

Economic Viability of Underground Pipeline Irrigation System Projects in Punjab: Evidences from Randomized Control Trials

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Annexure – 1

ICAR-Indian Institute of Soil and Water Conservation Research Centre, Chandigarh UGPS DATA SCHEDULE FOR CONSULTANCY ON Benefit-Cost Analysis of UGPS Projects based on Randomized Control Trial (RCT), Soil and Water Conservation Department, Punjab

Name of the Scheme under which UGPS were installed: _____

Source of water for which UGPS were installed (Put ☒): Tubewell / Canal Location District: _____

Sub-division: _____

Number of projects (if canal is water source) / farmers (if tubewells are water source) undertaken in the scheme at the location: _____

Date from which UGPS started functioning at the location: Month _____ Year _____

Total Benefitted Area from the UGPS at the location (acre): _____

List of All Beneficiaries of the UGPS

S. N o.	Name with Father's Name	Caste	Size of holding (acre)	Farmer's land holding area within project area (if canal) / tubewell comm and area (acre)	Area actually benefited by the farmer from the UGPS (acre)	Occupation (Farming / Labour / Business / Service / Other)*			Agricultural production activities (crops, livestock, fruits etc.)	Village
						Main	Secondary	Tertiary		

*Occupation: Farming=1, Labour=2, Business=3, Service=4, Other (specify)=5

List of Non-Beneficiaries (Control) at the UGPS Location

S. N o.	Name with Father's Name	Caste	Size of holding (acre)	Occupation (Farming / Labour / Business / Service / Other)*			Agricultural production activities (crops, livestock, fruits etc.)	Village
				Main	Secondary	Tertiary		

*Occupation: Farming=1, Labour=2, Business=3, Service=4, Other (specify)=5

ICAR-Indian Institute of Soil and Water Conservation Research Centre, Chandigarh
BENEFICIARY UGPS DATA SCHEDULE FOR CONSULTANCY ON
Benefit-Cost Analysis of UGPS Projects based on Randomized Control Trial (RCT),
Soil and Water Conservation Department, Punjab

1. Beneficiary Sr. No: _____ 2. Date of Interview: _____

3. Name of Head of Household: _____ Mobile Number: _____

4. Name of the Respondent: _____ Mobile Number: _____

Respondent should not be a temporary visitor to the household

5. Total Benefitted Area of the Beneficiary from the UGPS (acre): _____

6. Cost of UGPS pipes

S. No.	Pipe type (RCC / PVC)	Diameter of pipe (mm)	Pipe length (m)	Pipe cost (Rs.)
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1.

2.

7. UGPS Laying total cost (Rs): _____

8. Subsidy: (%) _____ worth (Rs) _____ (covering cash and kind)

9. Actual total cost incurred by beneficiary for the

UGPS **after subsidy deduction** (Rs): _____

10. Date from which the UGPS started functioning: Month _____ Year _____

11. Maintenance cost, if any (Rs/year): _____

12. Beneficiary/Control (Put ☒) Sr. No: _____ 13. Date of Interview: _____

14. Name of Head of Household: _____ Mobile Number: _____

15. Name of the Respondent: _____ Mobile Number: _____

Respondent should not be a temporary visitor to the household

16. Total Irrigated Area from owned Tubewell (acre): Before Project: _____

After Project: _____

17. Total Cost of Tubewell at the time of tubewell's installation (Rs) _____

18. Year of installation of Tubewell _____ 19. Present Maintenance cost (Rs/year): _____

20. Total Irrigated Area from Canal (acre): Before Project: _____ After Project: _____

21. Present Maintenance cost of Non-UGPS water conveyance channel (Rs/year): _____

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BENEFICIARY & CONTROL INTERVIEW SCHEDULE FOR CONSULTANCY ON

Benefit-Cost Analysis of UGPS Projects based on Randomized Control Trial (RCT),

Soil and Water Conservation Department, Punjab

1. Type of Respondent (Put ☒): Beneficiary / Control
2. Beneficiary / Control Sr. No: _____ 3. Date of Interview: _____
4. Name of Head of Household: _____ Mobile Number: _____
5. Name of the Respondent: _____ Mobile Number: _____
- Respondent should not be a temporary visitor to the household*
6. Respondent Gender (Put ☒): Male / Female 7. Age of respondent: _____ (years)
8. Religion (Put ☒): Hindu / Muslim / Christian / Sikh / Others
9. Caste (Put ☒): SC / ST / OBC / General / Jat / Not Applicable
10. Educational Status: _____
11. Main Occupation (Put ☒): Cultivator / Landless Labour / Business / Other (*specify*)
12. Secondary Occupation (Put ☒): Cultivator / Landless Labour / Business / Other (*specify*)
13. Location: (a) Name of Village: _____
(b) Name of Tehsil: _____
(c) Name of District: _____
14. Mogha Serial Number: _____
- 15. Total family size (present status of number of persons in the family):**

Gender	Age (years)			Out migrated
	> 60	60-14	< 14	
Male				
Female				

16. Size of farm land holding (acre)

Number of beegha per acre:

S. No.	Particulars	Before Project (<i>without UGPS</i>) (acre)		After Project (<i>UGPS started functioning</i>) (acre)	
1.	Total Owned land holding				
2.	Total Owned cultivated land				
3.	Leased-in cultivated land from others		Rent Rs /acre/yr:		Rent Rs /acre/yr:
4.	Owned cultivated land leased-out		Rent Rs /acre/yr:		Rent Rs /acre/yr:
	Net cultivated land used				
5.	Net cultivated land used which is Irrigated – from tubewell				
6.	Net cultivated land used which is Irrigated – from canal				
	Net cultivated irrigated land				
7.	Net cultivated rainfed land				

17. Number of Farm Assets Owned Before Project (BP) and After Project (AP)

Farm Asset	Number		Farm Asset	Number	
	BP	AP		BP	AP
Tractors			Iron ploughs		
Tractor driven implements			Desi ploughs		
Sprayers / Dusters			Desiplankers		
Threshers			Desipuddlers (for paddy cultivation)		
Chaff cutters			UGPS		
Electric motors			Water Harvesting Structures		
Diesel pumps			Others-specify		
Tubewells			Others-specify		

18. Irrigation Water Supply

S. No.	Type of source (Perennial =1, Seasonal =2)	Name of source (Tubewell, UGPS etc.)	Number of sources	Conveyance system (Open cemented channel=1, Open earthen channel=2, GI pipes=3, PVC pipes=4, RCC=6, Combination (specify)=5),	Total area irrigated / supplied to (acre)	Total number of hours used in a year by all sources (hours)	Average Running cost based on engine power (Rs per hour)
Before Project (without UGPS)							
1.		Tubewell					
2.		Canal					
After Project (UGPS started functioning)							
1.		Tubewell+UGPS					
2.		Canal+UGPS					
3.		Tubewell					
4.		Canal					

Data for Benefit Cost Analysis (BCA)

Note: The data from Beneficiaries and Controls must be of same years for comparability.

Crop Data

Before Project (without UGPS) (Single year data)
and controls): _____

19. Year of data (same for beneficiaries

19. Crops/Inter-crops cultivated, their actual cultivation areas (acre), yields (quintal per acre) and prices (Rs per quintal)

Crop / Inter cropping S. No.	Main Crop (name)	Inter Crop (if any) (name)	Area of cultivation (acre)	Yield of Main Crop (quintal per acre)	Price of Main Crop (Rs per quintal)	Yield of Inter Crop (quintal per acre)	Price of Inter Crop (Rs per quintal)
Crop / Inter cropping No. 1							
Crop / Inter cropping No. 2							
Crop / Inter cropping No. 3							
Crop / Inter cropping No. 4							

20.a Quantities of Inputs used Per Unit Acre Area in cultivated Crops/Inter-crops

S. No.	Item	Unit	Crop / Inter cropping No. 1	Crop / Inter cropping No. 2	Crop / Inter cropping No. 3	Crop / Inter cropping No. 4	Crop / Inter cropping No. 5	Crop / Inter cropping No. 6
1.	Crop 1	Name						
2.	Variety of Crop 1	Name						
3.	Date/Month of sowing Crop 1	First / Second Fortnight & Month						
4.	Date/Month of harvesting Crop 1	First / Second Fortnight & Month						
5.	Name of Crop 2 (Intercrop, if any)	Name						
6.	Variety of Crop 2	Name						
7.	Date/Month of sowing Crop 2	First / Second Fortnight & Month						
8.	Date/Month of harvesting Crop 2	First / Second Fortnight & Month						
9.	Crop 1 Seed / Seedlings / Plants	gm / kg / quintal / number (<i>Specify</i>) per acre						
10.	Crop 2 Seed / Seedlings / Plants	gm / kg / quintal / number (<i>Specify</i>) per acre						
11.	Irrigation water from tubewell (without UGPS)	minute / hour (<i>Specify</i>) per acre						
12.	Irrigation water from canal (without UGPS)	minute / hour (<i>Specify</i>) per acre						
13.	Total Manure / FYM	kg/quintal/cubic ft (<i>Specify</i>) per acre						
14.	Purchased Manure / FYM	kg/quintal/cubic ft (<i>Specify</i>) per acre						
15.	Urea	kg per acre						

S. No.	Item	Unit	Crop / Inter cropping No. 1	Crop / Inter cropping No. 2	Crop / Inter cropping No. 3	Crop / Inter cropping No. 4	Crop / Inter cropping No. 5	Crop / Inter cropping No. 6
16.	CAN	kg per acre						
17.	DAP	kg per acre						
18.	NPK ()	kg per acre						
19.	Other Fert:	kg per acre						
20.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
21.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
22.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
23.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
24.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
25.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
26.	<u>Hired</u> Labour Man	day per acre						
27.	<u>Hired</u> Labour Woman	day per acre						
28.	<u>Hired</u> tractor for ploughing	hour per acre						
29.	<u>Hired</u> sprayer	hour per acre						
30.	<u>Hired</u> combined harvester cum thresher	hour per acre						
31.	<u>Hired</u> transportation	No. of vehicles of same kind (<i>Specify</i>) per acre						
32.	Others <u>purchased</u> / <u>hired</u> (if any):	<i>Specify</i>						
33.		<i>Specify</i>						
34.		<i>Specify</i>						
35.		<i>Specify</i>						
36.		<i>Specify</i>						

20. b Continued: Quantities of Inputs used Per Unit Acre Area in cultivated Crops/Inter-crops

S. No.	Item	Unit	Crop / Inter cropping No. 7	Crop / Inter cropping No. 8	Crop / Inter cropping No. 9	Crop / Inter cropping No. 10	Crop / Inter cropping No. 11	Crop / Inter cropping No. 12
1.	Crop 1	Name						
2.	Variety of Crop 1	Name						
3.	Date/Month of sowing Crop 1	First / Second Fortnight & Month						
4.	Date/Month of harvesting Crop 1	First / Second Fortnight & Month						
5.	Name of Crop 2 (Intercrop, if any)	Name						
6.	Variety of Crop 2	Name						
7.	Date/Month of sowing Crop 2	First / Second Fortnight & Month						
8.	Date/Month of harvesting Crop 2	First / Second Fortnight & Month						
9.	Crop 1 Seed / Seedlings / Plants	gm / kg / quintal / number (Specify) per acre						
10.	Crop 2 Seed / Seedlings / Plants	gm / kg / quintal / number (Specify) per acre						
11.	Irrigation water from tubewell (without UGPS)	minute / hour (Specify) per acre						
12.	Irrigation water from canal (without UGPS)	minute / hour (Specify) per acre						
13.	Total Manure / FYM	kg/quintal/cubic ft (Specify) per acre						
14.	<u>Purchased</u> Manure / FYM	kg/quintal/cubic ft (Specify) per acre						
15.	Urea	kg per acre						
16.	CAN	kg per acre						
17.	DAP	kg per acre						

S. No.	Item	Unit	Crop / Inter cropping No. 7	Crop / Inter cropping No. 8	Crop / Inter cropping No. 9	Crop / Inter cropping No. 10	Crop / Inter cropping No. 11	Crop / Inter cropping No. 12
18.	NPK ()	kg per acre						
19.	Other Fert:	kg per acre						
20.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
21.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
22.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
23.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
24.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
25.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
26.	Hired Labour Man	day per acre						
27.	Hired Labour Woman	day per acre						
28.	Hired tractor for ploughing	hour per acre						
29.	Hired sprayer	hour per acre						
30.	Hired combined harvester cum thresher	hour per acre						
31.	Hired transportation	No. of vehicles of same kind (<i>Specify</i>) per acre						
32.	Others purchased / hired (if any):	<i>Specify</i>						
33.		<i>Specify</i>						
34.		<i>Specify</i>						
35.		<i>Specify</i>						
36.		<i>Specify</i>						

After Project (UGPS Started Functioning)

21. Year wise Crops/Inter-crops cultivated, and their yields (quintal per acre), prices (Rs per quintal) and actual cultivation areas (acre)

Crop / Inter cropping No.	Crop	Parameter	Yield (quintal per acre), Price (Rs per quintal) & Area of cultivation (acre) (Same years for beneficiaries and controls)				
			Year:	Year:	Year:	Year:	Year:
1.	Main Crop (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
	Inter Crop (if any) (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
		Area of cultivation (acre)					
2.	Main Crop (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
	Inter Crop (if any) (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
		Area of cultivation (acre)					
3.	Main Crop (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
	Inter Crop (if any) (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
		Area of cultivation (acre)					
4.	Main Crop (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
	Inter Crop (if any) (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
		Area of cultivation (acre)					
5.	Main Crop (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
	Inter Crop (if any) (name):	Yield of Main Crop (qt/acre)					
		Price of Main Crop (Rs/qt)					
		Area of cultivation (acre)					

22.a Average Quantities of Inputs used Per Unit Acre Area in cultivated Crops/Inter-crops

S. No.	Item	Unit	Crop / Inter cropping No. 1	Crop / Inter cropping No. 2	Crop / Inter cropping No. 3	Crop / Inter cropping No. 4	Crop / Inter cropping No. 5	Crop / Inter cropping No. 6
1.	Crop 1	Name						
2.	Variety of Crop 1	Name						
3.	Date/Month of sowing Crop 1	First / Second Fortnight & Month						
4.	Date/Month of harvesting Crop 1	First / Second Fortnight & Month						
5.	Name of Crop 2 (Intercrop, if any)	Name						
6.	Variety of Crop 2	Name						
7.	Date/Month of sowing Crop 2	First / Second Fortnight & Month						
8.	Date/Month of harvesting Crop 2	First / Second Fortnight & Month						
9.	Crop 1 Seed / Seedlings / Plants	gm / kg / quintal / number (Specify) per acre						
10.	Crop 2 Seed / Seedlings / Plants	gm / kg / quintal / number (Specify) per acre						
11.	Irrigation water from tubewell + UGPS	minute / hour (Specify) per acre						
12.	Irrigation water from canal + UGPS	minute / hour (Specify) per acre						
13.	Irrigation water from tubewell (without UGPS)	minute / hour (Specify) per acre						
14.	Irrigation water from canal (without UGPS)	minute / hour (Specify) per acre						
15.	Total Manure / FYM	kg/quintal/cubic ft (Specify) per acre						

S. No.	Item	Unit	Crop / Inter cropping No. 1	Crop / Inter cropping No. 2	Crop / Inter cropping No. 3	Crop / Inter cropping No. 4	Crop / Inter cropping No. 5	Crop / Inter cropping No. 6
16.	Purchased Manure / FYM	kg/quintal/cubic ft (<i>Specify</i>) per acre						
17.	Urea	kg per acre						
18.	CAN	kg per acre						
19.	DAP	kg per acre						
20.	NPK ()	kg per acre						
21.	Other Fert:	kg per acre						
22.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
23.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
24.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
25.	Pesticide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
26.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
27.	Herbicide:	gm / ml / kg / litre (<i>Specify</i>) per acre						
28.	Hired Labour Man	day per acre						
29.	Hired Labour Woman	day per acre						
30.	Hired tractor for ploughing	hour per acre						
31.	Hired sprayer	hour per acre						
32.	Hired combined harvester cum thresher	hour per acre						
33.	Hired transportation	No. of vehicles of same kind (<i>Specify</i>) per acre						
34.	Others purchased / hired (if any):	<i>Specify</i>						

S. No.	Item	Unit	Crop / Inter cropping No. 1	Crop / Inter cropping No. 2	Crop / Inter cropping No. 3	Crop / Inter cropping No. 4	Crop / Inter cropping No. 5	Crop / Inter cropping No. 6
35.		<i>Specify</i>						
36.		<i>Specify</i>						

22.b Continued: Average Quantities of Inputs used Per Unit Acre Area in cultivated Crops/Inter-crops

S. No.	Item	Unit	Crop / Inter cropping No. 7	Crop / Inter cropping No. 8	Crop / Inter cropping No. 9	Crop / Inter cropping No. 10	Crop / Inter cropping No. 11	Crop / Inter cropping No. 12
1.	Crop 1	Name						
2.	Variety of Crop 1	Name						
3.	Date/Month of sowing Crop 1	First / Second Fortnight & Month						
4.	Date/Month of harvesting Crop 1	First / Second Fortnight & Month						
5.	Name of Crop 2 (Intercrop, if any)	Name						
6.	Variety of Crop 2	Name						
7.	Date/Month of sowing Crop 2	First / Second Fortnight & Month						
8.	Date/Month of harvesting Crop 2	First / Second Fortnight & Month						
9.	Crop 1 Seed / Seedlings / Plants	gm / kg / quintal / number (<i>Specify</i>) per acre						
10.	Crop 2 Seed / Seedlings / Plants	gm / kg / quintal / number (<i>Specify</i>) per acre						
11.	Irrigation water from tubewell + UGPS	minute / hour (<i>Specify</i>) per acre						
12.	Irrigation water from canal + UGPS	minute / hour (<i>Specify</i>) per acre						

S. No.	Item	Unit	Crop / Inter cropping No. 7	Crop / Inter cropping No. 8	Crop / Inter cropping No. 9	Crop / Inter cropping No. 10	Crop / Inter cropping No. 11	Crop / Inter cropping No. 12
13.	Irrigation water from tubewell (without UGPS)	minute / hour (Specify) per acre						
14.	Irrigation water from canal (without UGPS)	minute / hour (Specify) per acre						
15.	Total Manure / FYM	kg/quintal/cubic ft (Specify) per acre						
16.	Purchased Manure / FYM	kg/quintal/cubic ft (Specify) per acre						
17.	Urea	kg per acre						
18.	CAN	kg per acre						
19.	DAP	kg per acre						
20.	NPK ()	kg per acre						
21.	Other Fert:	kg per acre						
22.	Pesticide:	gm / ml / kg / litre (Specify) per acre						
23.	Pesticide:	gm / ml / kg / litre (Specify) per acre						
24.	Pesticide:	gm / ml / kg / litre (Specify) per acre						
25.	Pesticide:	gm / ml / kg / litre (Specify) per acre						
26.	Herbicide:	gm / ml / kg / litre (Specify) per acre						
27.	Herbicide:	gm / ml / kg / litre (Specify) per acre						
28.	Hired Labour Man	day per acre						
29.	Hired Labour Woman	day per acre						
30.	Hired tractor for ploughing	hour per acre						
31.	Hired sprayer	hour per acre						

S. No.	Item	Unit	Crop / Inter cropping No. 7	Crop / Inter cropping No. 8	Crop / Inter cropping No. 9	Crop / Inter cropping No. 10	Crop / Inter cropping No. 11	Crop / Inter cropping No. 12
32.	Hired combined harvester cum thresher	hour per acre						
33.	Hired transportation	No. of vehicles of same kind (<i>Specify</i>) per acre						
34.	Others purchased / hired (if any):	<i>Specify</i>						
35.		<i>Specify</i>						
36.		<i>Specify</i>						

Year-wise After UGPS Project Prices of Inputs used for cultivated Crops/Inter-crops (*same for beneficiaries and controls*)

23. Seed / Seedlings / Plants prices (Rs per gm / kg / quintal / number)

S. No.	Crop	Variety	Per unit (<i>Specify</i>)	Rs	Rs	Rs	Rs	Rs
				<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>
			gm / kg / quintal / number (Put ☒)					
			gm / kg / quintal / number (Put ☒)					
			gm / kg / quintal / number (Put ☒)					
			gm / kg / quintal / number (Put ☒)					
			gm / kg / quintal / number (Put ☒)					

24. Other Inputs (Rs/unit)

S. No.	Input	Per unit (<i>Specify</i>)	Rs	Rs	Rs	Rs	Rs
			<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>
1.	Irrigation water from tubewell	minute / hour / acre (Put ☒)					
2.	Irrigation water from canal	minute / hour / acre (Put ☒)					
3.	Manure / FYM	kg / quintal / cubic ft (Put ☒)					
4.	Urea	kg					
5.	CAN	kg					
6.	DAP	kg					
7.	NPK ()	kg					
8.	Other Fert:	kg					

S. No.	Input	Per unit (<i>Specify</i>)	Rs	Rs	Rs	Rs	Rs
			<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>
9.	Pesticide:	gm / ml / kg / litre (Put ☒)					
10.	Pesticide:	gm / ml / kg / litre (Put ☒)					
11.	Pesticide:	gm / ml / kg / litre (Put ☒)					
12.	Pesticide:	gm / ml / kg / litre (Put ☒)					
13.	Herbicide:	gm / ml / kg / litre (Put ☒)					
14.	Herbicide:	gm / ml / kg / litre (Put ☒)					
15.	Hired Labour Man	day					
16.	Hired Labour Woman	day					
17.	Hired tractor for ploughing	hour or acre (Put ☒)					
18.	Hired sprayer	hour or acre (Put ☒)					
19.	Hired combined harvester cum thresher	hour or acre (Put ☒)					
20.	Hired transportation	Per vehicle of same kind (<i>Specify</i>)					
21.	Others purchased / hired (if any):	<i>Specify</i>					
22.		<i>Specify</i>					

Livestock Data

Before Project (without UGPS) and After Project (UGPS Started Functioning)

25. Livestock kind, their number, cost of purchase after UGPS, yields and prices

Livestock kind and main product	Breeds of animals owned	Breed wise Numbers of animals owned (<i>Same years for beneficiaries and controls</i>)			Total Cost of purchase after UGPS (Rs)	Unit	Average Yield of Main product Per Animal Per Year		Number of months of lactation
		Before Project <u>Year:</u>	After Project <u>Year:</u>	Numbers purchased after UGPS Started Functioning			Before Project <u>Year:</u>	After Project <u>Year:</u>	
Buffalo – milk producing						litre			
						litre			
						litre			
Buffalo – dry						-	-	-	
						-	-	-	
						-	-	-	
Cow – milk producing						litre			
						litre			
						litre			

Cow – dry						-	-	-	
						-	-	-	
						-	-	-	
Goat - meat						kg			
Sheep – wool and / or meat (Specify)						kg			

26. Year-wise Prices of Main Products from owned livestock Before and After UGPS (Same years for beneficiaries and controls) started functioning

Livestock kind and main product	Unit	Before Project	After Project	After Project	After Project	After Project	After Project
		<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>
Buffalo – milk	Rs per litre						
Cow – milk	Rs per litre						
Goat – meat	Rs per kg						
Sheep – wool	Rs per kg						
Sheep – meat	Rs per kg						

27. Average Quantities of Inputs used Per Animal of a Livestock kind Per Year (Same years for beneficiaries and controls)

S. N o.	Input	Unit	Buffalo – milk producing		Buffalo – dry		Cow – milk producing		Cow – dry		Goat - meat		Sheep – wool and / or meat	
			Before Project	After Project	Before Project	After Project	Before Project	After Project	Before Project	After Project	Before Project	After Project	Before Project	After Project
1.	Total Dry fodder	quintal / animal / year												
2.	<u>Purchased</u> Dry fodder	quintal / animal / year												
3.	Total Green fodder	quintal / animal / year												
4.	<u>Purchased</u> Green fodder	quintal / animal												

		al/ year												
5.	Purchased Concentrates	kg / animal / year												
6.	Purchased Feed (Specify):	kg / animal / year												
7.	Total health care cost	Rs / animal / year												
8.	Total labour	hours per day x 365 days / animal												
9.	Hired Labour Man	hours per day x 365 days / animal												
10.	Hired Labour Woman	hours per day x 365 days / animal												
11.	Purchased Other (Specify):	Specify												

28. Year-wise After UGPS Project Prices of Inputs used for owned Livestock (Same years for beneficiaries and controls)

S. No.	Input	Unit	Rs	Rs	Rs	Rs	Rs
			Year:	Year:	Year:	Year:	Year:
1.	Purchased Dry fodder	Rs per quintal					
2.	Purchased Green fodder	Rs per quintal					

S. No.	Input	Unit	Rs	Rs	Rs	Rs	Rs
			<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>	<u>Year:</u>
3.	<u>Purchased</u> Concentrates	Rs per kg					
4.	<u>Purchased</u> Feed (<i>Specify</i>):	Rs per kg					
5.	<u>Hired</u> Labour Man	Rs per day or month (<i>specify</i>)					
6.	<u>Hired</u> Labour Woman	Rs per day or month (<i>specify</i>)					
7.	<u>Conversion of wheat stalk left by combined harvester on field into wheat straw</u>	Rs per trolley					
8.	<u>Purchased</u> / <u>Hired</u> others (if any) (<i>Specify</i>):	<i>Specify</i>					
9.		<i>Specify</i>					

29. What further improvements can be made in the UGPS?

30. What other benefits have been experienced from the UGPS other than water saving, irrigation time saving and land saving?

31. What other options can be there as alternative to the UGPS?