

JHARKHAND TRIBAL EMPOWERMENT AND LIVELIHOODS PROJECT

ENDLINE REPORT

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CONTENTS

List of Tables *4*

List of Figures *4*

1 CONTEXT *18*

1.1 ABOUTJTELP 18

1.2 ABOUT ENDLINE SURVEY 19

2 METHODOLOGY *20*

1.1DATA COLLECTION METHODS 22

1.1.1 QUANTITATIVE DATA COLLECTION 22

1.1.2 QUALITATIVE DATA COLLECTION 23

1.2DATA ANALYSIS 23

1.3 LIMITATIONS AND CHALLENGES FACED 23

3 MAJORFINDINGS *25*

3.1 DEMOGRAPHIC ATTRIBUTES OF RESPONDENTS 25

3.1.1 AGE 25

3.1.2 RELIGION 25

3.1.3 CASTE 25

3.1.4 GeNDER OF Head of the HOUSEHOLD 26

3.1.5 EDUCATION LEVELS 26

3.2 OCCUPATION & INCOME SOURCES 27

3.2.1 PRIMARY OCCUPATION 27

3.2.2 SECONDARY OCCUPATION 27

3.2.3 HOUSING AND SANITATION STATUS 28

3.3 PROJECT OUTCOMES 30

3.5 PROJECT IMPACTS 43

5. Conclusion 50

LOG FRAME- SUMMARY OF OUTCOMES *52*

Annexure 2: Data Tables *53*

LIST OF TABLES

Table 1: Age wise distribution in the sample in Endline Survey 25
Table 2: Religion wise distribution of the sample in Endline Survey 25
Table 3: Caste composition 26
Table 4: Sample distribution by gender of the respondent 26
Table 5: Sample distribution by Education Level 27
Table 6: Sample distribution by Primary Occupation 27
Table 7: Sample distribution by Secondary Occupation 28
Table 8: Other Secondary Income Occupations 28
Table 9: Type of Housing 28
Table 10: House expansion and improvement in water supply & sanitation in last 12 months 29
Table 11: Sample Distribution by purchase of assets in last 12 months 30
Table 12: Household owning small and large agricultural assets 30
Table 13: Distribution of Malnutrition (weight for age) ..... **Error! Bookmark not defined.**
Table 14: Distribution of Malnutrition (Height for age) ..... **Error! Bookmark not defined.**
Table 15: Food Security (Household facing food scarcity) 32
Table 16: Food Security (Season wise) 32
Table 17: Samples growing various crops 34
Table 18: Cropping Intensity and Area under crops 37
Table 19: Average Income from Lease out 37
Table 20: Average Annual Income from Agriculture (In Rs) 37
Table 21: Average Income from NTFP 37
Table 22: % HH involved in Aquaculture 37
Table 23: Average Income from Aquaculture 38
Table 24: % HH involved in Bee Keeping 38
Table 25: Average Income from Bee Keeping 38
Table 26: Average Income from Mushroom cultivation 38
Table 27: % HH involved in Mushroom cultivation 38
Table 28: % HH involved in NTFP collection 38
Table 29: % HH owning Livestock (Endline) 38
Table 30: % HH generated income from Livestock 39
Table 31: Average Income from Livestock 39
Table 32: % HH involved in any family business activity 41
Table 33: Availability of business and Net income 41
Table 34: Youth groups enrollment and satisfaction 42
Table 35: Migrated During Last 1 Year (Male) 48
Table 36: Duration of Migration 48
Table 37: Migrated During Last 1 Year (Female) 48

LIST OF FIGURES

Figure 1: Education Level of Project and Control Samples in the Evaluation 27
Figure 2: Type of housing facility 29
Figure 3: Average area per family under different crops in project samples of 4th AOS and Endline 35
Figure 4: Average area per family (acre) in project samples 35

Executive Summary

The Jharkhand Tribal Empowerment and Livelihoods Project (JTELP) has been built on the experience of the IFAD-supported Jharkhand Tribal Development Programme (JTDP). The primary focus of the project is to strengthen community-based institution, improve natural resource management, and improve technology adoption, market linkages for agriculture and horticulture crop production and animal husbandry activities to enhance the economic well-being of the tribal households.

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 Singhbum, East Singhbum 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 percent have been chosen for intervention underJTELP. 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 percent households have been from PVTGs as they are poorest even among the STs.

The evaluation of the project included 3000 households across all the 14 districts. The project and control sample included 1500 odd households respectively. The sample description indicates that majority of the area in the sample are ST dominated and 73.5 percent of the household are Hindu. 16 percent of the household are women headed households. Educational levels are generally very low in Jharkhand as only 15 percent of the household have completed primary school and 7.2 percent have completed high school. 70.4 percentof project household and 46.6 percentof control householdsaid that own farming was their primary occupation.Major source of secondary income for the respondent's in project as well as control location is farm labour.

The project has undertaken various interventions to contribute to the larger project level outcomes. The key achievements are seen in the various outcome level indicators as per the log frame.

Changes in Economic Well Being of the Project

The project has contributed to the overall increase in household asset ownership**.** The ownership of assets with time has improved. Substantial increase has been observed in the purchase of bicycles in both the project and the control sample, compared to baseline year. Purchase of two wheelers (motorcycles/scooter) has not been very high and just had a 1-3 percentage change across project and control locations respectively.44 percent and 40.8 percent of project and control samples reported to have purchased at leastoneasset.

Project interventions have contributed to the rise in income. The baseline figure of males and females for income generation activities shows that a large proportion of males and females are dependent on agriculture and then on animal husbandry. Goatry, Poultry farming was the second most preferred activity for the males as well as females.

Average Annual Income at Endline		
	Project	Control
Average Household Income	99,893.02	56,955.76
N for each sub category of household is different		

The overall average income of the household was calculated from all the upland and lowland farmers in the sample. The Income gained from different activities were higher in project area as compared to control

sample. Average income earned from agriculture formed the larger share in the overall income, with less than 2 percent from livestock and Sale of NTFP. About 3 percent of the share of income was also from small business enterprises in the project household.

One third of the household in the region earn their livelihood through animal husbandry activities. Average income earned from the animal husbandry activities is Rs 17,701 for those who have exclusive livestock as primary activities (calculated not on the whole sample). The gross margins from piggery activities have appeared to be higher compared to goatry and poultry activities. The gross margin is in the range of Rs 1 lakh and hence in locations where it is conducive it may be promoted.

A comparison with the overall income levels indicate that there has been an incremental gain of 49% in the overall income in which a large contribution is from agriculture income and livestock income.

Average AnnualHousehold Income at Endline					
	1st AOS (2016)		Endline (2021)		DiD
	Project	Control	Project	Control	Percentage change
Below 1700	31.0	39.0	18.1	43.2	-17.1
1700-5000	66.0	60.0	56.2	43	7.2
5001-9000	2.0	1.0	20	11.2	7.8
Above 9000	1.0	0.0	6.1	2.6	2.5

	5th AOS		6th AOS		Endline (2021)	
	Project	Control	Project	Control	Project	Control
Total Average Income	67,009.7	50,149.8	86,932.7	51,407.1	99,893.02	56,955.76

Changes in Social Well Being of the Project

Various types of community institutions have been promoted under the projects such as SHGs, Youth clubs, Kisan club, Village Development Committees, GSPEC etc. The highest participation of project sample was observed in Producer Groups (18.1 percent), Youth groups of JTELP (47 percent) followed by livestock groups (10.9 percent). GSPEC as an institution have been found very actively involved in various developmental activities. The designated member of the GSPEC were provided training on GSPEC management and book keeping, Monthly meeting were organised timely with minute of every meeting. The members of the GSPEC were provided training on how to prepare village plan focussing on irrigation, agriculture and livestock and livelihood. They were also assigned to mobilise villagers for formation of SHG and YG.

Benefits of Interventions from Youth Groups

About 47 percent of the youth in the sample were part of the Youth Groups. 73% of the youth who were part of the youth group were satisfied from the youth benefits. Seed capital was provided to youth groups for starting micro enterprises. Various IGA activities such as food processing, agriculture input trading, Shoe/chappal making, photocopy machine, computer, readymade garments selling, Jhalmurhi selling and poultry farming. Youth were provided skill enhancement training and exposure visit which provided an earning of monthly Rs.4,000- 10,000 by an individual youth (generally 2-3 members in a group). Focus of the group is mainly on loans and savings.

Benefits from Self Help Groups Created under the Project

Intervention of building and nurturing SHGs have empowered women to come out in open and participate in self and community decisions making process. SHGs have been able to provide easily accessible loans

for consumption and business purposes. The project has promoted financial inclusion by opening up of Bank accounts for the SHG groups and an additional source of income for the members.

SUMMARY OF LOG FRAME INDICATORS

The achievements against the logframe indicators is captured below. In case of few of the indicators the baseline values were not present and hence the baseline values have been reconstructed by either using a secondary figure or project initial AOS (4th Annual Outcome Survey) for comparison.

(NA- Data Not Available)

			Baseline		Endline		Remarks
			Project	Control	Project	Control	
Project Goal	1	At least 75% of households with improvement in household asset ownership index	15	8	73.4	69.8	The indicator is calculated from primary survey through an asset index. The percentage calculates percentage of HH who presently owned improved assets within last 1 year.
		% HHs improved household asset - Percentage (%)	15	8	73.4	69.8	
	2	**Reduction in the prevalence of child malnutrition by gender**	-	-			Prevalence of child malnutrition is calculated as per WHO definition of normative weight that a child should have as per their age. The Baseline for child malnutrition was not present and hence has been reconstructed based on NFHS 4 data of 2015-16.
		% reduction child malnutrition - Percentage (%)	NA	-	47.76	50.77	
		% reduction child malnutrition - Percentage (%) male	38.5	-	56.25	48.48	
		% reduction child malnutrition - Percentage (%) female	47.7	-	43.75	51.52	
	3	**At least 75% of households that have improved food security and incomes (household having 12 months of food security)**					The household food security is calculated from primary data. There has been 1 percent no reduction in instances of food insecurity however comparatively control areas are further 1 percent lower. The baseline did not have a control value
		Households - Percentage (%)	99	-	99.8	99.7	
	4	**Reduction in IMR from 67 and increases in % of child immunization from 34%**					The values have been reconstructed for child immunisation based on secondary estimates of NFHS 4 (2015-16) and NFHS 5 (2019-20)
		% increase child immunization - Percentage (%)	63.3	-	75.5	-	

Description of the Achievements of project Goals

1. At least 75% of households with improvement in household asset ownership index:

The wealth index (or asset index) is a practical way to classify the households according to their socio-economic status. A proxy for household wealth based on household assets and household characteristics (such as number of bedrooms) is an alternative to see to what extent there has been progression in the status of the household. The project targets that atleast 75% of the households by end of the project has improved asset ownership. While this is a correlated impact, effort have also been made by the project to improve overall asset ownership by promoting activities that will influence overall income of the household. The project has also promoted various farm and non-farm assets in its regions. Farm assets such as shed/ shelter and non-farm assets such as one developed during enterprise development.

The indicator was calculated using an asset index at the household level with a list of 33 types of Assets. The list contained consumable assets both small and large and agriculture assets majorly equipment's both small and large. Overall the project seemed to have nearly achieved the target with 73.4% of the project household reporting ownership of atleast one asset with an average asset holding of 3 assets for small and large agriculture equipment's. A consistent increase in the asset change can be seen the purchase of assets over last 3 years as compared to baseline with a dip during Covid-19 pandemic affected years when consumption focus was more on food consumables than on assets. The change and increase in ownership is seen in current year as community has achieved resilience to cope with Covid-19 and push factors from project to improve income avenues. The push factor has also been seen in the control areas by various other departments working in the region to improve economic conditions of the households. Percentage of household reporting purchase of atleast 1 new asset in last 12 months indicate that there has been a consistent growth till 2019 with a dip in year 2021 which was a pandemic impacted year.It is interesting to observe that among all the assets people have bought, compared to first AOS and endline higher share is for ownership of bicycles and number of mobile phones. The purchase of large or high valued assets such as TV and jewellery (gold/silver) shows marginal change in the project and control samples but has increased compared to the last year.

1st AOS	4th AOS	5th AOS	6th AOS	Endline
AOS 2016	**AOS 2019**	**AOS 2020**	**AOS 2021**	
(Purchase of Assets)	(Purchase of Assets)	(Purchase of Assets)	(Purchase of Assets)	(Ownership of assets)
15% (Project) 8% (Control)	**48 % (Project) 25% (Control)**	**99% (Project) 98% (Control)**	**55% (Project) 49% (control)**	**73.4 (Project) 69.8 (Control)**

2. **Reduction in the prevalence of child malnutrition by Gender**

The indicator is a key impact area to indicate overall improvement in child health in the project region. Project has attempted to make change in consumption pattern of the household. The indicator has been calculated from primary survey in both baseline and endline phase. Secondary data sources from NFHS (National Family Health Survey) indicates that the overall state average is 44.5 percent which is nearly half of the children population in the state below 5 years still malnourished (weight as per age). While there has been a decrease of about 4 percent compared to the year 2015-16 NFHS data. The district wise averages are also varying with the highest in West Sighbhum and the lowest in Ranchi district.

CHILD NUTRITION(Weight-for-Age)		
Name of District	**NFHS 4 2015-16**	**NFHS 2019-21**
Dumka	53.5	44.9

CHILD NUTRITION(Weight-for-Age)		
Name of District	**NFHS 4 2015-16**	**NFHS 2019-21**
East Singhbhum	49.8	41.6
Godda	46	40.7
Gumla	47.7	38.7
Jamtara	48.8	46.2
Khunti	53.8	44
Latehar	44.2	39.4
Lohardaga	48.1	43.4
Pakur	46.9	51.4
Ranchi	43.8	40.6
Sahibganj	49.7	44.8
Saraikela	52.6	48.7
Simdega	47.9	37
W.Singhbhum	66.9	62.4
Overall	49.9	44.5

Primary data indicates that there has been an overall reduction of 2 percent compared to state average of baseline year. The prevalence of cases of child malnutrition cases is also 3 percent lower as compared to control area. There has been a reduction seen in case of girl child malnutrition but an increase in boys malnutrition.

Reduction in the prevalence of child malnutrition by gender	Baseline Project	Baseline Control	Endline Project	Endline Control
% reduction child malnutrition - Percentage (%)	49.9[1]	-	47.76	50.77
% reduction child malnutrition - Percentage (%) male	38.5	-	56.25	48.48
% reduction child malnutrition - Percentage (%) female	47.7	-	43.75	51.52

3. At least 75% of households that have improved food security and incomes (household having 12 months of food security)

The indicator is a composite indicator which measure both improvement in food security and income levels. The indicator is primarily reported for improved food security where the measurement is done through primary data collection on household reporting for no such cases of scarcity of availing at least 2 meals a day in last 12 months. While there is decrease seen from baseline to 4th AOS period but however in subsequent years the food secure households have increased. During 6th AOS it has been also indicated that several externalities have been an influencing factor in improving the food security. Thefood security has also improved in both project and control samples compared to 5th AOS. Many of the households during qualitative consultation indicated that in the year 2020 Government of Jharkhand had taken several initiatives to ensure timely and advance supply of PDS ration because of which household level food supplies were managed. The doorstep delivery of ration through SHG members for PVTG families have also added an advantage for the families in terms of timely delivery and availability of food for throughout the year.

% Household reporting improved food security

[1] State Average from NFHS Data 2015-16

Baseline	4th AOS	5th AOS	6th AOS	Endline
	AOS 2019	AOS 2020	AOS 2021	
99% (Project) - (Control)	88 % (Project) 66% Control)	82.9% (Project) 77.3 (Control)	86.3% (Project) 81.6% (Control)	99.8 (Project) 99.7 (Control)

4. Reduction in IMR from 67 and increases in % of child immunization from 34%

The indicator is a composite indicator measuring both IMR reduction and child immunisation. The indicator has been calculated from secondary sources. IMR (children per 1000 live births) as per NFHS 4 has been very high at 44 deaths. NFHS 5 indicates a reduction of 38 deaths per 1000 live births. In case of child immunisation the secondary data indicates that there has been an overall increase of 12.2 percent in child immunisation rates. The district wise information from the NFHS data is presented below.

% of CHILD IMMUNIZATION		
Name of District	NFHS 4 2015-16	NFHS 5 2019-21
Dumka	76	48.9
East Singhbhum	68.9	88.8
Godda	60.1	63.9
Gumla	58.8	85.3
Jamtara	62.4	78.8
Khunti	72.7	71.9
Latehar	52.7	75
Lohardaga	60	88.2
Pakur	70.1	69.4
Ranchi	67.7	73.8
Sahibganj	66.2	66
Saraikela	65.1	80.9
Simdega	56.9	79.3
W Singhbhum	49.7	87
Overall	63.3	75.5

Other Outcomes

			Baseline		Endline		Remarks
			Project	Control	Project	Control	
Development Objective		122,400 households report income increases from rainfed agriculture from INR 483 to INR 2035	-	-	157295	-	82.9% household report increase in income above INR 1700. Projecting it for the entire sample for 189740 it would be 1,57,295

							Income calculated from production value of all upland crops of all seasons.
		Below 1700	31	39	18.1	43.2	-17.1
		1700-5000	66	60	56.2	43	7.2
		5001-9000	2	1	20	11.2	7.8
		Above 9000	1	0	6.1	2.6	2.5
		Average income of HH from rainfed agriculture			77115.5[2]	32497.2	Average net income
		136,000 households report increases in total incomes	-	-	1,63,748	-	Overall 77.6 report increase in income Projecting it for the entire sample 1,63,748
		Below 1700	31	39	17.2	47.6	Average Income in total 99,893 (Project) 56,955(Control). Total incomes are income from all sources.
		1700-5000	66	60	64.7	43	
		5001-9000	22	1	15	8.2	
		Above 9000	11	0	3.1	1.2	
		Average household food production increases from 644 kg to 813 kg/year					
		Kg increase average production per year - Number	-	-	1434	830	(upland) Pulses, minor millet, maize, Gram Horse gram, groundnut, Paddy DSR

[2]The incomes gained from rainfed agriculture is usually for 6-7 months in a year. Majority of earning is between July-October during which Paddy is grown. The period between May to July- Maize and other vegetables are grown giving proportionately lesser income. Very few vegetables and maize are grown in the period betweenOctober-December in the residual moisture after rainy season giving nominal returns. The average income therefore is primarily dominated from returns of 6-7 months of rainfed agriculture

							(4%)
		65,000 women SHGs report improvement in decision making, assets, mobility etc.	-	-	-	-	
		Female - Number					
		4,920 youth report benefits from the projects	-	-	-	-	
		Satisfied from youth group activities	-	-	-	-	
		10,000 PTG households report increases in incomes from livelihood activities averaging INR 13,749	-	-	8451	-	Total PTG household reached by project is 12,074. 70% report improved income above the slab of 20,000 Average income of PVTG households calculated from primary survey.
		Below 1700			30.1	47.6	
		1700-5000			64.7	50	
		5001-9000			4.2	1.7	
		Above 9000			1.2	0.8	
		No. of gram sabha - Number					The Baseline report indicates participation of women in Gram Sabha meeting and not for overall population which is not comparable. The decrease in participation is seen
		% Household participate in Gram Sabha	-	-	47.2	35.4	

							due to Covid-19 pandemic as number of meeting conducted were less compared to regular annual meetings while on the contrary GSPEC meeting participation have been very effective with about 72 percent people attending the meetings.
Outcome		**122,400 highland and upland farmers** adopt improved technology and in situ water-harvesting measures					Includes income from agriculture and horticulture crops
		income increase from INR 483 to INR 2075 household / year					
		INR currency increase income per year - Number			77,115.5	32497. 2	
		average yield increases from 1,624 kg/ha to 2,070 kg/ha			2219.7	1383	Includes all upland crops grown in sample (Wheat, Oilseed. Maize, Pulses, Paddy DSR)
		Barbatti			4.1	**3.2**	The estimate is per Household
		Wheat (Winter crop) (Qtl/Acre)	-	-	8.1	7.2	

		Oilseeds (Qtl/Acre)	-	-	4.2	3.1	
		Maize (Qtl/Acre)	-	-	9.1	8.2	
		Pulses (Qtl/Acre)	-	-	4.9	3.9	
		average cropping intensity increase of 75% to 105%	-	-	195.4	166.4[3]	
		% average cropping increase - Percentage (%)					
		1.2.2 Households reporting adoption of new/improved inputs, technologies or practices			86.4	57.2	Overall-Household reporting adoption of any one of the technology
		Households - Percentage (%)					
		Seed Sorting, grading, treatment and germination test	-	-	90.7%		
		Use of Hybrid/Improved Seeds	-	-	85.1%		
		Seed storage technology	-	-	86.2%		
		Line sowing	-	-	84.36%		
		Intercultural operations	-	-	83.30%		
		Practicing Organic Farming	-	-	86.09%		
		Tilling Practices	-	-	86.46%		
		Multiple Cropping	-	-	86.68%		
		Nutrient Management of Crops (INM)	-	-	86.44%		
		Water Management of Crops	-	-	88.84%		
		Pest Management of Crops (IPM)	-	-	89.44%		
		Weed Management of Crops	-	-	85.87%		
		Covering the Field with a Layer of Mulch	-	-	83.94%		
		1.2.4 Households			92%		% of

[3]Cropping intensity has also relatively improved in control locations. The primary reason for the same is the presence of TSA (Pradan) in almost 50% of the control blocks (selected for endline assessment) who is also an implementing agency for JTDS.The control locations are exposed with several external factors which has also led to improvements in rainfed agriculture in the region. Similar such schemes such as CFT programme (Cluster facilitation Team) under MGNREGA, programmes under Tribal sub plan,interventions under Jharkhand State Livelihood Promotion Society, interventions under Special Central Assistance for left wing extremist districts, NGOs such as Tata Trust, Syngenta foundation and others are also prevalent in the control locations influencing the agriculture development in the control block. Hence, in this case the region taken for control may not be a true control for comparison of results.

		reporting an increase in production					Household reporting improvement in production
		26,640 lowland households adopt irrigated agriculture and improved farming practices each with average area of 0.2 ha			22,958	-	It is calculated from primary survey of total household having cultivable land those adopting irrigated agriculture, 12.1 in Project Area (22958 out of 189740 farmers reached) and 8.2 in control area
		Farmers report increased farm yields ranging between 25% and 40% and increases in cropping intensity from 84% to 123% and income increases from INR 13,955 to INR 36,091					
		% increase farm yields - Percentage (%)-Productivity (Qtl/Acre)			Paddy-57.7% Oilseeds-111.1% Vegetables -38.4%		
		Paddy (Kharif)	9.9	7.9	15.6	13	Baseline figures are from 4th AOS. Last there were heavy rains and therefore there was issues in harvest of maize and oilseeds
		Oilseed (Mustard)(Rabi)	1.8	7.4	3.8	3.1	
		Vegetables	17.7	17.5	24.5	22.1	

		Increase in income (Average Household income)	-	-	37,949.65	25,130.47	INR/Year
		% increase in cropping intensity - Percentage (%)	-	-	116.6	110.9	
		1.2.3 Households reporting reduced water shortage vis-à-vis production needs					
		Households - Percentage (%)	-	-	0.9	13.2	The measurement calculate % of Household reporting water scarcity in last 12 months
		Women-headed households - Households					
		25,150 households benefit from cluster-based commercial production of vegetables, mango, and livestock and reporting net incomes of INR 11,000 and 31,000 a year					
		Households - Number					
		Income from vegetable cultivation from INR 21,693 to INR 35,063 per year per household	-	-	14,400[4]	9,800	INR- Average net income from primary survey
		Income from livestock keeping increased to 15,000 Rs/year/HH			17701.9	7881.3	Average net income from primary survey
		INR currency income - Number					

[4] The 6th AOS second most tried activity was improved vegetable cultivation with 36.9 percent of project farmers having knowledge about the practices. Out of those 95 percent, reported to have adopted the practices. The average area under vegetables have increased during 6th AOS due to various vegetable clusters being promoted. However the sale of vegetables could not take off due to Covid-19 pandemic and untimely rains in last two years. As a result the expected income gains are found to be lower as expected by the project.

		Piggery (Annual)			12,100	5,617	Average net income (INR) from primary survey Average Herd Size 4
		Goatry (Annual)			6,288	4,100	Average net income from primary survey Average Herd Size 5
		Poultry (Annual)			5,198	3,254	Average net income from primary survey Average Herd Size 18

1 CONTEXT

1.1 ABOUTJTELP

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 percent are Scheduled Tribes (STs) and 78 percent are rural. With 51.6 percent 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 percent which is less than national average literacy rate of 72.98 percent. There is also a high level of gender gap in literacy rate evident from the male literacy rate of 76.84 percent, and the female literacy rate of 55.42 percent.

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 oflife.

Though agriculture is the main rural occupation, over half of the cultivable land remains fallow and only 11 percent of the area sown is irrigated. Over 70 percent farms are smaller than 1 ha. Historically a key livelihood source for the Tribal communities, forests comprises 30 percent 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.

The Jharkhand Tribal Empowerment and Livelihoods Project (JTELP) has been built on the experience of the IFAD-supported Jharkhand Tribal Development Programme (JTDP). The primary focus of the project is to strengthen community-based institution, improve natural resource management, and improve technology adoption, market linkages for agriculture and horticulture crop production and animal husbandry activities to enhance the economic well-being of the tribal households. JTELP has foster convergence with the on-going Tribal and rural development programmes of the Government ofIndia

The expected project outcomes are

1. 1, 22,400 tribal households from highland benefit from increased food production, greater participation and returns from improved rain fed farmingpractices;
2. 5,828 functional community groups created including Gram Sabha Programme Execution Committees (PEC), women's groups, youth's groups and PVTGshouseholds;
3. 26,640 households in lowland benefit from improved village irrigation facilities;and
4. 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 Singhbum, East Singhbum 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 percent have been chosen for intervention underJTELP

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 percent of total project costs), the Government funding is estimated at USD 6.3 million (5.2 percent of the total), MGNREGS USD 48.60 million (40 percent of total), while the beneficiaries contribution is USD 0.95 million (0.8 percent of total project costs). Taxes (funded out of the Government contribution) amount of USD 2.8million.

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 naturalvillages.

1.2 ABOUT ENDLINE SURVEY

As per IFAD Guidelines, Baseline, Midline and End line survey were to be conducted for impact evaluation of the project on the project stakeholders. Baseline and midline were undertaken in the year 2016 and 2017 respectively. Baseline and midline surveys were undertaken by Atlas Management Consulting Pvt. Ltd. and Access Development Services respectively. For conducting the end line survey, Sutra Consulting Pvt. Ltd. was commissioned in 2022 to conduct the end line survey. The specific objectives of the end line survey are as follows:

- Assess and validate the outcome targets that the project activities intended to accomplish and the progress thereof
- 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 occurred during programme implementation that affected the achievement of results
- Provide actionable recommendations that could have improved project implementation

2 METHODOLOGY

The project development objectives are measured through verifiable indicators which is monitored during the baseline and midline in 2016 and 2018 respectively. The consultant team had an inception meeting with JTDS team anchoring the project implementation and the expected results. The methodology adopted for outcome evaluation is based on difference in difference model wherein the project results were compared with the counterfactual sample to make the comparison.

There are varied and dynamic variables affecting the environment within which the programme operates, such as socio-economic, environmental, political, and cultural factors, which usually cannot be isolated, manipulated, or measured and which makes it difficult to show attribution. The study, thus, focuses on exploring contribution of the programme on any progressive changes that occurred in project areas.

A mixed method approach was adopted to carry out the evaluation. A quantitative sample of 3000 households were covered across all the districts as per the ToR mandate. Qualitative consultations with district officials, Panchayati raj institutions, SHGs and youth groups were also undertaken to understand extent of benefits accrued by the beneficiary because of the interventions. Draft structured questionnaire for household survey for covering projectand control households was designed referring the baseline questionnaire and updated logical framework of the project. Draft questionnaire was shared with JTDS for their inputs and approval. Based on the inputs received the questionnaire was finalized and translated. The quantitative survey was done following a technology driven model and interviews were done using CAPI. Final household survey questionnaire is attached as annexure-1 for reference. Focus Group Discussions were carried out take feedback from beneficiaries on existing intervention. Success stories from each district was captured to understand the dynamics from every district under the project.

Total Sample Coverage for Quantitative Survey			
State	**No. of Sample Households**	**Project**	**Control**
Jharkhand	3023	1523	1500

The assignment was executed in a phased manner as an initial consultation and desk review was done to understand past results. A desk review of project documents was done to gain understanding on the project interventions. Following documents were reviewed for the same.

- Project ImplementationManual
- Project logical framework updated up to July 2021
- Baseline questionnaire
- Baseline report
- List of project districts, blocks andvillages
- Livestock InterventionStatistics
- Agriculture InterventionStatistics

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 percent households have been from PVTGs as they are poorest even among the STs. The project target groups are tribal households, including almost 10,000 PVTGhouseholds.

Terms of Reference (ToR) for end line survey 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, the sample was selected using 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 following sampling strategy have been adopted:

In total there are 32 intervention blocks spread across 14 Tribal Sub-Plan districts where JTELP interventions are being provided to the community. Through community participation a strong chain of activities is being carried out in the project villages by various NGOs working with JTDS. We understand that there could be variance in project results because of geographic spread and implementation challenges faced by implementing agencies. To keep a track and avoid biases in the results of any outcome study it is very important to prepare a sampling plan having a unique representation of population.

Selection of Treatment Villages

The sample frame consists of 1779 intervention villages spread in 32 blocks, 64 villages were selected for the end line survey by keeping following parameters in mind.

- In order to keep the data uniform and aligned to the rationale of the study, from each block a gram panchayat was selected which has a representative proportion of ST population.
- Collecting data from one village would result in bias and therefore it was agreed that two villages would be taken in the sampling frame.
- The end line study tried to cover maximum of the villages covered in the baseline study.

Sl.	District	Block	GramPanchayat	Village 1	Village 2	Total Sample
1	**Gumla**	**Bharno**	Domba	Amboa	Domba	110
2		**Sisai**	Nagar	Nagar	Gokhulpur	
3	**Khunti**	**Arki**	Birbanki	Birbanki	Chukulu	111
4		**Karra**	Meha	Malgo	Meha	
5	**Latehar**	**Barwadih**	Mangra	Amdiha	Hendehas	107
6		**Manika**	Matlong	Mail	Matlaung	
7	**Lohardaga**	**Bhandra**	Bhita	Bhita	Kachmachi	107
8		**Kairo**	Guri	Guri	Nagra	
9	**Ranchi**	**Bundu**	Baruhatu	Korda	Reda	109
10		**Tamar**	Arahanga	Arahanga	Buruhatu	
11		**Angara**	Sursu	Sursu	Singari	
12	**Simdega**	**Kurdeg**	Barkibiura	Barkibiura	Labdera	107
13		**Simdega**	Sewai	Sansebei	Sebei	
14	**Dumka**	**Gopikander**	Kharounibazar	Ahrichuwan	Karudih	107
15		**Masalia**	Haroraidih	Aanandpahari	Palasi	
16	**Godda**	**Boarijor**	Dumaria	Adro	LohatamboAagwa	112
17		**Sundarpahari**	Bansjori	Bansjori	Kawadhab	
18	**Jamtara**	**Fatehpur**	Banudih	Banudih	Brindabani	109
19		**Jamtara**	Duladiha	Raniganj	Rupaidih	
20	**Pakur**	**Amrapara**	Panchupara	Badhapara	Panchupara	107
21		**Littipara**	Jamjori	Dasgora	Jamkandar	
22	**Sahibganj**	**Borio**	JatekKumarjori	JatekKumarjori	Kushtand	110
23		**Taljhari**	BhatbhangaSanthali	Bhatbhanga	BhatbhangaPahar	
24		**Dumaria**	Palasbani	Bakrakocha	Palasbani	107

25		**Potka**	Tentla	Pora	Tentla	
26	**Saraikela**	**Kuchai**	Chotasegoi	Chotasegoi	RaisindriPahar	109
27		**Rajnagar**	Bandu	Bandu	Richituku	
28		**Saraikela**	Murkum	Badabana	Mudkum	
29	**WestSinghbhum**	**Khuntpani**	Ulirajabasa	Garajabasa	Ulirajabasa	111
30		**Sonua**	Dewanbir	Dewanbir	Taira	
31		**Tonto**	Kenjara	Kenjara	Salikuti	
32		**Goilkera**	Bara	Bara	Ghoraduba	
Total	**14**	**32**	**32**	**64**		**1523**

Control Villages

- In order to select the control villages from each of the 14 districts, it was ensured the selected village would have similar socio-economic and cultural characteristics as treatment villages. The social characteristics were matched for 20 percent villages which were replaced, 90 percent villages were same as in baseline. Thus, a total of 14 blocks and 14-gram panchayats having a representation of PTGs were selected for end line survey. In selection of this block, gram panchayat and villages, high proportion of ST population was given preference. From each of the gram panchayat 2 villages were selected into the study having same characteristics as treatment villages. For Ranchi, Saraikela and West Singhbhum a total of 3 villages were selected as the project area was large and diverse. A total of 31 villages in the control block were taken into study. The end line study tried to cover maximum of the villages covered in the baseline study. However, during analysis of the final data it has been observed that there were several other externalities operating in the control areas such as other Government and Non-Government programmes being implemented because of which for few indicators the results do not represent a true control. Due to absence of Baseline information for some of those select indicators a Difference-in-Difference could not be taken out which could have eliminated the effect of the externality.

Sl.	District	Block	GramPanchayat	Village 1	Village 2	Village 3	Total Sample
1	Gumla	Ghaghra	Bimarla	Bimarla	GhaghraPat	-	108
2	Khunti	Khunti	Landup	Landup	Sirum	-	108
3	Latehar	Latehar	Tarwadih	Kone	Nareshgarh	-	107
4	Lohardaga	Senha	Badla	Arahasa	Badla	-	107
5	Ranchi	Namkum	Dungri	Dungri	Gundu	Garsul	107
6	Simdega	Kersai	Kinkel	Karaigora	Kinkel	-	107
7	Dumka	Kathikund	Dhawadangal	Mahulpahari	Ranipahari	-	107
8	Godda	Poreyahat	Naodiha	Kathwan	Naudiha	-	107
9	Jamtara	Nala	Teshjoria	Paradal	Teshjoria	-	107
10	Pakur	Maheshpur	SaharGram	Amlagacchi	Chilgaon	-	107
11	Sahibganj	Mandro	Bartalla	Balbhadri	Bartalla	-	107
12	EastSinghbhum	Musabani	ForestBlock	Patharghara	Samaydi	-	107
13	Saraikela	Chandil	Aasanbani	Aasanbani	Kanderabera	Ramgarh	107
14	WestSinghbhum	Goeilkera	Koira	Koira	Goutamba	Baraivir	107
Total	**14**	**14**	**14**	**31**			**1500**

1.1 DATA COLLECTION METHODS

1.1.1 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 25 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 5 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 CsPro and smart phones.
- 2 days training programs for data collection team was conducted on 13th -14th February 2022 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 percent of sample data was cross-checked by the field supervisors and SUTRA team comprising of three professionals.
- In addition to this, villages which was covered in the study (both treatment and control) had a village level structured questionnaire which was manually collected by the enumerators having representation from various PRI representatives, SHG member and other village representatives. The collected data was entered in excel manually and taken reference for end line study.

1.1.2 QUALITATIVE DATA COLLECTION

14 District team consultation, 7 Focus group discussion with the various stakeholders such as SHGs, Youth Groups, PRI representative along with interaction with the project beneficiaries to collect 14 case studies from each project block.

1.2 DATA ANALYSIS

Statistical software SPSS 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 project. 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. Baseline data as reported in baseline report was used for comparison and assessment ofchange.

1.3 LIMITATIONS AND CHALLENGES FACED

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

- AOS study area was spread across 14 districts including project 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.
- The qualitative sample was a small sample and could capture limited reflections across the sites. However, since the researchers were from local area many of reflections could be noted during the interview time.

- 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 MAJORFINDINGS

3.1 DEMOGRAPHIC ATTRIBUTES OF RESPONDENTS

The section describes the demographic attributes of the sample covered during Endline survey. Analysis of the demographic attributes of the project and control samples is undertaken to ensure that both samples are comparable and the only difference in the sample is the project treatment as a distinguishing factor between the both samples.

3.1.1 AGE

The team covered respondents from different age groups however, the focus was more to include adult members of the household who are dispensing most responsibilities at home and have a decision making authority. The age analysis of the sample shows that the average age of the respondents in project samples was43 years and that in control samples is 44 years. The least aged respondent in both the samples is of 19 years and the oldest one is 90 years in project and 85 in control samples. Thus, right age group of respondents have been covered in both treatment and control samples.

Table 1: Age wise distribution in the sample in Endline Survey

	Percentage of sample (%)	
	Project	Control
Average age of Respondents	43	44
Min Age	18	18
Max Age	90	85

3.1.2 RELIGION

Majority of the respondents in both samples are Hindu by religion, 73.5 percent in project and 67 percent in control samples. Respondents belonging to both Muslim religion (1.3 percent and 1.9 percent) and Christianity (13.8 and 13.4 percent) are almost the same in both project samples and control samples respectively. Although there is slight difference in the religious composition of the samples, both samples are comparable.

Table 2: Religion wise distribution of the sample in Endline Survey

	Percentage of sample (%)	
Religion	**Project**	**Control**
Hindu	73.5	67
Muslim	1.3	1.9
Christian	13.8	13.4

3.1.3 CASTE

The caste composition analysis of caste categories of the project and control samples affirmed that the control samples were comparable with the project samples. 90.8 percent, 2.9 percent, 3.1 percent and 3.2 percent of the project samples belonged to ST, SC, OBC and General category respectively. Similar proportion of these caste groups was found among the control samples. The region is mostly dominated by Scheduled Tribes and about 3 percent of the population are in general and OBC category respectively.

The caste composition of the sample was also similar to that in the Baseline. With 90 percent of the population belonging to the ST category, JTELP teams focus on working for the upliftment of the STs can be affirmed and shows the effectiveness of thetargeting strategy deployed under JTELP.

Table 3: Caste composition

	Percentage of sample (%)	
	Project	**Control**
ST	90.8	84.6
SC	2.9	7.1
OBC	3.1	5.7
General	3.2	2.5

3.1.4 GENDER OF HEAD OF THE HOUSEHOLD

The state has about 13 percent of household who are female headed[5]. The endline survey also shows a similar proportion of household in the sample. The sample assessment of Endline survey indicates that there are about 16 percent household who are female headed and rest are male headed household. The project and control samples are fairly comparable in the Endline Survey.

Table 4: Sample distribution by gender of the respondent

	Percentage of sample (%)	
Household head	**Project**	**Control**
Male headed	84.0	87.0
Female headed	16.0	13.0

3.1.5 EDUCATION LEVELS

Analysis of education level of project and control samples revealed that still about half of the population in the project as well as control villages had no schooling. Only 15 percent completed primary school and 7.2 percent completed high school. The education level of respondents in Control sample as also similar as about 44 percent respondents having never had any schooling and 12.5 percent completed primary schooling and 6.4 percent completed high school. The proportion of respondents having completed Bachelors or above is about 2 percent similar to that in control sample. The table indicates that close to half of the sample household in project area have either studied till primary or have no schooling. Higher education seems very limited in the sample which also reflects the education scenario in Jharkhand. A Gender disaggregated information from secondary sources indicate that only 16 percent of women and 25 percent men aged 15-49 have completed their higher education.

Thirty-eight percent of women and 18 percent of men age 15-49 have never been to school. Higher education is very limited in Jharkhand. Only 16 percent of women and 25 percent of men age 15-49 have completed 12 or more years of schooling.

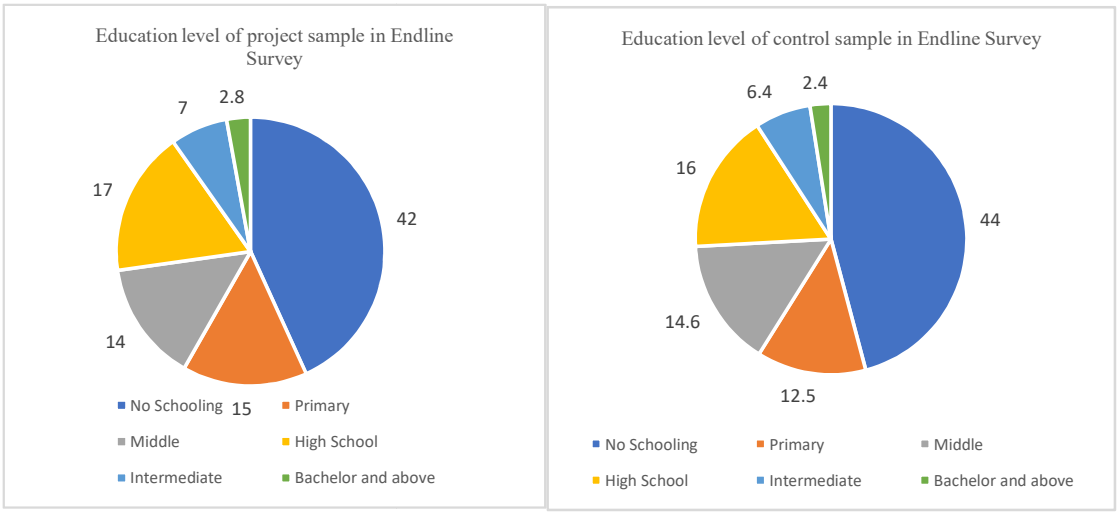
-NFHS-4 Jharkhand

[5]NFHS4-2015-16- Jharkhand

Table 5: Sample distribution by Education Level

Percentage of Sample (%)		
Education level	**Project**	**Control**
No Schooling	42.0	44.0
Primary	14.9	12.5
Middle	14.0	14.6
Intermediate	17.1	16.0
High School	7.2	6.4
Bachelors or above	2.8	2.4

Figure 1: Education Level of Project and Control Samples in the Evaluation



3.2 OCCUPATION& INCOME SOURCES

3.2.1 PRIMARY OCCUPATION

Jharkhand is considered to be an agrarian communityand majority of household has regarded own farming as primary occupation. 70.4 percentof project household and 46.6 percentof control householdsaid that own farming was their primary occupation. The second most followed occupation was farm labour/other daily wage labour with about 10 percent household in project and 40 percent in control dependent on them for primary occupation.

Table 6: Sample distribution by Primary Occupation

Percentage of sample (%)		
Occupation	**Project**	**Control**
Farming	74.7	54.1
Govt. Service	0.3	0.6
Private Service	0.9	1.7
Small Business/Enterprise	0.8	1.4
Agriculture Wage Labour	8.9	20.7
Daily Wage Labour (Non-Agriculture)	9.9	12.1
Other	4.4	9.3

3.2.2 SECONDARY OCCUPATION

Major source of secondary income for the respondent'sin project as well as control location is farm labour. The project seem to have been able to create diversified income avenues for the project households as it is evident from the increased engagement in farm labour and livestock production activities. Project has initiated 89 Pig, Poultry and Goat clusters cumulative till November 2020 to mark these improvements.

Table 7: Sample distribution by Secondary Occupation

	Percentage of sample (%)	
	Project	Control
Govt. Service	0.4	0.2
Private Service	0.6	1.4
Small Business/Enterprise	1.1	1.4
Farming	27.5	22.2
Agriculture Wage Labour	37.51	40.6
Daily Wage Labour (Non-Agriculture)	22.4	17.8
Retired/Pensioner	0.8	0.6
Other	9.4	15.6

Among those households who are into farming and other business and enterprising activities. It has been seen that about 30 percent of the households also have NTFPs collection and sale as a secondary source of income. Household involved in any family business activity were 5 percent higher than that of control and those involved in aquaculture was 3 percent more. It is indicative of the fact that the many avenues created under the project has led to building a secondary source of income for the households.

Table 8: Other Secondary Income Occupations

	Project	Control	Grand Total
% HH involved in NTFP collection	30.9	16.9	23.9
% HH involved in any family business activity	16.8	11.2	14.1
% HH involved in Aquaculture	4.5	1.2	2.8

3.2.3 HOUSING AND SANITATION STATUS

The housing conditions seemed to have slightly improved in the project area compared to last year as about 8 percentage point higher number of households now have Semi-Pucca house compared to 5th AOS. The proportion of households living in Kutcha houses have also reduced by 7.9 percentage point in project area. However, the households who have Pucca house are nearly similar as in last year but has significantly improved if compared with 4th year AOS. This surely indicates that there has been improvement in the economic well-being indicators.Overall compared to baseline there has been 0.3 percentage point change in household who have built pucca houses and 1 percentage point decrease in households who have kutcha houses.

Table 9: Type of Housing

Percentage of sample (%)				
	Baseline		Endline	
Housing	Project	Control	Project	Control
Traditional/Kutcha	83	88	82.0	86.0
Semi Pucca	14	10	14.1	11.1
Pucca	2.7	1.6	4.2	3.3

Figure 2: Type of housing facility

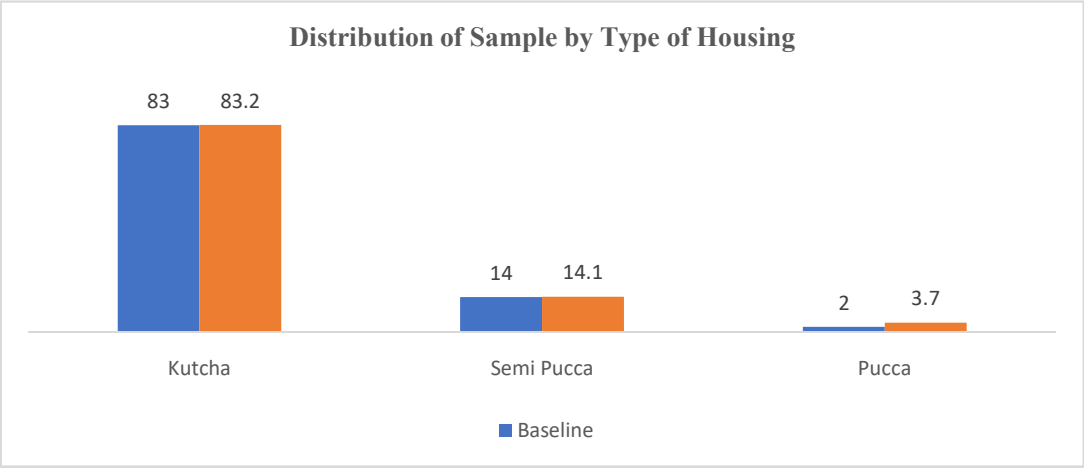


Table 10: House expansion and improvement in water supply & sanitation in last 12 months

Percentage of sample (%)		
Activity done in last 12 months	**Project**	**Control**
House expansion	32.2	21.2
Water supply and sanitation improvement	64.2	57.2

Higher proportion of project samples undertook house expansion in last 12 months than the control samples and the difference was highly significant. Similar trend was found in case of improvement in water supply and sanitation conditions. 64 percent of project samples reported to have improved their water supply and sanitation conditions while around 57 percent of control samples reported thesame. Additionally, the proportion for house expansion has increased fairly in the project sample than that in the control sample over the last two years.

The Ownership of Dwelling parameters indicate that people usually have their own house and there is a minor difference of 3 percentagepoint across project and control. Among other basic amenities such as owning Toilets the project household has a higher proportion than that of control. 92.6 percent household in project area have toilets as compared to 87 percent.

3.3 PROJECT OUTCOMES

3.3.1 IMPROVEMENT IN HOUSEHOLD ASSET OWNERSHIP INDEX

The asset holding among the population has substantially increased. The ownership of assets with time has improved.The overall ownership of assets was calculated through a list of assets owned by the household now.

Table 11: Sample Distribution by ownership of assets

	Baseline		Endline		Remarks
	Project	Control	Project	Control	
At least 75% of households with improvement in household asset ownership index	15	8	73.4	69.8	The indicator is calculated from primary survey through an asset index. The percentage calculates percentage of HH who presently owning improved assets.
% HHs improved household asset - Percentage (%)	15	8	73.4	69.8	

Substantial increase has been observed in the purchase of bicycles in both the project and the control sample, compared to baseline year. Purchase of two wheelers (motorcycles/scooter) has not been very high and just had a 1-3 percentage change across project and control locations respectively. It is interesting to observe that among all the assets people have bought higher number of mobile phones relatively as almost 44 percent household owned it which is the highest in proportion in the category. The purchase of other assets such as TV and jewellery (gold/silver) is comparable in the project and control samples but has increased compared to the last year.

Table 12: Sample Distribution by purchase of assets in last 12 months

	Percentage of sample (%)			
	Baseline		Endline Survey	
Asset purchased	Project	Control	Project	Control
Bicycle	18	15	58.2	50.6
Motor cycle/Scooter	12	3	13.9	11.5
Television	7	2	7.9	6.7
Gold/Silver/Jewellery	10	4	7.1	6.3
Other assets/mobile phones	11	6	44.0	40.8
No single asset bought in last 12 months	42	70	24.1	65.3

In the Endline Survey, it was found that 44 percent and 40.8 percent of project and control samples reported to have purchased at leastoneasset. It was interesting to note the difference in agriculture asset ownership. The percentage of household who own small and large assets of agriculture have almost doubled in project area as compared to the control area. Which means that there has been a surge of additional agricultural activities in the region.

Table 12: Household owning small and large agricultural assets

	Project		Control	
Asset	% of HH Own the asset	Average number of Household	% of HH Own the asset	Average number of Household
Plough/ Bullock cart	37.16%	1.43	26.53%	1.73
Power Tiller	0.46%	8.14	0.67%	5.40

Tractor	0.92%	5.21	0.93%	5.50
Spray Pump	10.24%	1.19	3.27%	2.16
Water Pump Set	5.71%	1.49	3.00%	2.00
Chaff Cutter	1.90%	2.97	0.93%	4.36
Winnowers	0.85%	5.08	0.53%	6.88
Thresher	1.31%	4.30	1.27%	6.26
Hand Hoe	47.87%	1.99	35.47%	2.02
Pick Axe	16.61%	1.66	14.13%	1.89
Single Pick Axe	13.20%	1.82	12.33%	1.87
Hoe	49.38%	1.91	37.80%	1.92
Animal Drawn Patella Harrow	3.55%	3.52	2.73%	2.80
Weeding Hook	1.64%	3.28	2.07%	4.03

3.3.2 REDUCTION IN THE PREVALENCE OF CHILD MALNUTRITION BY GENDER

The malnutrition data across the project sites were calculated for the children in the sample for the weight and height measure that should be there by their age. It was found that there were not much of stark difference among the project and control sites. Since there are no baseline data for the indicator it would difficult to estimate if project had any influence over child health in the location. However, it is understood that the parameter will require long term chain of impact to realised.

The primary survey indicates that there has been an overall reduction of 2.2 percentage point in incidence of child malnutrition during endline as compared to baseline in the project area. The prevalence of cases of child malnutrition is also 3 percentage point lower as in project area as compared to control area. There has been also a reduction seen in case of girl child malnutrition but an increase in boy's malnutrition.

Caveat: The endline assessment reported less sample of boy children which maybe an inadequate sample to draw any inference for the malnutrition among boys under 5 years of age for this indicator.

Reduction in the prevalence of child malnutrition by gender	Baseline Project	Baseline Control	Endline Project	Endline Control
% reduction child malnutrition - Percentage (%)	49.9[6]	-	47.76	50.77
% reduction child malnutrition - Percentage (%) male	38.5	-	56.25	48.48
% reduction child malnutrition - Percentage (%) female	47.7	-	43.75	51.52

3.3.3 IMPROVED FOOD SECURITY

From the baseline survey it was observed that there were very few instances of family facing food scarcity of not even having two meal a day. Instances of food security among households is measured through primary data collection on household reporting for no such cases of scarcity of availing at least 2 meals a day in last 12 months. The year on year data indicates that there is decrease from baseline to 4th AOS period but however in subsequent years the food secure households have increased. During 6th AOS it has been also indicated that several externalities have been an influencing factor in improving the food

[6] State Average from NFHS Data 2015-16

security. Thefood security has also improved in both project and control samples compared to 5th AOS. Many of the households during qualitative consultation indicated that in the year 2020 Government of Jharkhand had taken several initiatives to ensure timely and advance supply of PDS ration because of which household level food supplies were managed. The doorstep delivery of ration through SHG members for PVTG families have also added an advantage for the families in terms of timely delivery and availability of food for throughout the year.

Project has also made consistent effort in making changes in the food basket for the rural household by providing support in promoting pulses, oilseeds along with cereals, nutrition sensitive cropping practices, animal husbandry activities etc. and in turn providing food security. Over 80-90 percent households overall in the project location have adopted various improved crop production technology such as seed treatment, use of hybrid/ improved seed, multi cropping, line sowing, IPM and INM technology which has given a boost to crop production both in upland and low land areas. Overall yield levels and associated income has increased giving rise to improved consumption like Barbatti cultivation was promoted among the highland areas for the PVTG communities providing them improved food security.

% Household reporting improved food security				
Baseline	4th AOS	5th AOS	6th AOS	Endline
	AOS 2019	AOS 2020	AOS 2021	
99% (Project) - (Control)	88 % (Project) 66% Control)	82.9% (Project) 77.3 (Control)	86.3% (Project) 81.6% (Control)	99.8 (Project) 99.5 (Control)

Table 13: Food Security (Household facing food scarcity)

	Project	Control
Households reporting improved food security	98.82	97.93
N=3023		

Food scarcity was mostly reported during rainy season and cases of food scarcity was lower in treatment areas (1.18) in comparison to control areas (2.07). Majority of food insecure households have faced this situation, but the frequency of such instances become very low.

Table 14: Food Security (Season wise)

	Could Not Provide1MealinaDay			Could Not Provide 2 Meals in a Day		
	Summer	RainySeason	Winter Season	SummerSeason	Rainy Season	WinterSeason
OnlyWomen	1.2	1.6	1.4	0.2	0.2	-
AllAdults(Women&Men)	1.0	1.6	1.4	0.2	0.2	-
WholeFamily(IncludingChildren)	0.7	0.5	0.5	-	-	-

3.3.5 CHANGE IN INCOME

The baseline figure of males and females for income generation activities shows that a large proportion of males (34.9 Goatry, 26.7 Poultry) and females (27.3 Goatry, 21.1 Poultry) prefer animal husbandry as a main source of income. Baseline figure also indicates that a proportion of population 14% and 34%, males and females respectively did not have any activity for income generation. A small proportion of little over 4% males and 0.5% females in baseline reflected that there has been a practice of migration in the year when baseline was conducted. Majority of males and females (83.8% and 81.82%) migrated to other states

for work in rainy and winter season. In rainy season 36% males and 59% females migrated out and winter 52% males and 36% females migrated out. Non agriculture labor was seen as a reason for most of the.

The endline assessment indicated an overall rise in income by 49% from the year recorded in 5th AOS report. A comparison with the overall income levels indicate that there has been an incremental gain of 49% in the overall average income in which a large contribution is from agriculture income and livestock income. The difference-in-difference in each category of the income group when compared with 4th AOS (comparative baseline year) indicates that there has been an improvement in lower income groups to higher income category as a population has moved from lower quartiles of income to higher quartiles.

Caveat: The overall income comparison could not be done from Baseline Report because of different reference range in which income distribution has been done. For comparison purpose the 4th AOS income distribution groups have been considered. The last 3 years AOS have been also included for comparison.

Average Monthly Household Income at Endline					
	1st AOS (2016)		Endline (2021)		DiD
	Project	Control	Project	Control	Percentage change
Below 1700	31.0	39.0	18.1	43.2	-17.1
1700-5000	66.0	60.0	56.2	43	7.2
5001-9000	2.0	1.0	20	11.2	7.8
Above 9000	1.0	0.0	6.1	2.6	2.5

Average Net Annual Income						
	5th AOS (2019)		6th AOS (2020)		Endline (2021)	
	Project	Control	Project	Control	Project	Control
Total Average Income	67,009.7	50,149.8	86,932.7	51,407.1	99,893.1	56955.7

A comparison across year on year income change shows a steady growth in project location. Share of income is largely seen from agriculture as it is also reported to be a primary source of income for 80% of the population. Vegetables grown during rabi seasonhas also been one of the remunerative source of income because of residual moisture retained because of various intervention.

Total Income	Share of Income from different sources Project Area
	Project
Agriculture	53.6
Vegetables	14.4
Livestock	17.7
NTFP	5.5
Fisheries	1.8
MGNREGA	6.9
Total Income	100.0



AREA UNDER VARIOUS CROPS UNDER UPLAND AND LOW LAND

The cultivated area of the state is about 1.8 million ha, comprising 22% of the geographical area. The net irrigated area is about 0.16 million ha, constituting 9.3% of the cultivated area. Being largely rainfed, the state has a cropping intensity of 126%. For higher agriculture production, major constraints of the state are sloping lands with hard rock areas, severe soil erosion, water scarcity, acidic soils, low soil fertility, low input use of agricultural inputs and open grazing in rabi season.

The agriculture description and spread of crops grown in different season indicates that majority of the farmers are doing paddy more in low land area along with other crops such as. The percentage of samples growing pulses has decreased in project as well as control areas. The decrease is however extremely significant in control than in project samples. Many households reported difficulty in pulses cultivation during the end line study because of excessive moisture in field due to unseasonal excessive rain during rabi crops sowing season.

Table 15: Samples growing various crops

Percentage of sample (%)				
	4th AOS		Endline	
Crop	Project	Control	Project	Control
Paddy	99.0	95.0	99.1	98.7
Maize	47.0	26.0	42.1	27.7
Oilseed	37.0	14.0	41.1	28.7
Pulse	52.0	28.0	25.9	9.6
Vegetables	52.0	32.0	48.4	19.1
Other	-	-	7.9	9.2

Figure 3: Average area (Acre) per family under different crops in project samples of 4th AOS and Endline

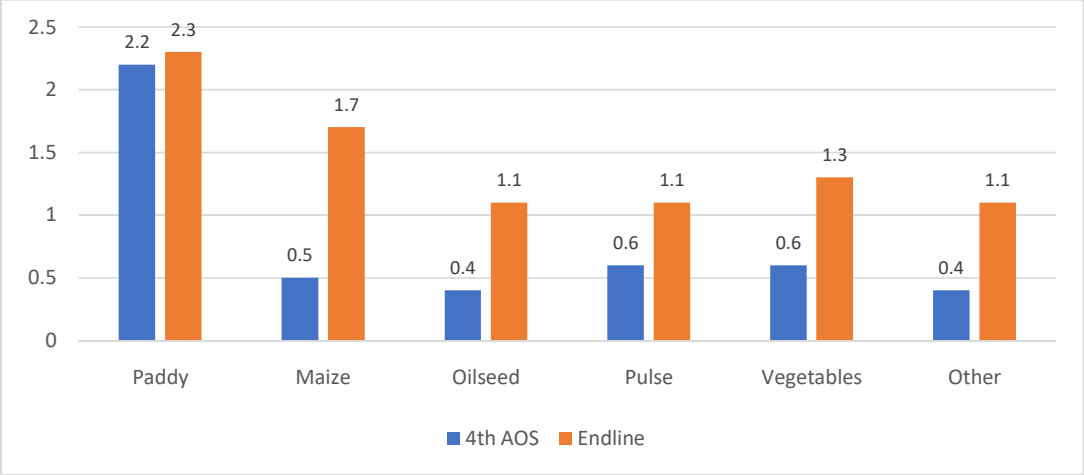
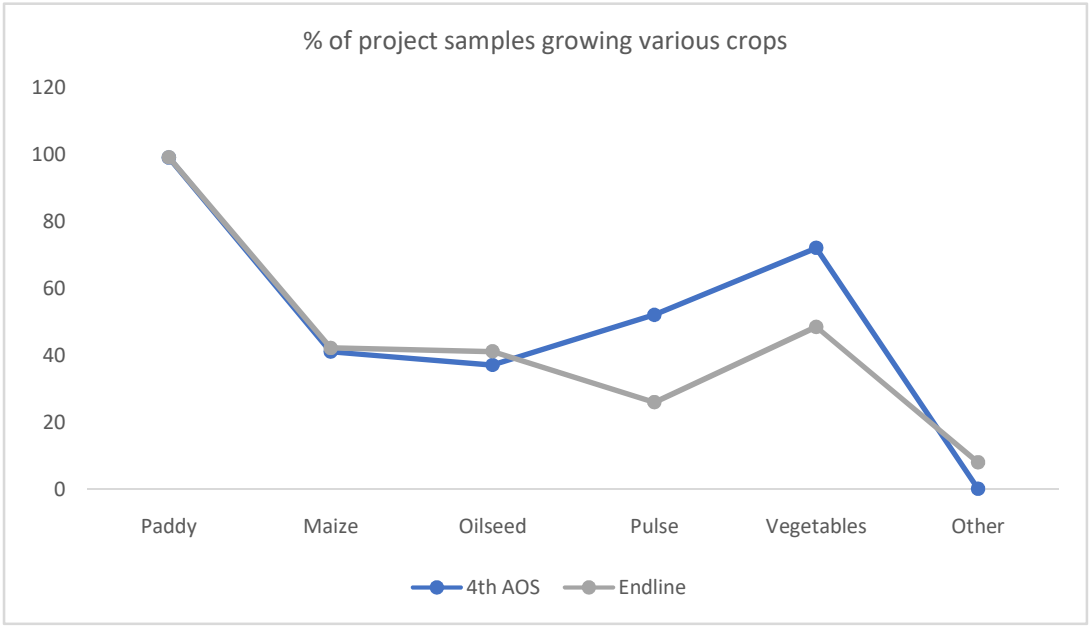


Figure 4: Average area under crops per family (acre) in project samples

The average area under vegetables for the project samples have grown during the Endline and more so in the upland area.The Rabi intensification intervention from the project side has brought out additional benefits for the farmers as the area under vegetables and number of people growing vegetables have increased. The market fetching price for the vegetables is also high because of which there is boost seen in



the upland area
income as compared to low land area. Low land area focus was more on Paddy. Pulses area have also grown which is also a contributing factor. Interventions to introduce new varieties during Rabi season such as JAKI-9218 in Gram, PL-8 variety of Lentil, Horsegram BK-1 were few of the short duration varieties suitable for rainfed conditions that has contributed to improved productivity.

The period of 6th AOS also reported in Jharkhand increasing adoption of vegetable cultivation.

The production of vegetables made up the largest share of the total cropland under cultivation in the Indian state of Jharkhand measuring 298 thousand hectares in fiscal year 2020. The second largest share

of plantation area was taken up by the production of fruits which constituted about 103 thousand hectares that year- Estimated cultivation area of Jharkhand in Financial Year 2020, by crop type (in 1,000 hectares)[7]

The area estimates from the sample indicate an improvement in the gross sown area as compared to the control area.

Gross Shown Area (In Acres)			
Type of land	**Project**	**Control**	**Grand Total**
Upland	1433.35	1044.37	2477.72
Low Land	1833.52	881.7	2715.22
Grand Total	3323.0	1926.1	5249.0
Net Shown Area (In Acres)			
Type of land	**Project**	**Control**	**Grand Total**
Upland	733.6	627.72	1361.4
Low Land	1573	794.9	2367.9
Grand Total	3323.0	1926.1	5249.0

Income generated as a result of various interventions under JTELP like improved agriculture practices, vegetable cultivation, Orchard development, livestock intensification and non-farm income generation activities has resulted in improvement of economic wellbeing of the participant households. In Rangamarti village of Angara block of Ranchi district, around 12-5 farmers purchased two-wheeler vehicle 'Luna' for carrying agriculture produce to the local market.

Case-let: Jinuaka Minz, wife of Hemant Minz, Simdega District

Jinuaka Minz, wife of Hemant Minz residing in Saroo tola in Pithra panchayat of Simdega district is a B.Com graduate and a CRP (Community Resource Person) under the JTELP. Her family owns 10 acres of land – 6 acre medium/low land and 4 acres upland. In medium/low land mainly paddy was cultivated while upland was used for cultivation of millet, short duration paddy, pulses, groundnut and niger. The Minz family used to cultivate paddy on their own in 2 acres of land while other 4 acres used to be put under share cropping. The income generated out of this was not sufficient to meet out the household expenses. So, they purchased an auto rickshaw and her husband used ply auto rickshaw.
With support of JTELP, Jinuka and her husband planted fruit orchard in 1 acre of upland. They also started vegetable cultivation in the space available between the mango plants. This led to improvement in economic condition of the household. Annual expenditure on education of their two children was around Rs.30,000. Their monthly household expenditure is around Rs.5,000. They have also purchased one irrigation pump set and a pair of oxen. Her husband has discontinued the auto rickshaw plying and the auto rickshaw is now being used for carry vegetables to local market.

The cropping intensity in the sample area is about 195.3 percent in upland and 116 percent in lowland area. The project has adopted multiple strategies to undertake crop rabi season intensification. The first effort was to enhance multiple cropping as against mostly mono cropping in the region. Early planning in khariff and introduction of short duration varieties of crop helped farmers in utilising residual moisture for Rabi crop. Apart from this due to concentrated efforts at grassroots the project has also been able to increase the net irrigated area (though own efforts and through convergence with MNEREGA).

[7]https://www.statista.com/statistics/1083076/india-crop-plantation-area-in-jharkhand/

Table 16: Cropping Intensity and Area by Season

Cropping Intensity across upland and low land area (In Acres)		
Cropping Intensity (%) in Upland	195.37	166.38
Cropping Intensity (%) in Low land	116.56	110.92

[Cropping intensity is calculated as = (gross cropped area / net sown area). Gross cropped area is total area cultivated under all the seasons (totalling all cops)]

As can be seen from the figure below, the percentage of surplus production for project samples has increased in case of paddy and maize. The productivity had decreased for paddy in the 5th AOS due to the low rainfall during the 2018 kharif season. In the endline the production has revived to an increasing trend. The productivity remained the same in vegetables and other crops; and decreased in oilseeds and pulses. In the control samples, the productivity has decreased or remained constant for all the crop categories with the exception of other crops.

Table 17: Average Income from Lease out Annually per Household

	Project	Control
Income from Leasing of Land	5350.00	4900.00

Table 18: Average Annual Income from Agriculture (In Rs)

	Project	Control
Average of total input cost	7971.7	6163
Average of total production value	61505.8	35885.3
Total net income	53534.9	29722.4

Income from upland area is higher because of high value crops grown in upland area during Kharif and Rabi. Major crops grown are pulses, oilseeds, spices (Garlic, Ginger), Vegetables (Tomato, Barbatti, Field Pea) and Millets.

Table 19: Average Income from NTFP

	Project	Control	Total
Average income in Summer	1958.825	1182.894	1573.811
Average income in Rainy	1372.686	701.2467	1039.521
Average income in Winter	2198.234	1135.912	1671.114
	5529.74	**3020.05**	**4284.45**

Livestock and Off-Farm Income

Percentage of household doing fish cultivation is very less as compared to last 4th AOS. This could be because the field survey was conducted in January-February months when majority of fish has been harvested and very little harvest was remaining in the pond. The average quantity of fish per family has also decreased sharply and was observed to be only 6.1 Qtls per family i.e. reduced to less than half of that in the 6th AOS. The income gain have been marginal as compared to control sites however there has been an increase in the income observed as compared to control sites.

Table 20: % HH involved in Aquaculture

Row Labels	Project	Control	Grand Total
Yes	4.46%	1.20%	2.84%
No	95.54%	98.80%	97.16%
Grand Total	**100.00%**	**100.00%**	**100.00%**

Table 21: Average Income from Aquaculture

	Project	Control	Grand Total
Average Income	15988.87	14277.78	15630.8

Project has provided support for promoting pisciculture activities. They have provided stockings for fingerlings, stockings and Hatchery and provided training for Hatchery beneficiaries. Although the percentage of farmers doing the activity is low, however the average income seems to be higher than that of the control location.

Table 22: % HH involved in Bee Keeping

	Project	Control	Grand Total
Yes	1.31%	1.53%	1.42%
No	98.69%	98.47%	98.58%
Grand Total	**100.00%**	**100.00%**	**100.00%**

Table 23: Average Income from Bee Keeping

	Project	Control	Grand Total
Income	**18000.00**	**18913.04**	**18488.37**

Mushroom cultivation was indicated as a remunerative source of income. On consultation with farmers in Saraikela, Ranchi and Lohardaga, good cultivation of mushroom was reported by most of the farmers. In Suryaposi village of Saraikela, there were 8 farmers who were engaged in mushroom cultivation.

Table 24: Average Income from Mushroom cultivation

	Project	Control	Grand Total
Income	20119.05	18888.89	19637.68

Table 25: % HH involved in Mushroom cultivation

	Project	Control	Grand Total
Yes	2.76%	1.80%	2.28%
No	97.24%	98.20%	97.72%
Grand Total	**100.00%**	**100.00%**	**100.00%**

Table 26: % HH involved in NTFP collection

	Project	Control	Grand Total
Yes	30.93%	16.93%	23.98%
No	69.07%	83.07%	76.02%
Grand Total	**100.00%**	**100.00%**	**100.00%**

The increasing trend in livestock ownership continued as 67 percent of the project sample have reported owning livestock Endline. Livestock support provided under the JTELP might have contributed to the above increase. A higher percentage are seen to be owning goatry and poultry.

Table 27: % HH owning Livestock (Endline)

	Owning	
	Project	Control

Bull	35.19%	21.93%
Cow	26.33%	17.87%
Buffalo (She)	2.63%	1.20%
Buffalo (He)	1.38%	0.80%
Calf	5.65%	4.73%
Goat/Sheep	46.95%	35.47%
Duck	4.46%	2.67%
Pig	19.83%	8.87%
Hours/Donkey	0.39%	0.27%
Poultry	37.56%	26.60%
Fish	0.92%	0.40%

Overall there has been an improvement in the ownership of livestock. AOS report 2016 indicate that initially there were only 5% people who were involved in livestock activity and 4% livestock owner reported increases in income from livestock. The endline assessment indicates an improvement in the average ownership of livestock with about 30% of the income share from animal husbandry activities. The average herd size is 4 for Piggery, Goatry average Herd Size 5 for Poultry average herd size 18.

It was found to be in sync with more proportion of project farmers reporting livestock production as their secondary occupation as explained in a previous section.

Table 28: % HH generated income from Livestock

	Project	Control	Grand Total
Yes	30.93%	15.53%	23.29%
No	69.07%	84.47%	76.71%
Grand Total	**100.00%**	**100.00%**	**100.00%**

Table 29: Average Income from Livestock

	Project	Control
Overall Income from Livestock	17701.92	7881.25
Income from Piggery	12100	5617
Goatry	6288	4100
Poultry (Annual)	5198	3254

Success story

Smt. Kalawati Devi is member of Maa Gaytri Self Help Group, Semrahat tola, Mael, Manika, Latehar. She received goat rearing unit under JTELP project. She received 4 does. Later one doe become lame, so she sold her and purchased another doe. In last 3 years, 4 does gave birth to 12 kids in 3 years. Out of 12 kids, 1 died, 1 used for HH consumption, 1 killed by dog, 4 bucks were sold in market, 3 does are being reared and 2 are kids. 4 bucks were sold for Rs.45,000. 1 pregnant buck is expected to give birth of 2 kids by the end of March month. Smt. Kalawati is expecting to earn around Rs.25,000 – 30,000 every year by selling ready goat.

Kalawti's family also cultivates various crops during kharif and rabi season. Last year family cultivated maize, paddy, sesame, pigeon pea, wheat, mustard and vegetables. Most of the produce is consumed in home and only surplus is sold. Last year family sold 8 quintals of maize, 12 quintals of paddy and 1.6 quintal of sesame. Family earned around Rs.30,000 by selling these agri produce.



The gross margins from piggery activities have appeared to be higher compared to goatry and poultry activities. The gross margin is in the range of Rs 1 lakh and hence in locations where it is conducive it may be promoted. The data is from selected case study and not from sample survey.

Economics of goat rearing

Based on discussion with the farmers, annual economics of goat (Black Bengal breed) rearing for herd size of 4 doe and 1 buck was as follow:

Particular	Description	Amount
Revenue		
Castrated male goat	2 goats of 20 Kg average body live weight @ Rs. 300/Kg	12,000
Female goat	2 goats of 15 Kg average body live weight @ Rs. 200/Kg	6,000
	Subtotal	**18,000**
Costs		
Mineral mixture and feed supplement	Rs.5 per goat per day (for 365 days)	7,000
De-worming and vaccination	Rs. 10 per goat semi-annually	100
	Subtotal	**7,100**
Other (misc.)		900
Total cost		**8,000**
Gross margin		**10,000**

Economics of poultry

Based on discussion with the farmers, economics of backyard poultry of deshi/Asil breed for herd size of 50 birds was calculated.

Particular	Description	Amount
Sale of cock	2 Kg live weight, 20 birds @ Rs.350 per Kg	14,000
Egg (50% of eggs produced)	700 eggs/year @ Rs.7 per egg	5,000
Egg (50% of eggs produced)	500 chicks/year @ Rs.50 per chicks	25,000
Old hen	2 Kg live weight, 20 birds @ Rs.250 per Kg	10,000
	Subtotal	**54,000**
Costs		
Chicks	50 chicks @ Rs.50 per chicks	2500
Mineral mixture and feed supplement	Rs.50 per day for 50 birds	1,8250
De-worming and vaccination	Rs. 8 per goat quarterly in a year	750
	Subtotal	**21,500**
Gross margin		**32,500**

Economics of piggery

Based on discussion with the farmers, economics of pig rearing of a T&D breed for a year was calculated.

Particular	Description	Amount
Revenue		
Pig	60 Kg live weight @ Rs.100 per Kg	6,000
Piglets	20 Kg live weight @ Rs.200 per Kg (8 piglets per pig, 4 pigs)	1,28,000
	Total	**1,34,000**
Costs		
Mineral mixture and feed supplement	Rs.15 per pig per day for 5 pigs	27,000
De-worming and vaccination	Rs.100 per pig for 5 pigs and 32 piglets	3700
	Total	**30,700**
Gross margin		**1,04,000**

Proportion of household involved in business activities is about 16 percent in treatment area as compared to control sites. Income gains are also higher in project sites as compared to control locations.

Table 30: % HH involved in any family business activity

	Project	Control	Grand Total
Yes	16.81%	11.20%	14.03%
No	83.19%	88.80%	85.97%
Grand Total	**100.00%**	**100.00%**	**100.00%**

Table 31: Availability of business and Net income

	Availability of Business (Months)		Net total income (INR)	
	Project	Control	Project	Control
Summer	3.6	2.9	10294.82	9739.41
Winter	2.1	2.5	3966.85	5240.7
Rainy	1.7	1.4	3500.1	3195.53

3.3.6 WOMEN EMPOWERMENT

SHGs members in Simdega reported that they were able to earn Rs.1,200 - 1,500 per week from vegetable cultivation. Usually, they visit local haats on auto rickshaw. Similarly, A group of 5-6 women regularly visit to Kokar market in Ranchi to sell green vegetables and sal leaf products. Rearing of poultry birds, duck, pig and goat were mostly managed by the women. However, men folk played major role in selling decision whenever they were available around.

3.3.7 YOUTH BENEFITS

The youth members participated in various governance forums and also participated in IGA activities People from NGO first approached form a youth group and they also discussed about the benefits of the youth group in terms of grant and livelihood support.

Benefits of being a member of YG	Contribution in quality of life
Received Rs. 40000 as seed money and Rs. 25000 additional seed fund from Mukhyamantri Seed capital fund. The fund helped youth to restart a village weekly haat on Thursday in their village. This helped all youth to start at least one income generating activity.	The seed capital was utilized in loan for petty income generating activities such as shoe chappal making, photocopy machine, computer, ready-made garments selling, jhalmurhi selling and poultry farming. The earning from the activity ensured income of Rs. 5000 to 10000 per month by an individual youth.

The project has been able to cover and connect nearly half of the population of Youth through youth groups. Overall 74 percent of them expressed their satisfaction of being part of the groups and being able to do various income generation activities.

Table 32: Youth groups enrollment and satisfaction

	Dumka	East Singhbhum	Godda	Gumla	Jamtara	Khunti	Latehar	Lohardaga	Pakur	Ranchi	Sahibganj	Saraikela	Simdega	W Singhbhum	Grand Total
% of youth enrolled in YG	54.1	45.3	43.2	40.7	45.3	40.4	44.6	32.6	43.6	49.3	42.0	49.2	46.7	36.0	43.9
Satisfied with activities	13	17	14	18	17	14	18	11	13	28	15	23	21	15	237
% of youth satisfied with YG	65.0	70.8	73.7	75.0	70.8	73.7	72.0	73.3	76.5	82.4	71.4	74.2	75.0	83.3	74.3

Those who were dissatisfied primarily expected training and linkages with government and information on market so that they can sell their products in other places for those who are doing enterprise level activities. The activity has its limited scope due to marketing locally, if it can be sold in other places of Jharkhand or the country.

3.5 PROJECT IMPACTS

3.5.1 Improved People Participation in Community Institution

Various types of community institutions have been promoted under the projects such as SHGs, Youth clubs, Kisan club, Village Development Committees, GSPEC etc. The highest participation of project sample was observed in Producer Groups (18.1 percent), Youth groups of JTELP (47 percent) followed by livestock groups (10.9 percent) while this proportion was almost negligible in the control sample. The proportion has also increased in comparison to the 5th AOS for all the three groups. The proportion of sample who do not have membership in any group is 35.3 percent in control group whereas it is only 5 percent in project group.

The efforts of the project to encourage participation in different groups is thus evident from the increasing proportion of the sample being part of community institutions in the project area.**GSPEC as an institution have been found very actively involved in various developmental activities.**

Julban Jarika one of the member of GSPEC cultivated tomato in summer season after availability of irrigation facility through irrigation well excavated under the project. However it was difficult for him to cultivate tomato in summer season as it requires lot of irrigation. After pumset distributed to GSPEV, he planned for tomato cultivation in his small plot of land of half an acre. He received seeds from National Seed Corporation through JTDS. He planted the seeds as per the instruction of ATMA. The seed was of very good variety and plants grown well. He provided irrigation during summer 8 times with the help of irrigation pump set. For each irrigation he used to purchase 1 litre of petrol which costed him around Rs. 800/. The production was very good and he sold 125 Kg of tomato at the rate of Rs. 20 per KG worth Rs. 25000/-. However it was very difficult since every day one person of his family has to watch the crop and take care of village animals such as goat, cow and pigs which is kept free in the summer season.

Community Participation

All 39 project villages have GSPEC (Gram Sabha Project Execution Committee). Community participation was ensured right from planning to execution of work and payment settlement. Project implementation team (field NGO) mobilized the village communities as Gramsabha and constituted Gram Sabha Project Execution Committee (GSPEC). Participation of women was ensured. Community head (Gram Pradhan) of traditional gramsabha was given responsibility of chairman of the GSPEC.

Rs.1000 per month was provided to GSPEC to meet travelling and other out of pocket expenses related to banking and other administrative works.

- GSPEC meetings are held on monthly basis. At village level, the project activities were selected by the Gramsabha and implemented by the GSPEC. Fund flow from District Project Management Unit (DPMU) to GSPEC and all sorts of project related payment were done by GSPEC after approval from Gram Sabha. GSPEC has very limited role in on going government projects like MGNREGA.

VDF

A Village Development Fund (VDF) was created in every project village and a onetime grant of Rs.1.25 Lakhs was provided from the project. In addition to one time grant from project, 10% of labour cost from INRM activities was contributed to VDF by the community.

VDF is being used as a corpus. It is being used to meet out emergency need of the community members. Generally VDF charges 2% monthly interest on the loan amount and repayment is done in instalment. VDF book keeping is done by office bearer; there is no practice of external audit of accounts. VDFs in PVTG dominated villages were provided double of the amount i.e. Rs.2.50 lakhs as seed fund. Villages with more than 70% population of PVTG communities were classified as PVTG villages.

Youth Groups

There are separate groups of young boys and girls. Group meetings are conducted on fortnightly interval. The youth groups have been linked with Nehru Yuva Kendra Sangathan (NYKS). The seed fund is being used for Income generation activities such as installation of rice huller, sewing machine, tent house

opening, provisional store, duck rearing etc. The income generated from such activities is further being used for proliferation of other individual level small income generation activities.
Youth groups in Latehar district has purchased 8 trolley mounted movable rice hullers. Girls groups has installed sewing machine. However, limited time availability due to college study hour and maintaining uniformity of the group (as members leave the group due to marriage to another village) were a major challenge before the group. YGs were willing to continue weekly saving for further strengthening of the group and increasing the corpus money. The groups were vibrant and executed various voluntary developmental activities of village apart from engagement in income generation activities

Kishori Group

Ujala Kishori Group of village Mael, Manika, Latehar members are doing weekly saving which is being used for meeting day to day needs of group members mainly related to education and other training. In September 2021, group purchased a sewing machine using Rs.4,500 out of the seed fund.
Machine is in functional and being used by trained member for sewing blouse, petticoat and suit at the rate of Rs.100, Rs.100 and Rs.250 respectively. From this, they are able to earn average monthly income of Rs.800. They also save out of the income generated through the stitching work. The bigger challenge for them is to maintain uniformity of the group as members leave the group due to marriage to another village. Group is expecting to get bulk order from the market for suit stitching which is currently not happening.
Also, Rs. 5,500 was used for celebration of *Mahila Diwas* by the group members. They also received training on commodity trading during December month and are eager to do trading of *Mahau*flower.

Shiv Youth Groupof village Mael, Manika, Latehar purchased diesel fuel (10HP) based rice hulling machine by investing Rs.11,200 under the scheme implemented by ATMA. Machine was being used for rice hulling at a service charge of Rs.120 per quintal. Out of which, Rs.30 per quintal is paid to operator who is one of the member and rest is deposited in group corpus. After receiving training on business plan preparation for enterprise development, group has got confidence and planning to start new business like Mahuwa trading in upcoming season. For trading business, Rs.40,000 out of the corpus has been allocated for working capital. However, group faced difficulty in on time decision making and banking transaction as many of the group members have migrated.

Group fund is also being used by members for initiating micro enterprises. One of the members of the Shiv Youth Group of village Mael, Manika, Latehar took loan of Rs.10,0000 from group for duck rearing. He purchased 100 ducklings at the rate of Rs.40 per duckling. 15 ducklings died in rearing process. After 5 months he sold 30 ducks at the rate of Rs.400 per duck and earned Rs.12,000. Another 55 ducks are live which will be sold later on or reared for egg.
The same member have adopted vegetable cultivation as an enterprise and earned a good some of money last year from vegetables cultivation using the seed provided under the project. This year also he cultivated the same vegetable crops by purchasing seed from market and earning good amount.

SHG

Formation and nurturing of women Self-Help Groups (SHGs) was one the important component of the JTELP. Women from every household of the beneficiary households were mobilized into SHG folders. For formation of SHGs, saturation/ universalization approach was followed. From 2018 onward, SHGs were integrated with NRLM program and for last 2-3 years, SHG are being facilitated by JSLPS. According to members, attendance of the members in SHG meetings is very good. Most of the SHGs received revolving fund grant from JSLPS and are part of village level SHG federation (Gram Sangathan/VO) and cluster federations. Loans are availed mainly for farming, goat rearing, education, health and house construction work. Loans are repaid on time and defaulters are negligible.

Most of the SHG members have active bank account and are doing regular saving. SHG members have participated in various trainings related to SHG management and leadership; agriculture - crop PoP, cultivation practices, vegetable cultivation, improved composting method, homemade formulations for insect, pest control and soil fertility management; livestock - goat rearing & poultry, piggery; bee keeping, mushroom cultivation etc. Book-keeping training was provided to SHG leaders –president, secretary and treasurer.

Members of the SHGs in Ranchi, Latehar and Saraikela reported to have skill set for making leaf plate and cup (dona) and wish to get engaged in plate making activities on commercial scale.
However, getting quality leaf round the year is a big challenge due to seasonal fall of leaf and height of trees.

Mael is part of goat cluster. There are 50 goat sheds in the village out of which 30 sheds are in Semrahat tola. Out of the 30 goat units, 25 HHs have continued goat rearing activities. One of the SHG group – Maha Laxmi Self Help Group did fish rearing in community/government pond in one season. After seeing the success, some male group took the pond in bidding process. Another SHG group – Chetna Self Help Group cultivated Tulsi leaf in group farming. The seed cost Rs.50 and leaf was sold for Rs.5,000. Group members were hot happy with the rate offered for the leaf. SHG members have learnt vegetable cultivation; however, vegetable cultivation is limited in kharif and rabi season. In summer only 4-5 members cultivate vegetables. SHG member reported that village lack irrigation facility and irrigation well have very limited water in summer which could irrigate around 40-50 decimal crop.

As reported by the SHG members, Semrahat tola have limited access to drinking water as there is only handpump for 30-35 HHs. And women have to wait for getting their turn to fetch water.

For last 2-3 years, SHG are being facilitated by JSLPS. All most all SHGs have been integrated with JSLPS program. According to members, there is good attendance of the members in SHG meetings and defaulters are negligible. Most of the SHG have received revolving fund grant (Rs.15,000) and are part of village level SHG federation (Gram Sangathan/VO) and regularly participating in Gram Sangathan meetings. Group members have received training on SHG panch sutras, group management and leadership. Loans are availed mainly for farming, goat rearing, education, health and house construction work. Most of the SHG members have active bank account and more than 50% members are doing regular saving. Spouse also support women for saving and SHG activities as both of them feel needs of SHG support.

Kundruhatu GSPEC – Transformation of traditional village body into GSPEC



Kundruhatu village in Barkuchiya gram panchyat under Khuntpanni block of West Signhbhum district under Kolhan division of Jharkhan is 43 kms far from district headquarter Chaibasa inhabited by mainly " Ho" tribe besides few schedule castes such as Tanti, Gope and Kumhar. 170 odd families of the village speak mainly Ho language but Hindi and Odiya are also used in the village for internal communication between two communities.

Traditionally all Ho dominated villages have their own gram sabha called HATU DUNUB" comprises of "Munda", "Dakua" and "Deori". Munda worked as a President or Gram Pradhan while the Dakua, assistant of Munda used to conduct village meetings by providing information to all villagers about the agenda of the meeting, discussion and final decision of Gram sabha. Deori is basically Pujari of the village deity and acted as village Sarpanch by resolving matters related to community conflict or petty crimes in the village. These three leaders are not elected democratically but leadership gets transferred automatically from father to son. Male from each household of the village was supposed to be member of the gram sabha. The major function of such traditional gram sabha was to :

1. Collect revenue
2. Declare non grazing period to protect village crops
3. Fixation of dates of festivals and marriages
4. Judgement on internal conflict/crime

The major drawback with such traditional gram sabha was lack of information on government implemented village schemes and formal recognition by the government officials. Though such traditional system of Gram Sabh still exists in all tribal villages but most of them are not functional after introduction of panchayati raj act but the traditional leaders still hold prestige and quiet popular in the community. In fact some of the decisions taken by functional traditional gram sabha still holds value and acceptable to all communities of the village. Most of such traditional gram sabha are now defunct due to various reasons but irregular meeting of gram sabha, lack of interest in attending meeting and internal conflict among the villagers are some of the reasons. While area of the elected gram panchayat comprises of 6-8 villages, it is difficult to organise gram sabha/ward sabha meeting in a particular village having less population also most of the PRI representatives are not very keen in village issues but they are busy in execution of various government schemes as an extended hand of government. In the process the petty issues of villages are not resolved on time. In the context the role of traditional gram sabha is very important.
After launch of JTELP, the Hatu Dunub was revived with following new introductions:

1. All members of the village above 18 years old including women were provided membership of the gram sabha
2. It was decided that every gram sabha will organise monthly meeting
3. Meeting of the gram sabha has to be recorded and minutes of meeting will be kept readily available for all the members.
4. It was made mandatory to attend monthly meeting by at least one member of a family.
5. Apart from the existing village issues, the development issue became the core agenda in the meeting of Gram Sabha.
6. Gram Sabh was entrusted responsibility of the selection of beneficiaries under JTELP project and the minute of Gram Sabha meeting was made compulsory for the release of fund from JTDS.
7. The Gram Sabha was made responsible for the monitoring and supervision of the various activities under JTELP.
8. An executive committee of the gram sabha was constituted for execution of various schemes under JTELP which has been called as Gram Sabha Project Execution Committee (GSPEC)

The GSPEC, Kundruhatu was organised in the year 2018 after revival of traditional gram sabha with 13 members headed by Pradhan while Secretary and Treasure were selected from the members. There are two women members in the GSPEC. The other members are representative of various tolas of village elected or selected by the members. As envisaged, the major function of the GSPEC was to make village plan for irrigation and livelihood as per the need and execute the same with financial support from JTELP. After village planning, JTELP transfered the required fund in instalments in their ban account, Therefore a bank account on the name of GSPEC was opened in Bank of India branch, Chaibassa with joint signature of President, Secretary and Treasurer with compulsory signature of President.
The designaed member of the GSPEC were provided training on GSPEC management and book keeping, Monthly meeting were organised timely with minute of every meeting. The members of the GSPEC were provided training on how to prepare village plan focussing on irrigation, agriculture and livestock and livelihood. They were also assigned to mobilise villagers for formation of SHG and YG. As on outcome one SHG and one YG was formed in the village with representation of women and youth respectively.

As of now the following activities has been taken up by the GSPEC, Kundrahatu1[8]:

Sl no	Activity	Numbers	Number of beneficiaries
1	Pond Excavation	1	30 families
2	Swallow irrigation well	5	64 families
3	Irrigation well	1	14 families
4	Poultry shed	1 shed with totl 60 chicks in an interval of 6 months	Village SHG
5	Dishum Guru Poshan Vatika	25 unit	25 families
6	Rabi, Kharif, Zaid training, seed and fertiliser	Paddy -71.4 acre, Pulse and oil seed 30.2 acre	156 famiies
7	Village development Fund	Rs. 1.25 Lakh	170 families (whole village)

No doubt, it is a big step forward to revive the traditional gram sabha with a new introduction such as 50 percent representative of women, record keeping and regular meeting. In fact the training and scheme based grant made the defunct gram sabha active which contributed a lot to the success of the JTELP. The site of irrigation facility, design and cost of schemes planned by the GSPEC with the help of JTDS is admirable. It was observed during field visit that the cost of irrigation well is much below than the cost incurred under MGNREGA for the same specification of irrigation well. Location of irrigation well is also near to the water source and in low land so that the water presentation capacity of well is better and available throughout the year.

The crop seed distribution and training on pulse, oil seeds and vegetables found an impact on the beneficiaries. As per the discussion with the beneficiaries, it was found that the training and seed distribution helped majority of the famers to earn an additional income in Rabi and Zaid crop. Since irrigation water is available throughout the year, they shifted to vegetable crops such as tomato, brinjal, beans, potato as cash crop, However the free grazing of animals during summer has reduced the number of famers for zaid crops. Moreover the free seeds and fertilisers provided by the JTDS are also not happening since last one year.

It was also observed during meeting the GSPEC members that the utilisation of village development fund is yet to be practiced by the GSPEC. The village development fund is still lying in their bank account and members of the GSPEC are not well aware about the usage of VDF. Some of the irrigation pump sets provided by the JTDS needs repairing but that has not been repaired because there is no instruction from the JTDS on how to utilise the village development fund.

Despite few challenges, GSPEC have been proved to be a very strong and vibrant village level community organisation which needs further support in terms of linkages from other departments. For example the ATMA could work with GSPEC for testing of seed, technical knowhow, demonstration plot of seed and vegetables etc., Similarly there is need to provide skill development to the youth and women of the village in collaboration with RSETTI. The animal husbandry department and fishery could be linked with these GSPEC for further training, exposure, raw materials etc. The linkage with industry department could have been one step further towards entrepreneurship development of youth and better linkage with GSPEC and youth group could have been established during the project period of JTELP.

3.5.1 Reduction in Out Migration

High level of migration is one of the biggest developmental challenges in project area. Periodic drought along with underdeveloped irrigation facilities and pressure due to activities of left wing extremists are the main reasons behind the high rates of migration. The deprived families along with women and children migrates to work in brick kilns of neighbouring states like Bihar, Uttar Pradesh, Chhatishgarh and West Bengal during brick making season. Youth groups migrate to big and metro cities where they workas unskilled labourer in construction, house-keeping, sand mining etc.

During field survey in Mael, Manika, Latehar, it was reported that around 75-90 person have migrated to Maharashtra to work in sand mining as labourers where they earn around Rs.400 to 500 in a day. An equal

[8]As data provided by DPMU, West Singhbhum

number of youth have migrated to Banglore and other cities in South India where they work in factories and other places for cleaning and other similar activities.

During field survey in Mael, Manika, Latehar, it was reported that members from majority of the HHs (200-300) had migrated to brick making units, mostly located in Varanasi and surrounding areas. There is also a system of distribution of money from bricks' contractor in the village as work advance (dadan) which gets deducted from their payment. During field survey in Mael, Manika, Latehar, it was reported there are three such contractors active in the village.

Table 33: Migrated During Last 1 Year (Male)

	Baseline			End line		
Classification	Migrated During Last 1 Year (Male)					
	n	%	N	n	%	N
Gumla	44	14.15	311	27	9.12	296
Khunti	15	4.53	331	17	6.14	277
Latehar	23	7.77	296	18	5.79	311
Lohardaga	3	1.06	284	9	3.13	288
Ranchi	2	0.63	319	1	0.28	359
Simdega	2	0.71	282	2	0.71	283
Dumka	8	2.84	282	11	3.32	331
Godda	14	4.86	288	8	3.03	264
Jamtara	26	9.39	277	18	5.77	312
Pakur	18	6.36	283	24	8.30	289
Sahibganj	10	3.8	263	3	1.00	299
E.Singhbhum	1	0.37	267	9	3.42	263
Saraikela	3	0.73	413	8	2.23	358
W.Singhbhum	10	2.61	383	7	2.06	340
Overall	**179**	**4.18**	**4279**	**162**	**3.88**	**4270**
Project	103	4.84%		88	3.8%	
Control	76	3.54%		74	3.1%	

Table 34: Duration of Migration

Classification	Baseline Male		Endline Male	
	n	%	n	%
Upto 1 Month	12	6.7	21	12.96
Upto 2 Months	20	11.17	23	14.20
Upto 3 Months	19	10.61	20	12.35
Upto 4 Months	26	14.53	21	12.96
Upto 5 Months	60	33.52	42	25.93
Upto 6 Months	42	23.46	35	21.60
Total	179	100	162	100

Table 35: Migrated During Last 1 Year (Female)

	Migrated During Last 1 Year (Female)					
Classification	Baseline			End line		
	n	%	N	n	%	N
Gumla	6	1.86	323	4	1.41	284
Khunti	2	0.61	329	5	1.64	305

Latehar	0	0	292	1	0.35	282
Lohardaga	2	0.64	311	0	0.00	296
Ranchi	0	0	329	2	0.69	291
Simdega	0	0	294	1	0.31	319
Dumka	0	0	284	0	0.00	289
Godda	0	0	291	0	0.00	308
Jamtara	5	1.68	297	1	0.35	286
Pakur	4	1.4	286	3	1.09	276
Sahibganj	0	0	290	0	0.00	282
E.Singhbhum	2	0.75	267	0	0.00	281
Saraikela	0	0	411	1	0.26	378
W.Singhbhum	1	0.26	380	0	0.00	347
Overall	**22**	**0.5**	**4384**	**18**	**0.44**	**4224**
Project	10	0.46		9	0.38	
Control	12	0.54		9	0.42	

5. CONCLUSION

The project has done tremendous effort to give a 360 degree support where in interventions in many forms were interlinked to each other to give a holistic approach. There were many approaches which were experimented in the initial years and were upscaled based on its learning.

JTELP was implemented in TSP blocks of the TSP districts. Villages with more than 90% of ST population were selected under the project. As majority of the population belongs to tribal communities, project implementation followed saturation mode, specifically for the implementation of group based activities.

The participatory approach was apt in deciding targeted interventions. Most of the interventions were decided as per the need of village through village planning. The willingness and interest of households and provision under project are also considered before planning and implementation of village plan. The micro loan helped members of SHG and YG for the traditional activities such as piggery, goatery an poultry. Majority of the members of SHG and YG has been involved in the agricultural activities mainly in Rabi and Zaid crops.

In the initial years the focus was on developing vegetable clusters, communities were provided both seed and technological support. While the production potential increased which is evident from the productivity increase but it could not be pushed for sale because of limited marketing linkages. Vegetables like barbatti, cucumber, kaddu, watermelon, Arhar, Mung etc were promoted. The production of such crops increased by 15-20 percent. Also because of communities requirement and focus on food grains, the approach was shifted to food grains production and technology enhancement in subsequent years.

The Covid-19 scenario in the Year 2020 and continued impact in the year 2021 as well, has brought out the necessity of strengthening localised economy and sector specific approaches. The state government on their strategy had launched in last year several programmes such as *Birsa Harit Gram Yojna, Neelambar Pitambar Jal Sammridhi Yojana, and Poto Ho Khel Vikas Yojana* that focussed on generating around 25 crore person days under Birsa Harit Gramin Yojna, over two lakh acres land to be used for afforestation, provision of five lakh families for fruit-bearing plants.

JTELP seemed to have added a significant value in the project region by strengthening the diversified income sources for the tribal households however, some of the areas would need further strengthening and support.

It has been observed that there has been an attributable income change possible because of reducing expenditures and self-consumption in the year 2020. However, there has been an increase in livestock ownership and because of the dominating tribal population a higher proportion is already into NTFP sale as a major source of income. It would be essential to build on these sectors for enhanced contribution in income enhancement such as animal husbandry, MGNREGA and forest produce sale and value addition.

Greater extension support in ensuring 100% coverage of job card ownership, availability and access to wage work, and increase in average day's work in the year for the household has to be improved post covid-19 scenario.

Overall project participation seemed to be very encouraging in the project region as more than 73 percent of the household are now part of various institution, 43 percent of the total youth are part of youth groups and 73 percent of them are satisfied with the youth interventions.

The Gram Sabha Execution Committee (GSPEC) has been formed in the villages and has emerged as a strong institution where construction activities has been implemented. The SHGs are handed over to JSLPS and it has been managed by them through their well designed system of project monitoring. Initially youth group were formed by the CRP hired by the FNGO but now they have been managing their youth group themselves.

The GSPEC comprises of members like traditional village pradhan, youth, women and the plan prepared by the GSPEC has to go through the Gram Panchayat so there is synergy between the gram panchayat body and GSPEC. However the SHG and Youth group does not have any relation with the Gram Panchayat and the synergy is yet to be developed.

No skill development training was provided except few of youth members received training on poultry and they have been engaged in the activity. However poultry has chance of loss due to disease and that is why they are not confident to do it in a large unit. Skill training and linkages with government and information on market are needed so that the groups can sell the products in different markets.

LOG FRAME- SUMMARY OF OUTCOMES

ANNEXURE 2: DATA TABLES