197
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Products from forest are sold out	10.30%	13.04%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Received sapling from the project	1.52%	8.07%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Received sapling from the project- Mango	1.52%	4.04%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Number of sapling received-Mango	19.400	19.231
Number of sapling survived-Mango	13.400	8.462
Count	5	13

Indicator	Control	Treatment
Received sapling from the project- Guava	0.30%	4.04%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Number of sapling received-Guava	25.000	5.538
Number of sapling survived-Guava	20.000	1.154
Count	1	13

Received sapling from the project- Papaya	0.30%	5.28%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Number of sapling received-Papaya	3.000	2.647
Number of sapling survived-Papaya	0.000	1.000
Count	1	17

Indicator	Control	Treatment
Received sapling from the project- Timber	0.00%	0.62%
Count	330	322

Number of sapling received-Timber	.	2.000
Number of sapling survived-Timber	.	2.000
Count		2

Indicator	Control	n	Treatment	n	Overall	n
Average area of paddy cultivation in acre	2.341	306	2.147	313	2.243	619
Average paddy production Quintal	11.151	306	16.819***	313	14.017	619
Average productivity(Q/Acre)	8.964	306	10.536	313	9.759	619
Paddy surplus after consumption	9.628	90	16.675***	106	13.439	196
Sale rate per Quintal in INR	1,335.356	90	1,321.906	106	1,328.082	196
Income from paddy from surplus sale INR	12,741.289	90	22435.133***	106	17,983.878	196
Average labour day(family)	33.203	306	45.240***	313	39.289	619
Average labour day(outside)	17.203	306	25.540***	313	21.418	619
Average cost for paddy cultivation INR	10,081.046	306	14155.911***	313	12,141.519	619
Average income INR	-6,071.090	89	328.765***	106	-2,592.194	195
Average cost of paddy production INR	9,679.282	306	10,709.534	313	10,200.233	619
Value of paddy from one Acre INR	11,970.745	306	13,928.090	313	12,960.485	619
*** p<0.01, ** p<0.05, * p<0.1						

Indicator	Control	n	Treatment	n	Overall	n
Average area of maize cultivation (Acre)	0.300	102	0.445***	114	0.377	216
Maize production (quintal)	1.481	102	2.488*	114	2.013	216
Productivity (Q/Acre)	5.772	102	6.648	114	6.234	216
Maize surplus after consumption Q	0.535	89	1.915**	82	1.197	171
Average Sale price per Quintal in INR	414.045	89	637.974**	79	519.345	168
Income from Maize from surplus sale INR	679.593	86	2991.532**	77	1,771.736	163
Average labour day(family)	9.792	101	10.140	114	9.795	215
Average labour day(outside)	0.966	89	1.062	81	1.012	170
Average cost for Maize cultivation INR	2,695.341	88	2,953.413	80	2,818.232	168
Average net income INR	-135.170	88	1631.765*	81	711.704	169
Average gross value of maize INR	613.355	101	1587.438***	114	1,127.455	215
*** p<0.01, ** p<0.05, * p<0.1						

Indicator	Control	n	Treatment	n	Overall	n
Average area of oilseed cultivation acre	0.395	67	0.421	131	0.412	198
Oilseed production Q	0.713	67	1.087**	131	0.961	198
Productivity Q/Acre	2.840	67	3.131	131	3.032	198
Oilseed surplus after consumption Q	0.087	67	0.325**	131	0.244	198
Average sales price per Q, INR	230.000	50	984.615***	91	717.021	141
Income from Oilseed from surplus sale INR	247.755	49	1091.648**	91	796.286	140
Average labour day(family)	6.597	67	7.233	129	7.015	196
Average labour day(outside)	0.479	48	1.449	89	1.109	137
Average cost for Oilseed cultivation INR	1,468.319	47	2495.227***	88	2,137.711	135
Average net income INR	-1,345.891	46	-1,405.814	86	-1,384.932	132
Gross value from sale INR	164.090	67	1070.901***	131	764.051	198
*** p<0.01, ** p<0.05, * p<0.1						

Indicator	Control	n	Treatment	n	Overall	n
Average area of pulse cultivation (Acre)	0.389	72	0.559	112	0.492	184
Pulse production (Q)	0.829	70	1.192	112	1.037	182
Productivity(Q/Acre)	2.375	69	2.532	112	2.431	181
Pulse surplus after consumption Q	0.060	70	0.473***	112	0.312	182
Average sales price per Quintal in INR	588.333	58	1971.591***	88	1,410.811	146
Income from pulse from surplus sale INR	306.897	58	2455.862***	87	1,574.558	145
Average labour day(family)	5.712	73	7.518**	114	6.813	187
Average labour day(outside)	1.344	61	2.518	85	2.027	146
Average cost for pulse cultivation INR	2,030.649	57	3,171.747	83	2,679.592	140
Average net income INR	-1,671.764	55	-691.543	81	-1,083.058	136
Average value of pulse INR	487.476	70	2,350.872	112	1,615.630	182
*** p<0.01, ** p<0.05, * p<0.1						

Indicator: Vegetable	Control	n	Treatment	n	Overall	n
Average area of vegetable cultivation (Acre)	0.361	68	0.547	102	0.472	170
Production (Q)	4.865	68	9.427***	102	7.602	170
Productivity(Q/acre)	22.973	68	24.341**	102	23.793	170
Surplus after consumption(Q)	1.819	68	6.077	102	4.374	170
Income from surplus sale in INR	2,459.848	66	6,603.379	95	4,904.789	161
Average labour day(family)	13.074	68	12.422	102	12.682	170
Average labour day(outside)	1.492	61	4.344**	96	3.236	157
Average cost of cultivation INR	4,688.525	61	6,129.010	96	5,569.331	157
Average net income INR	-2,449.831	59	805.615	91	-474.860	150
*** p<0.01, ** p<0.05, * p<0.1						

Indicator: Barbati	Control	n	Treatment	n	Overall	n
Average area-Barbati cultivation(Acre)	0.497	6	0.373	24	0.398	30
Production (Q)	5.417	6	3.800	24	4.123	30
Productivity Q/Acre	13.333	6	27.172	24	24.405	30
Surplus after consumption Q	0.014	5	2.077	24	1.664	29
Average sales price per Quintal in INR	1,131.750	4	1,764.000	23	1,670.333	27
Income from surplus sale INR	50.300	3	4,762.886	22	4,197.376	25
Average labour day(family)	15.000	3	12.000	24	12.333	27
Average labour day(outside)	4.500	4	2.571	21	2.880	25
Average cost of cultivation INR	1,051.333	3	1,254.450	20	1,227.957	23
Average net income INR	-1,001.033	3	3,512.225	20	2,923.539	23
*** p<0.01, ** p<0.05, * p<0.1						

Indicator: Total income	Control	n	Treatment	n	Overall	n
Net income from Agriculture	-4,908.753	174	1682.474***	191	-1,459.645	365
Total income from Agriculture	7,764.455	180	19229.35***	190	13,651.830	370
*** p<0.01, ** p<0.05, * p<0.1						

Indicator: Mahua	Control	n	Treatment	n
Gross sale income-Mahua	1,000.000	1	8,160.435	23

Indicator	Control	Treatment
Household with remaining fish in pond	1.82%	4.35%
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Household with remaining fish in pond-Quantity in Quintals	3	12.363
Count	6	11
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Household with remaining fish in pond-Value in Rs	13086	36358.33
Count	5	12
*** p<0.01, ** p<0.05, * p<0.1		

Indicator	Control	Treatment
Livestock	83.03%	90.37%***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator: Number of livestock rearing	Control	n	Treatment	n
Pig	2.607	61	1.879	58
Goat	4.367	150	4.306	180
Poultry	13.396	164	7.130	192

Indicator: Income from livestock rearing	Control	n	Treatment	n
Pig	1,459.016	61	1,172.569	58
Goat	749.333	150	472.317	180
Poultry	127.134	164	250.667	192

Indicator: Income from salary	Control	n	Treatment	n
Salary	38,384.730	131	41,734.000	100
Income from other sources	37,771.790	234	50,246.300	257
Income from both salary and other sources	43,744.480	317	55476.3***	308
*** p<0.01, ** p<0.05, * p<0.1				

Indicator	Control	Treatment
Family goes out for work (migration)	28.48%	25.16%
Count	330	322

Indicator	Control	Treatment
Outward migration increased	46.81%	65.43%
Outward migration same	47.87%	25.40%
Outward migration decreased	5.32%	6.17%
Count	94	81

Indicator	Control	Treatment
Village has AWC	92.42%	91.98%
Count	330	322

Indicator: Child vaccination	Control	Treatment
AWC	60.37%	42.18%
Sub Centre	20.12%	27.21%
Home	17.07%	27.89%
Govt. Hospital	2.44%	2.72%
Count	164	147

Employment generation

Indicator: Employment generation since JTELP	Control	Treatment
Significantly gone up		8.70%
Moderately gone up		34.47%
More or less same	18.18%	44.41%
Moderately gone down		0.62%
Significantly gone down		1.24%
Don't Know	81.82%	10.56%
Count	330	332

Indicator: Employment generation since JTELP-Female	Control	Treatment
Significantly gone up		6.52%
Moderately gone up		27.02%
More or less same	17.58%	52.17%
Moderately gone down		1.86%
Significantly gone down	0.30%	1.55%
Don't Know	82.12%	10.87%
Count	330	332

Indicator: Employment generation since JTELP-Female	Control	Treatment
Total income from wage-JTELP		4979.214
count		28

Indicator	Control	Treatment
Household has a NREGA job card	73.03%	68.32%
count	330	322

Indicator:NREGA work day	Control	Treatment
NREGA work day	2.593	4.073
count	241	220

Indicator	Control	Treatment
NREGA work during last 12 months (2019)	27.88%	19.25%
count	330	322

Indicator:NREGA work day	Control	Treatment
NREGA work day during last 12 months(2019)	37.565	30.097

Income from NREGA wage work (Rs)	6423.652	5146.548
% of samples	27.88%	19.25%

Indicator	Control	Treatment
Total wage income (NREGA, JTELP, Other)	11074.29	7580.418
Count	105	91

Indicator	Control	Treatment
NREGA induced benefits to household (last 12 months)	61.70%	49.21%
Count	92	62

Indicator	Control	Treatment
NREGA induced benefits to household (last 12 months)	61.70%	49.21%
count	92	62

Indicator	Control	Treatment
HH benefited with a permanent asset-NREGA	5.43%	28.81%
count	92	59

Indicator	Control	Treatment
Community benefited with a permanent asset-NREGA	25.76%	40.37%
Wage work other than MGNREGA	9.39%	5.90%
No of days	80.73	12.54
count	330	322

Indicator	Control	Treatment
Wage for other than MGNREGA and JTELP	16842.86%	9326.32%
count	28	19

Indicator: Who provided services	Control	Treatment
NGO Staff	27.03%	4.88%
Other agency	45.95%	1.46%
& line dept Staff	27.03%	0.98%
Project Staff		82.93%
Staff & NGO staff		9.76%
count	37	205

Indicator: Satisfaction with service delivery by the project	Control	Treatment
Poor		1.05%
Average		52.88%
Good		46.07%
count		191

Indicator: Satisfaction with service delivery by the NGO staff	Control	Treatment
Poor	12.50%	0.00%
Average	50.00%	30.00%
Good	37.50%	70.00%
Count	8	30

Indicator	Control	Treatment
Support from other project/scheme	32.12%	43.17%
Count	330	322

Indicator: Ever stopped using project service	Control	Treatment
Yes	0.00%	6.52%
No	35.76%	78.57%
Can't say	64.24%	14.91%
Count	330	322

Indicator: What service you stopped using	Control	Treatment
Input support		14.29%
Training and demonstration		4.76%
Training and input support		42.86%
Training, input and market support		33.33%
Other		4.76%
Count	0	21

Indicator: Contact with project staff during last 12 months	Control	Treatment
Frequently		39.42%
Occasionally		48.54%
Rarely		12.04%
Count	0	274

Indicator: Satisfaction with project staff	Control	Treatment
Frequently		25.50%
Occasionally		64.96%
Rarely		9.49%
Count	0	274

Indicator: Total household income	Control	Treatment
Household income (without salary)	8128.569	13945.45***
Household income (with salary)	23366.15	26906.45
Household income (with salary and other sources)	50149.78	67009.73***
Count	330	322
*** p<0.01, ** p<0.05, * p<0.1		

Indicator: Total household income	Control	Treatment
Cropping intensity	101%	117%***
Count	307	317
*** p<0.01, ** p<0.05, * p<0.1		