AN IMPACT ASSESSMENT OF THE LANDLESS HAREES PROJECT (LHP)

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AN IMPACT ASSESSMENT OF THE LANDLESS HAREES PROJECT (LHP)

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A Rural Support Programmes Network (RSPN) study
commissioned by the Sindh Rural Support Organisation (SRSO)

PREFACE

This impact assessment of the Landless Harees Project (LHP) is of a piece with the series of studies Rural Support Programmes Network (RSPN) has undertaken to document and study the work of its member Rural Support Programmes (RSPs). The Sindh RSPs Consortium, represented by the Sindh Rural Support Organisation (SRSO), the Thardeep Rural Development Programme (TRDP) and the National Rural Support Programmes (NRSP), commissioned RSPN to identify and assess the activities of LHP, in order to ensure its viability in light of both its current objectives and future progress.

The assessment was accordingly carried out over a rapid duration of two and half months, between late April and June 2011. Following inception visits to the Consortium's stakeholders, an extensive field visit to Sindh to document the project and its beneficiaries was undertaken. The stable draft of the document was presented to the Board of Directors of SRSO.

While this assessment is specific to the project and its harees, it is hoped that its lessons can be shared and applied across similar efforts.

I am grateful for the inputs to the study provided by many people. I would like to acknowledge the contributions made by the assessment's enumerators and also the cooperation of SRSO, TRDP and SRSO staff. Any blame for the studies' inadequacies however must be laid not at their door, but mine.

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GLOSSARY

C

CO Community Organisation

G

GoS Government of Sindh

L

LHP Landless Harees Project

M

MHI Micro Health Insurance

MFNK Microdrip Family Nutrition Kits

N

NRSP National Rural Support Programme

P

PKR Pakistan Rupee

R

RSPs Rural Support Programmes

RSPN Rural Support Programmes Network

S

SRSO Sindh Rural Support Organisation

T

TRDP Thardeep Rural Development Programme

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01

BACKGROUND AND INTRODUCTION

LANDLESS HAREES PROJECT (LHP)

The chapter aims to provide an introduction to this impact assessment of the Landless Harees Project (LHP). It will begin by briefly providing the rationale behind LHP, and it will proceed by laying out the objectives, structure, and methodology of the assessment.

LHP is a Government of Sindh (GoS) intervention that aims to alleviate poverty and socially empower landless harees/agricultural workers by (i) distributing public land and (ii) providing them institutional support through 3 Rural Support Programmes (RSPs) i.e. Sindh Rural Support Organization (SRSO), National Rural Support Programme (NRSP), and Thardeep Rural Development Programme (TRDP). LHP gives preference to women by mostly granting them land and the concomitant institutional support.

The upper and lower ceilings of allotted land are 1 and 25 acres. For previous interventions of this kind the upper ceiling was set at 16 acres under the Land Grant Policy 1989. However, the upper ceiling was increased in 2008 as part of amendments aiming to enhance the effectiveness of public land redistribution. Other amendments - all of which apply to this project - are listed below:

- Land shall be granted to the landless harees residing in the same deh, tappa and taluka of the district.
- The land shall be granted free of cost.
- The grant shall be non-transferable for a period of 15 years.

The non-transference of land applies to both leasing and selling of land. However, this intervention is not simply unique due to these amendments. The provision of institutional support to create linkages and facilitate land development, cultivation and the marketing of produce also sets it apart from other interventions that have entailed the redistribution of public land in Sindh. Institutional support has been provided as the effectiveness of previous interventions is believed to have been constrained by it absence. Institutional support comprises (i) cash grants for the development of unutilised land, (ii) the provision of agricultural inputs in the form of seeds, fertilizers, pesticides, weedicides, and threshing (iii) technical advisory services provided through Agricultural Officers, and (iv) social mobilisation through the formation of Community Organisations (COs) and cooperatives of villages. Land Development entails layout, leveling, plowing, sowing, soil testing and cleaning of water courses. Both land development and agricultural inputs were provided for 4 acres, with an upper limit of PKR 28,800 and PKR 27,160. Social mobilisation was not simply undertaken so that COs can develop linkages with the government and RSPs, but they also offered a platform where beneficiaries could share knowledge and provide social support to one another.

In addition to institutional support, beneficiary households were also provided Micro Health Insurance (MHI) that provides hospitalisation and accidental cover, Microdrip Family Nutrition Kits (MFNK), a set of 5 poultry birds, and fruit plant saplings in order to further improve their living standard. This additional package has a cost of PKR 2,040.

Land allotment initially took place in 2008 and 2009. Subsequently, additional land allotment began in 2010. The project spans 17 districts in the Sindh province, which are listed below in terms of the relevant RSP:

- SRSO: Ghotki, Qambar Shahdadkot, Larkana, Kashmore, Shikarpur, Khairpur, Jacobabad, and Sukkur.
- NRSP: Shaheed Benazirabad, Thatta, Badin, Sanghar, Matiari, and Mirpurkhas.
- TRDP: Jamshoro, Umerkot and Dadu.

GoS allotted land to 4,196 households. Land was allotted to 2,930 females, which form 70% of the total awardees. About 2,768 of all households are clean cases, eligible for support by the RSPs. Of the clean cases, 1,311 were from the NRSP districts, 1,262 were from the SRSO districts, and 195 were from the TRDP districts.

OBJECTIVES OF THE ASSESSMENT

The principal objective of the assessment is to measure the project's impact on output consumed, profits, labour, income as well as power. The assessment does not assess how land was allotted and it does not use in-depth qualitative methods such as participant observation to assess the impact on power. Both of these gaps require future research.

However, this impact is dependent on the processes of land development and cultivation, which the abovementioned institutional support aims to assist. This will be investigated in detail. The following issues regarding land development and cultivation shall be investigated:

- What constraints, if any, led to no land development being undertaken or variations in area developed?
- Did households supplement cash grants with investments in land development?
- If so, what sources of money did they utilise in developing land?
- Were the agricultural inputs utilised?
- Any problems relating to these agricultural inputs.

With regard to the impact of land and institutional output consumed, profits, labour and income the following issues will be investigated:

- If any output was produced, how did it impact consumption and/or profit?
- How did the employment status of beneficiary household members change?
- What was the project's impact on hired labour?
- How did beneficiary households' incomes change once income from forgone labour is accounted for?

Regarding the impact on power, the assessment will aim to measure the impact on the ability of beneficiary household members to make effective choices. It is important to note that the study will aim to measure these changes as the beneficiaries and their household members view them, and not according to an absolute or blueprint standard. Further, the assessment will also aim to investigate any relevant constraints or catalysts.

ORGANISATION OF THE REPORT

The study will be organised as follows. The 2nd chapter will describe the demographic profile of sample households. The subsequent 2 chapters shall provide an analysis of how allotted land and institutional support were used by sample households. The next chapter will investigate issues pertaining to land development followed by chapters on the project's impact on output and profit, labour, income and power. The assessment will close with a synthesis of results.

METHODOLOGY

This section subsequently describes the sample size and selection, survey design, survey implementation, and methodological limitations, all of which are relevant to the primary data.

Sample Size and Selection

11 of 17 districts were nominated by the Sindh RSPs' Consortium for the survey. Due to resource limitations, 30 households were selected through simple random sampling from each district, resulting in a sample size of 330 households. The list of households that received land in 2008 or 2009 in conjunction with institutional support was used as the sampling frame. For households that were allotted land in 2010, any impact assessment at this stage would be premature. The nominated districts are given below:

- SRSO: Ghotki, Qambar Shahdadkot, Larkana, Kashmore, Khairpur, Jacobabad, and Sukkur.
- NRSP: Thatta, Badin, and Mirpurkhas.
- TRDP: Umerkot

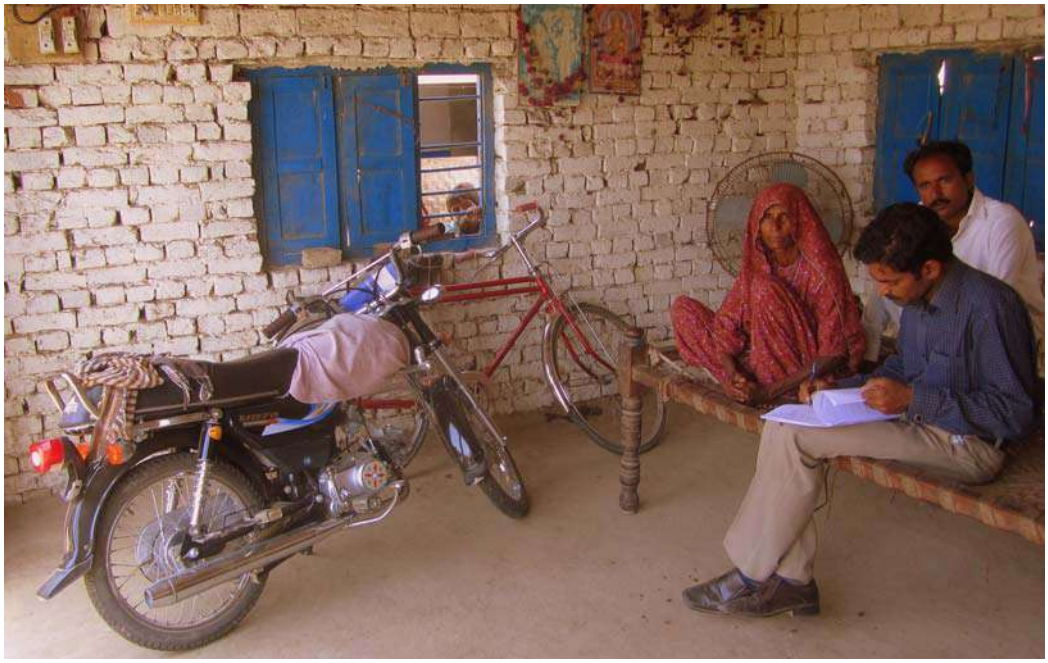
Survey Design

With reference to quantitative data, if the land was used by the household before the award of title, the survey measures variables with regard to 2 reference periods: the year before land was allotted (2007 or 2009) and the proceeding year i.e. 2010. All data has been collected through recall. The difference between before and after is the impact. In addition to this, only closed ended questions were used to collect this quantitative data i.e. questions had a limited number of possible answers from which the interviewee could choose. Efforts were made to maximise these categories and hence minimise measurement error. Regarding qualitative data, open-ended questions were used. Enumerators were given the allowance to conduct unstructured interviews. However, these interviews could also take the form of narrative interviews.

Survey Implementation

Survey implementation took place through 3 teams of trained enumerators, each comprised of 3 members. The teams covered the following districts:

- Team 1: Kashmore, Jacobabad, Qambar Shahdadkot and Larkana.
- Team 2: Ghotki, Sukkur and Khairpur.
- Team 3: Thatta, Badin, Mirpurkhas and Umerkot



The assessment survey being conducted in Mirpurkhas

The 9 enumerators were selected by the Team Leader from a pool of 60 candidates, all of whom were interviewed. The selected enumerators were subsequently trained in conducting interviews in general as well as specifically in the survey instrument. Probing in particular was emphasised with regard to open-ended questions. Each enumerator was also given an orientation with regards to his/her teams of reference. Each enumerator undertook trial interviews before actually initiating the survey.

The enumerators were monitored on the field by both the Team Leader and Agricultural Officers from the LHP project. An Agricultural Officer from each survey district was provided training on how to check the filled questionnaire and provided an orientation on his responsibilities as well as those of the enumerators. Data collection began on 6th May and was completed on 10th May.

Methodological Limitations

Methodological limitations and factors that may have contributed to measurement error are listed below:

- Without baseline and follow-up surveys, all data collection depended on recall.
- Regarding closed-ended questions, possible answers outside the given categories may not have been recorded.
- Regarding open-ended questions, a lack of probing and the sensitivity of topics relating to power may have led to limited data being reported.
- The survey solely depended on reporting. Physical measurements, which typically have greater accuracy, may have been employed to gauge results e.g. output produced. Similarly, qualitative research designs that tend to provide richer data/thicker description e.g. participant observation were not applied due to resource constraints.

02

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DEMOGRAPHIC PROFILE OF SAMPLE HOUSEHOLDS

Beneficiaries were asked the sex and age of the awardee as well as the size of the household and its composition in terms of male and female adults and children. It was the also asked whether the household was a member of the CO or not. All subsequent analysis is only relevant to sample household.

Regarding sex of awardee, Table 1 shows that most awardees are female. However, there are exceptions to this trend i.e. Sukkur, Larkana, Khairpur and Badin.

As shown by the averages given in Table 2 below, households have marginally more male adults and children as compared to their female counterparts. This is verified by the sums of male and female adults and children provided in the respective table, from which it can be calculated that 48.7% and 49% of adults and children are female. This is on the contrary to the global trend whereby females exceed males, and is in line with the phenomenon of 'missing women'. This trend is consistent across districts. The household size is also virtually consistent across districts.

District-Wise Percentages of Female Awardees Table 1

Districts	Frequency	%
All Districts	227	69
Badin	14	46.7
Ghotki	30	100
Jacobabad	19	65.5
Kashmore	30	100
Khairpur	10	33.3
Larkana	28	93.3
Mirpurkhas	9	30
Qambar Shahdadkot	30	90
Sukkur	6	20
Thatta	29	96.7
Umerkot	25	83.3

Average Household Size and Composition Table 2

	N	Sum	Avg.	Std. Deviation
Household Members	329	2819	8.5	4.7
Male Adults	327	742	2.2	1.5
Male Children	269	726	2.6	1.7
Female Adults	325	706	2.1	1.3
Female Children	262	698	2.6	1.8

Regarding CO membership, as many as one-fourth of the respondents claimed to be non-members. Such households are absent from Jacobabad, Kashmore and Qambar Shahdadkot and there is only 1 such case in Larkana. For the remaining districts, details are provided by Table 3 below.

District-Wise Percentages of Non-Members Table 3

Districts	Frequency	%
Badin	3	10
Ghotki	10	34.5
Khairpur	18	60
Mirpurkhas	17	56.7
Sukkur	11	36.7
Thatta	12	41.4
Umerkot	4	13.3

03

LAND ALLOTMENT

Beneficiaries were asked when and how much land was allotted to them. They were also asked how much, if any, of the awarded land they used prior to the award of title under LHP.

YEAR OF LAND ALLOTMENT

The sample households were allotted land in the years 2008 and 2009. 58.5% and 41.3% households accounted for the former and latter, respectively. The year for 1 household from Thatta is unknown. Table 4 shows that in most SRSO districts land was largely awarded in 2009 whereas in the remaining districts this took place a year earlier.

District-Wise Year of Land Allotment Table 4

Districts	Year	Frequency	%
Badin	2008	20	66.7
	2009	10	33.3
Ghotki	2008	1	3.3
	2009	29	96.7
Jacobabad	2009	30	100
Kashmore	2009	30	100
Khairpur	2009	30	100
Larkana	2008	1	3.3
	2009	29	96.7
Mirpurkhas	2008	30	100
Qambar Shahdadkot	2009	30	100
Sukkur	2008	30	100
Thatta	2008	25	86.2
	2009	4	13.8
Umerkot	2008	29	96.7
	2009	1	3.3

CATEGORIES OF BENEFICIARIES

Beneficiary households can be placed in 3 principal categories:

- Category I: Those that did not use land prior to the award of title: 69.7% (230 households).
- Category II: Those that used some of the land prior to the award of title: 13% (44 households)
- Category III: Those that used all of the land prior to the award of title: 17.3% (53 households)

The figures clearly show that a majority of households did not use any land prior to the award of title. In addition to this, Table 5 shows that no single category accounts for all the households in a district. However, the Category II is absent in Khairpur and Category III is absent in Kashmore.

District-Wise Percentages of Female Awardees Table 5

Districts	Used No Land Before Title	Used Some Land Before Title	Used All Land Before Title
Badin	56.7	13.3	30
Ghotki	76.7	3.3	20
Jacobabad	80	10	10
Kashmore	90	10	0
Khairpur	60	0	40
Larkana	80	6.7	13.3
Mirpurkhas	80	6.7	13.3
Qambar Shahdadkot	66.7	10	23.3
Sukkur	56.7	40	3.3
Thatta	56.7	16.7	26.6
Umerkot	63.3	26.7	10

SIZE OF ALLOTTED LAND

Regarding the size of land allotted to the sample households, Table 6 provides details. 1 value for the Category II is unknown. It clearly shows that households in the abovementioned Category III were on average allotted plots of the smallest size. It is followed by Category I and Category II. In addition to this, households in Category II on average used only 32% of the allotted land prior to the award of title. In other words, most of the land awarded to households in this category was previously unused.

Further, Table 7 clearly shows that Sukkur and Khairpur by and large have the highest average size of awarded land. Badin and Mirpurkhas were at the lower end of the curve whereas the remaining seven districts are in closer proximity to the average for all districts stated above. These districts have averages within the range of 6.2-8.3 acres.

Average Size of Allotted Land Table 6

			N	Avg.	Std. Deviation
Overall			329	8.1	7
Used No Land Before Title			230	9.2	7.7
Used Some Land Before Title	Overall		43	11	7.3
	Unutilised Land		43	7.5	6.2
Used All Land Before Title			56	5.5	4

Allotted land being prepared in Jacobabad

District-Wise Average Size of Allotted Land Table 7

Districts	Overall	Used No Land Before Title	Used Some Land Before Title		Used All Land Before Title
			Overall	Unutilised Land	
Badin	6.2	6	6	1.3	8
Ghotki	5.1	6	8	4	3
Jacobabad	7.1	8	6.3	3.1	5
Kashmore	8	8	8	4.3	
Khairpur	13	20			2
Larkana	7.1	8.1	2	1	3.5
Mirpurkhas	5.3	4.1	13	5.1	10.6
Qambar Shahdadkot	7.1	8	11	7	5.4
Sukkur	17.3	17.1	19	15	3
Thatta	8.3	2	14.2	8.1	6.4
Umerkot	6.3	8	4	2.1	5.3

04

INSTITUTIONAL ASSISTANCE

CASH GRANT

Beneficiaries were asked whether they were provided a cash grant for developing land, and if so, how much cash did they receive. Results summarised in Table 8 show that overall about three-fourths of all households received a grant. Grants were not strictly provided to those who had unutilised land but they have a lower probability of receiving a grant and typically received lower grants.

Regarding different districts, Table 9 below clearly shows that in 4 districts i.e. Thatta, Umerkot, Badin and Jacobabad, virtually all beneficiaries have received grants. On the other end of the spectrum, in 4 districts i.e. Larkana, Mirpurkhas, Sukkur and Qambar Shahdadkot, about one-third beneficiaries received grants.

Percentage Beneficiaries that Received Grant and Average Size of Grant Table 8

	N	% Granted Cash	Avg.	Std. Deviation
All	245	74.2	24250	7865
Used No Land Before Title	182	79.1	24910	7695
Used Some Land Before Title	29	67.4	23569	8134
Used All Land Before Title	34	59.6	21298	8046

District-Wise Percentage Beneficiaries that Received Grant and Average Size of Grant Table 9

Districts	N	% Granted Cash	Avg.	Std. Deviation
Badin	29	96.7	23475	4184
Ghotki	21	70.0	25434	7955
Jacobabad	28	93.3	27178	5831
Kashmore	26	86.7	23653	7557
Khairpur	8	73.3	18797	8030
Larkana	19	36.7	30684	7453
Mirpurkhas	19	36.7	14794	7930
Qambar Shahdadkot	16	46.7	29687	4269
Sukkur	19	36.7	23884	6554
Thatta	30	100.0	19159	6029
Umerkot	30	100.0	27746	7589

AGRICULTURAL INPUTS

Beneficiaries were asked if they received agricultural inputs and if so, in which year and season did they receive it. Agricultural inputs comprise seeds, fertilizers, pesticides and weedicides. According to Table 10 only 50.6% of households received at least 1 agricultural input. These were mostly delivered in the Kharif season of 2009.

As clearly shown by Table 11, the abovementioned 50.6% households at least received seeds. A lesser proportion of households received fertilizers, pesticides and weedicides. Also, there is a significant and positive relationship between the utilisation of land prior to the award of title and the receipt of an agricultural input. In addition to this, the crops for which seeds were given and the percentage of households that received them are listed below. It is pertinent to note that these are proportions of households that received seeds, and not all households.

- Rice: 51.9%
- Cotton: 33.3%
- Wheat: 12.6%

Agricultural Inputs: Year and Season of Receipt Table 10

		Season		Total
		Kharif	Rabi	
Year	2008	1	1	2
	2009	133	9	142
	2010	10	13	23
Total		144	23	167

Percentage of Household that Received Agricultural Inputs Table 11

	Seeds	Fertilizer	Pesticide	Weedicide
All	50.6	50	31.2	24.2
Used No Land Before Title	38.7	37.4	23	24.2
Used Some Land Before Title	76.7	79.1	51	41.9
Used All Land Before Title	78.9	78.9	49.1	43.9

Moreover, Table 11 shows that all beneficiaries from Badin, Thatta and Umerkot received seeds. Regarding fertilizers, all households from the same districts plus Sukkur benefitted. Regarding pesticides and weedicides, low proportions of households benefitted across all districts barring Umerkot. Indeed, all beneficiaries in Umerkot received all inputs. On the other hand, in Ghotki only a few received seeds, fertilizers and weedicides.

TECHNICAL SERVICES

Households report a high level of interaction with Agricultural Officers. Since the award of land title, 96% of households claim to have been visited by them while as many as 58% of households have also contacted them. On average, a household has been visited 8 times, and those who made contact, on average contacted Agricultural Officers 5 times. In addition to this, Table 13 shows that most households were given advice on land development and the use of fertilizers.

Moreover, 4.6% of households were not satisfied with the performance of the Agricultural Officers. Two primary reasons are: advice was not useful (2.4%) and no visits (2.2%).

District-Wise: Percentage of Household that Received Agricultural Inputs Table 12

Districts	Seeds	Fertilizer	Pesticide	Weedicide
Badin	100	86.7	60	43.4
Ghotki	30	30	20	6.7
Jacobabad	6.7	6.7	0	6.7
Kashmore	13.3	13.3	3.3	10
Khairpur	26.7	26.7	13.3	3.3
Larkana	36.7	33.3	0	30
Mirpurkhas	46.7	56.7	26.7	6.7
Qambar Shahdadkot	40	40	10	16.7
Sukkur	56.7	100	40	10
Thatta	100	100	70	36.7
Umerkot	100	100	100	96.7

Advice Given by Agricultural Officers Table 13

Given Advice On	%
Land Development	81
Use of Seeds	70
Use of Fertilizers	39
Use of Pesticides	21
Use of Weedicides	14
Harvesting	17
Shortage of Output	14
Marketing of Output	12

05

LAND DEVELOPMENT AND IRRIGATION

LAND DEVELOPMENT

Beneficiaries were asked the following with 2010 as the reference period:

- Whether land development was undertaken?
- If so, how much area was developed?
- What expenditure through cash grants and/or investments took place?
- The source of money for investment?

The subsequent analysis addresses these questions.

Land Not Developed

9.5% (31 of 330) households did not develop land for farming. A possible contributing factor is that 29 of these households did not receive cash grants for land development even though 27 of them did not use land prior to the award of title. However, 3 households that did not receive grants were also facing court cases. Table 14 shows that these households are only present in 4 districts and largely concentrated in Khairpur and Mirpurkhas. This finding emphasises the importance of cash grants - households that do not receive cash grants are less likely to undertake land development. Moreover, the average size of undeveloped land is biased upwards by the cases in Khairpur. It is pertinent to note that 14 cases from Khairpur pertain to taluka Nara and 9 cases from Mirpurkhas pertain to taluka Kot Ghulam Muhammad. In other words, these cases largely originate from these two talukas.

Expenditure on Land Development

4.8% (16 of 330) households developed land for farming without incurring any expenditure. The remaining households comprise three classes in terms of expenditure on land development:

i. Spent the cash grant and invested their own cash: 59.7% (197 households);

ii. Only spent the cash grant: 14.5% (48 households);

iii. Only invested their own cash: 11.5% (38 households)

This implies that 71.2% households invested their own cash. Table 15 stratifies the respective category in terms of districts. The category forms the majority in most districts, and in Kashmore, all households fall into this category. However, Khairpur and Ghotki are exceptions to this trend.

District-Wise: Land Not Developed Table 14

Districts	N	Minimum	Maximum	Average	Std. Deviation
All Districts	31	1	25	14	10
Khairpur	17	1	25	21	9
Larkana	2	1	8	4.5	5
Mirpurkhas	10	2.9	16	5.9	4
Qambar Shahdadkot	2	4	12	8	5.5

District-Wise: Investment in Land Development Table 15

Districts	Investment		
	Yes	No	Total
Badin	26	4	30
Ghotki	8	22	30
Jacobabad	18	12	30
Kashmore	30	0	30
Khairpur	2	28	30
Larkana	28	2	30
Mirpurkhas	18	12	30
Qambar Shahdadkot	28	2	30
Sukkur	23	7	30
Thatta	29	1	30
Umerkot	25	5	30
Total	235	95	330

Moreover, Table 16 shows the average amount invested by households. It also gives averages without 4 outliers i.e. PKR 400,000, PKR 320,000, PKR 210,000, and PKR 200,000. The highest and lowest values pertain to Sukkur whereas the second and third values pertain to Thatta and Mirpurkhas. All relevant households used some of the land before title was awarded and have been awarded land that is above average in size i.e. 25, 16, 17 and 25 acres respectively. Without these households the overall average and the average pertaining to the respective category fall by PKR 4,681 and PKR 23,707.6, and present a more representative picture of the remaining households. Moreover, it clearly shows households that used at least part of the land prior to the award of title tend to invest more on average although a lower proportion of such households tend to invest.

Table 17 stratifies the overall average in terms of districts. It clearly shows that not only do Khairpur and Ghotki have the least number of households making investments in land development, but those that have invested, have invested amounts that are significantly below par. The averages for Sukkur, Mirpurkhas and Thatta have been inflated by the 4 outliers mentioned above, after the removal of which the averages for the respect districts fall to PKR 38,047, PKR 38588.2 and PKR 46,962.6. Nonetheless, households from Thatta and Badin typically made investments that are considerably above the average (without outliers).

Tubewell in Khairpur

Average Amount Invested in Land Development Table 16

	With Outliers				Without Outliers	
	All	Used No Land Before Title	Used Some Land Before Title	Used All Land Before Title	All	Used Some Land Before Title
N	234	157	41	37	230	37
Average	41601.3	33396	69127.5	44113.5	36920	45419.4
Std. Deviation	45473.1	28536	83295.2	35182	30031	34211.5

District-Wise: Average Amount Invested in Land Development Table 17

Districts	N	Average	Std. Deviation
Badin	26	51630.7	31902.7
Ghotki	8	11375	5578.9
Jacobabad	18	30188.8	21129.2
Kashmore	30	33433.3	29317.1
Khairpur	2	12500	10606.6
Larkana	28	41821.4	26235.4
Mirpurkhas	18	42444.4	51118.3
Qambar Shahdadkot	28	36392.8	28404.9
Sukkur	23	60826.1	85958.5
Thatta	28	56714.2	69686.5
Umerkot	25	31556	21299.5

Table 18 shows the source of money behind the investments that were made. The source for 10 households is unknown. It shows that generally households relied on the sale of assets followed by loans, particularly from moneylenders, and income saved either from awarded land or other sources. No one took a loan from the bank. The reliance on loans and/or sale of assets is diluted for those who at least used part of the land before title was awarded. This land acted as an additional source of income that could be saved and invested. This trend offers a possible explanation behind why this category of households was able to invest larger amounts than other households. Conversely, the other category of households, which accounts for the majority, displayed a heavier reliance on the sale of assets and loans if alternative income sources were not present. In other words, this category in particular either became indebted or experienced depletion in assets in order to develop land. However, future flows of income from the awarded land may help to dilute this trend.

Table 19 gives details regarding the amount gained through each source. The averages given excluded the 4 highest values mentioned above, all of which pertain to income from awarded land. Nonetheless, it clearly shows that income from awarded land in particular offers the highest amounts, followed by sale of assets and income from other sources, whereas loans from the moneylender and in the form of microcredit lay at the lower end of the spectrum.

Sources of Money for Investment and Percentages of Households Table 18

	All	Used No Land Before Title	Used Some Land Before Title	Used All Land Before Title
Loan from Moneylender	24.5	27.5	22.5	14.3
Microcredit	15.4	9.8	27.5	25.7
Income from Awarded Land	7.0	1.3	12.5	25.7
Income from Other Sources	24.1	30.7	7.5	14.3
Sale of Assets	28.9	30.7	30.0	20.0

Average Amount Gained from Money Sources Table 19

District	N	Minimum	Maximum	Average	Std. Deviation
Loan from Moneylender	55	4000	50000	21285.7	14907.6
Microcredit	35	3600	70000	27517.1	19983.9
Income from Awarded Land	12	17000	150000	64250	44243.3
Income from Other Sources	55	2000	140000	34365.4	33644
Sale of Assets	64	3000	110000	38187.5	28856

Area Developed

Table 20 shows the average area and the average proportion of area (expressed in percentage) households aimed to develop. It clearly shows that households on average aimed to develop about three-fourths of the awarded land. It also shows that households that had prior access to at least part of the land aimed to develop more land as well as a higher proportion of awarded land, which has been enabled by larger investments made by households in this category. Higher investments, in turn, have in part been enabled by pre-existing streams of income from the awarded land.

The relationship between amount invested and size of land developed was investigated using the Pearson product-moment correlation coefficient. There is a medium positive correlation between the variable ($r=0.36$, $p<.001$). However, investment is not the only determinant of the size of land developed. Households that did not receive cash grant on average developed 4.3 acres whereas households that received cash grant developed 5.2 acres. This difference was evaluated using an Independent-Sample T-Test. Results show that the difference is statistically significant ($P=0.04$).

Average Area and Average Percentage of Land Developed Table 20

	All		Used No Land Before Title		Used Some Land Before Title		Used All Land Before Title	
	Land Developed	% Developed	Land Developed	% Developed	Land Developed	% Developed	Land Developed	% Developed
N	299		201		43		55	
Average	5	70.5	4.5	65.3	6.0	64	5	95.2
Std. Deviation	3.3	30.5	3.0	30.7	3.6	30	3.5	14

District-Wise: Average Area and Average Percentage of Land Developed Table 21

Districts	N	Average	
		Land Developed	% Developed
Badin	30	5.7	87.3
Ghotki	30	3.4	71.3
Jacobabad	30	6.1	83.3
Kashmore	30	4.2	65.7
Khairpur	13	2.7	96.7
Larkana	28	4.1	73.1
Mirpurkhas	20	6	80.1
Qambar Shahdadkot	28	3.7	58.7
Sukkur	30	4.8	31.3
Thatta	30	6.4	79
Umerkot	30	3.9	67

In addition to this, Table 21 shows that in Khairpur, Badin, Jacobabad, Mirpurkhas and Thatta, almost all land allotted underwent development. Khairpur is a particularly interesting case: most households have not developed land, but those that have, have virtually provided all the allotted land. On the lower end of the curve lay Sukkur and Qambar. Sukkur is a particularly extreme case where a mere one-third of allotted land has been developed.

IRRIGATION

2.7% or 9 households invested in tube wells. These households are from the districts of Khairpur, Sukkur and Mirpurkhas. The average cost was PKR 177,000.

06

IMPACT ON OUTPUT AND PROFIT

Beneficiaries were asked which crops, if any, they grew in the Rabi and Kharif seasons, and for each crop they were asked about the area farmed, the yield, the total output, the output consumed, the output sold and the concomitant profit. Area was measured in acres, output in mound, output consumed in mound and PKR, and profit in PKR.

The reference period varied with whether the land was used before land title was awarded under LHP or not. For land farmed before the title was awarded questions were asked regarding two reference periods i.e. (i) the year before land title was awarded, which for this project can be either 2007 or 2008 and (ii) the preceding year, which is 2010. The use of two reference periods is underpinned by the hypothesised benefits of this kind of land. It is assumed that if the beneficiary household had access to land prior to LHP, more secure and clearly defined property rights should provide greater incentive to invest without fear or challenge of expropriation. This, in turn, should increase productivity. Another possible factor in the increase in productivity is the better quality of agricultural inputs provided to selected households. Hence, two reference periods were applied to measure changes in productivity. On the other hand, for land that was not used before the award of title, the preceding year i.e. 2010 was solely required. For this kind of land, access to additional output consumed and/or profit are the hypothesised benefits.

Accordingly, relevant reference periods varied with the type of beneficiary under consideration. For those who used all the land before the title was awarded, the 2 respective reference periods were required. For households that used none of the land prior to the award of title, 2010 sufficed. For households that used some of the land before title was awarded the picture was more complex. For this class of beneficiary both reference periods were applied for land that was used before title was awarded in order to ascertain any change in productivity. Regarding land that was previously unused by the household, 2010 was the sole reference period.

The impact on output, which is presented below, uses data collected through these questions to explore the following:

i. Whether no output was produced in 1 or both seasons and relevant causes.
ii. The benefits experienced by households that were able to produce output in at least 1 season. Benefits primarily consist of output consumed and/or sold and the concomitant profit. The benefits may accrue to a household through a change in productivity, access to unutilised land, or both.

The analysis below is structured accordingly. The exploration of benefits has been stratified in terms of different classes of beneficiaries as they may experience benefits differently - an argument posited during the discussion on hypotheses given above.

CONSTRAINTS ON OUTPUT

No Output Produced in 2010

25.5% (84 households) of all households did not experience any benefit in terms of output produced in 2010. This category of households can be divided or broken down in terms of two principal categories:

i. Households that gained no output as they were unable to undertake any land development due to a lack of funds. This class of households accounts for 9.4% (31 households) of all households.
ii. Households that gained no output although they undertook land development. This class of households accounts for 16.1% (53 households) of all households.

The first subdivision has been discussed in detail in the section on land development. This section shall investigate the latter subdivision. Accordingly, all subsequent statistical analysis shall exclude the 31 households that were unable to develop land from the sample. To begin with, the latter category is expressed in terms of three categories of beneficiaries in the list below:

- Used No Land Before Title: 18.9% (38 of 201 households)
- Used Some Land Before Title 9.3% (4 of 43 households)
- Used All Land Before Title: 19.3% (11 of 55 households)

Moreover, Table 22 clearly shows that households that have been unable to gain any output are largely concentrated in Thatta and Qambar Shahdadkot. Conversely, there were no such households in Umerkot.

Table 23 shows that floods are the predominant reason for the failure to produce output, which tends to cut across the different categories of beneficiaries. However, the other given factors are virtually concentrated among households that did not use land before title was awarded. Hence, if the floods are removed from the picture, then households that used at least part of the land before title was awarded would not be among those who failed to produce output. Conversely, households that have recently accessed land face the full variety of reported problems. The primary problems faced by these households other than floods are non-availability of water, water-logging/salinity, and un-levelling followed by a shortage of funds. The sole instance of no possession was due to a court case lodged against the awardee by those who claimed to have prior access to land. 2 factors need to be noted when reading the table below, and all related data: (i) N may exceed the number of households as a household maybe affected by more than 1 factor and (ii) the land sizes given do not include undeveloped land.

Whether Output was Produced or Not in 2010: District-Wise Table 22

Districts	Output Received		
	Yes	No	
Badin	29	1	30
Ghotki	28	2	30
Jacobabad	27	3	30
Kashmore	28	2	30
Khairpur	12	1	13
Larkana	20	8	28
Mirpurkhas	19	1	20
Qambar Shahdadkot	14	14	28
Sukkur	24	6	30
Thatta	15	15	30
Umerkot	30	0	30
Total	246	53	299

Reasons for No Output in 2010 and Average Affected Land Table 23

	All		Used No Land Before Title		Used Some Land Before Title		Used All Land Before Title	
	N	Avg.	N	Avg.	N	Avg.	N	Avg.
Land Flooded	24	8	12	9	9	6	3	7
No Possession	1	4	1	4	-	-	-	-
Non-Availability of Water	12	7	12	7	-	-	-	-
Water Logging/Salinity	11	6	9	6	1	3	1	3
Un-Levelling	10	5.9	10	5.9	-	-	-	-
Shortage of Manpower	1	6	1	6	-	-	-	-
Shortage of Funds	4	2	4	2	-	-	-	-
Regaining Fertility	1	1	1	1	-	-	-	-

No Output Produced in a Season

No Output Produced in Rabi

With regard to the 246 households that have been able to use land for farming, 19.5% (48 households) were unable to gain output during the Rabi season of 2010. Table 24 shows that these households are largely concentrated in Larkana and Umerkot, followed by Badin.

In addition to this, Table 25 shows that non-availability of water and water logging/salinity were the most important constraints on producing output in the Rabi season, followed by un-levelling, floods and a shortage of manpower. Half the cases of water logging/salinity are present in Larkana. Also, Umerkot and Badin together account for more than half of the households affected by non-availability of water.

No Output Produced in Kharif

With regard to the 246 households that have been able to use land for farming, as many as 32.5% (80 households) were unable to gain output during the Kharif season of 2010. Table 26 shows that Jacobabad, Ghotki, Kashmore and Qambar Shahdadkot account for the majority of such households.

In addition to this, as shown in Table 27 below, more than three fourth of households were affected by floods and non-availability of water. Floods also tend to affect more area than all other factors, which are similar to one another in this regard. The two respective constraints are followed by un-levelling, water logging/salinity, shortage of manpower, and a high cost of water.

Also it is useful to note that all households in Jacobabad that did not benefit from any output during Kharif were affected by the flood. Moreover, flooding is not a factor relevant to all districts. Instead it is solely concentrated in a mere three districts i.e. Jacobabad, Qambar Shahdadkot and Kashmore. Similarly, the factor ‘high cost of water’ was only reported by households from Ghotki. On the other hand, non-availability of water remains a factor relevant to most districts.

District-Wise: Whether Output was Produced in Rabi or Not Table 24

Districts	Output Produced in Rabi		
	Yes	No	Total
Badin	21	8	29
Ghotki	25	3	28
Jacobabad	24	3	27
Kashmore	28	0	28
Khairpur	23	0	12
Larkana	8	12	20
Mirpurkhas	17	2	19
Qambar Shahdadkot	10	4	14
Sukkur	19	5	24
Thatta	14	1	15
Umerkot	20	10	30
Total	198	48	246

Reason for No Output in Rabi and Average Affected Land Table 25

	All		Used No Land Before Title		Used Some Land Before Title		Used All Land Before Title	
	N	Avg.	N	Avg.	N	Avg.	N	Avg.
Land Flooded	3	5.1	2	5.5	1	5	-	-
Non-Availability of Water	15	5	7	3.5	7	6	1	8
High Cost of Water	8	6	5	4.5		-	3	8
Water Logging/Salinity	16	4.9	9	5	2	3	5	4
Un-Levelling	4	2.5	-	-	-	-	4	2.5
Shortage of Manpower	2	2.5	-	-	-	-	2	2.5

District-Wise: Whether Output was Produced in Kharif or Not Table 26

Districts	Output Produced in Kharif		
	Yes	No	Total
Badin	27	2	29
Ghotki	15	13	28
Jacobabad	3	24	27
Kashmore	17	11	28
Khairpur	7	5	12
Larkana	19	1	20
Mirpurkhas	15	4	19
Qambar Shahdadkot	5	9	14
Sukkur	17	7	24
Thatta	14	1	15
Umerkot	27	3	30
Total	166	80	246

Reason for No Output in Kharif and Average Affected Land Table 27

	All		Used No Land Before Title		Used Some Land Before Title		Used All Land Before Title	
	N	Avg.	N	Avg.	N	Avg.	N	Avg.
Land Flooded	37	6.3	26	6.8	5	6.5	6	5.4
Non-Availability of Water	24	4.5	11	4.9	7	6	6	2
High Cost of Water	2	4	-	-	-	-	2	4
Water Logging/Salinity	5	4	4	4	1	4	-	-
Un-Levelling	9	4.5	7	4.8	2	3.8	-	-
Shortage of Manpower	3	3.8	-	-	3	3.9	-	-

BENEFITS

To reiterate, benefits vary according to whether land was used before land title was awarded or not. The subsequent discussion on benefits is stratified accordingly. A section regarding all households, across the different categories, is also provided at the end of the discussion on benefits.

Beneficiary Category I: No Land Used Before Title

As mentioned above, output consumed and/or profits from output sold are measures of the benefit relevant to households that were awarded previously unutilised land. Table 28 summarises the benefits experienced by this category of households and subsequent analysis offers exposition.

Further, an analysis of these benefits is separated for the Rabi and Kharif seasons, respectively. To begin with, Table 29 shows that households grew a variety of crops in the Rabi season of 2010 but most households grew wheat. Mustard forms a distant second. More than one-half of wheat and rice was consumed and the remaining sold. The other crops were sold only.

However, it is pertinent to note that the profit for wheat is biased upwards by a fraction of households earning very high profits. Accordingly, the median may offer a better measure of central tendency for profit from wheat. It is PKR 30,000. In addition to this, minimum profits for each crop are listed below:

- Rice: PKR 12,000
- Wheat: PKR 3,000
- Sunflower: PKR 48,000
- Canola: PKR 7,200
- Mustard: PKR 3,000

Regarding the Kharif season, as shown by Table 30, most households produced rice and cotton. All household that produced rice, consumed it and about one-half of those households sold it as well. Cotton and sunflower was only sold. This introduced a new stream of income for these households.

However, one-half of the households experienced considerably lower profits than the average profit. The medians for rice and cotton are PKR 20,000 and PKR 90,000. The remaining households experience profits that significantly exceed the respective average. In addition to this, minimum profits for each crop are listed below:

- Rice: PKR 4,000
- Cotton: PKR 17,000
- Sunflower: PKR 105,600

Beneficiary Category II: Some Land Used Before Title

As abovementioned, this class of beneficiaries is hypothesised to benefit from an increase in productivity from the land which was already in use as well as in the form of output consumed or sold from land to which they have gained access under LHP. Table 31 summarises the benefits experienced by this category of households and subsequent analysis offers exposition.

Benefits: Category-I Table 28

	N	Avg.	Std. Deviation
Output Consumed (PKR)	122	32371.5	25255
Profit (PKR)	130	99864	125997.6
Total Benefit (PKR)	163	108536.4	129863.6

Output and Profit in Rabi Table 29

Rabi		Total Output (Mound)	Output Consumed (Mound)	Output Consumed (PKR)	% Output Consumed	Output Sold (Mound)	Profit (PKR)	Total Benefit (PKR)
Rice	N	6	6	6	6	4	4	6
	Avg.	142.5	35	30275	53.4	161.2	50146	90521
Cotton	N	1	-	-	-	1	1	1
	Avg.	80	-	-	-	80	176000	176000
Wheat	N	108	92	92	92	70	69	108
	Avg.	57.2	26.6	24543	62.2	51.4	38753	74600
Sunflower	N	4	-	-	-	4	4	4
	Avg.	51.3	-	-	-	51.3	106667	106667
Canola	N	2	-	-	-	2	2	2
	Avg.	29	-	-	-	29	43600	43600
Mustard	N	19	-	-	-	18	18	18
	Avg.	11	-	-	-	11	18522	18522

Output and Profit in Kharif Table 30

Kharif		Total Output (Mound)	Output Consumed (Mound)	Output Consumed (PKR)	% Output Consumed	Output Sold (Mound)	Profit (PKR)	Total Benefit (PKR)
Rice	N	69	67	67	67	38	38	69
	Avg.	88.4	28	24200	63.2	99.5	83004	108000
Cotton	N	43	-	-	-	43	43	43
	Avg.	54	-	-	-	52.7	119355	119355
Wheat	N	1	1	1	1	1	1	1
	Avg.	15	6	4932	40	9	7200	12132
Sunflower	N	2	-	-	-	2	2	2
	Avg.	104	-	-	-	104	251100	251100

Benefits: Category-II Table 31

	N	Avg.	Std. Deviation
Output Consumed (PKR)	20	24804.4	11684.2
Profit (PKR)	23	197893.5	320659
Total Benefit (PKR)	39	194140	314370.6

Benefits from Unutilised Land

The subsequent analysis has been done separately for Rabi and Kharif. Table 32 below provides a detailed account of benefits for the Rabi season. Wheat was produced by most households. Its output was both consumed and sold. However, the amount sold far exceeded the amount consumed, leading to significant profits. The few households that produced mustard and cotton sold all output.

However, more than 75% of households earned a lower than average profit. This figure has been biased upwards by a number of households that made considerable profits. The median value of PKR 24,500 offers a better measure of central tendency. In addition to this, minimum profits for each crop are listed below:

- Wheat: PKR 2,000
- Mustard: PKR 35,000

Regarding Kharif, benefits are detailed below. Table 33 shows that most households produced cotton, all of which was sold, leading to a significant stream of profit. Indeed, the profit from cotton far exceeds that earned from wheat in the Rabi season, although it does not supplement household consumption. The single household that produced wheat sold all the output, whereas rice was largely used for consumption by the few relevant households. In addition to this, minimum profits for each crop are listed below:

- Rice: PKR 15,000
- Cotton: PKR 18,000

Output and Profit in Rabi Table 32

Rabi		Total Output (Mound)	Output Consumed (Mound)	Output Consumed (PKR)	% Output Consumed	Output Sold (Mound)	Profit (PKR)	Total Benefit (PKR)
Cotton	N	1	-	-	-	1	1	1
	Avg.	40	-	-	-	40	32000	32000
Wheat	N	20	17	17	17	17	17	20
	Avg.	80	28.5	25137	35	72.6	69759	102564
Mustard	N	2	-	-	-	2	2	2
	Avg.	54	-	-	-	54	35000	35000

Output and Profit in Kharif Table 33

Kharif		Total Output (Mound)	Output Consumed (Mound)	Output Consumed (PKR)	% Output Consumed	Output Sold (Mound)	Profit (PKR)	Total Benefit (PKR)
Rice	N	5	40	4	4	2	2	5
	Avg.	24	20	17200	82	20	22000	22560
Cotton	N	15	-	-	-	15	15	15
	Avg.	94	-	-	-	94	115627	115627
Wheat	N	1	-	-	-	1	1	1
	Avg.	36	-	-	-	36	108000	108000

Benefits from Previously Utilised Land

Changes in yield have been considered separately for the Rabi and Kharif seasons. Regarding Rabi, Table 34 shows that for both reference periods wheat was largely grown followed by mustard. In addition to this, Table 35 clearly shows the yields of both crops are virtually the same for the different reference periods.

Regarding the Kharif seasons of both the reference periods, Table 36 clearly shows that cotton was grown by most households followed by rice. Wheat was only grown by a single household prior to the intervention but it switched to cotton in 2010. The following Table 37 shows that cotton yield increased over time. However, the change was evaluated through a Paired-Sample T-Test and a P=0.4 shows that the change is statistically insignificant.

Beneficiary Category III: All Land Used Before Title

As mentioned above, the hypothesised benefit of being granted title to land a household had prior access is an increase in productivity, which shall be measured in terms of an increase in yield. The subsequent analysis shall treat both seasons separately, beginning with Rabi.

During the Rabi season, the crops grown in 2010 and the year prior to the award of title are shown. The primary crop grown in the season was by and large wheat, followed by sunflower and mustard.

Table 39 compares the three respective crops' yields with reference to the abovementioned reference periods. It shows that yields were virtually unchanged for wheat and sunflower, but increased for Mustard.

Rabi Crops Table 34

Year 2010	Year before land title				
	Rice	Cotton	Wheat	Mustard	Total
Cotton	-	-	-	1	1
Wheat	1	1	17	-	19
Mustard	-	-	-	3	3
Total	1	1	17	4	23

Crops Yield Table 35

		2010	Year Before Land Title
Wheat	N	17	17
	Avg.	18.8	18.1
	Std. Deviation	9.1	8.9
Mustard	N	3	4
	Avg.	5.3	5.7
	Std. Deviation	5.8	6.3

Kharif Crops Table 36

Year 2010	Year before land title		
	Rice	Cotton	Total
Rice	5	-	5
Cotton	-	15	15
Wheat	-	1	1
Total	5	16	21

Crops Yield Table 37

		2010	Year Before Land Title
Rice	N	5	5
	Avg.	23	37
	Std. Deviation	2.7	21
Cotton	N	15	15
	Avg.	21.5	16.3
	Std. Deviation	23.4	8.3

However, a Paired-Samples T-Test was conducted to evaluate this change. The change is not statistically significant as P=0.08.

Regarding the Kharif season, the crops grown are given below, with a predominance of rice.

An analysis of a change in yield, shown in Table 41 below, reveals an increase in the yield of rice. A Paired-Samples T-Test was conducted to evaluate this change. It is statistically significant as P=0.04. The change may have been caused by improvement in seed quality. All those who received rice seeds under LHP experienced an increase in yield.

Rabi Crops Table 38

Year 2010	Year Before Land Title					
	Rice	Wheat	Sugarcane	Sunflower	Mustard	Total
Rice	1	-	-	-	-	1
Cotton	-	1	-	-	-	1
Wheat	-	23	-	-	2	25
Sugarcane	-	-	1	-	-	1
Sunflower	-	-	-	4	-	4
Mustard	-	2	-	-	1	3
Total	1	26	1	4	3	35

Crop Yields Table 39

		N	Avg.	Std. Deviation
Wheat	2010	25	13.1	9.2
	Year Before Land Title	26	12.6	8.5
Sunflower	2010	4	14	8.2
	Year Before Land Title	4	11.5	9.1
Mustard	2010	4	4.7	6.3
	Year Before Land Title	3	2.6	3
Total				

Kharif Crops Table 40

Year 2010	Year before land title		
	Rice	Cotton	Total
Rice	21	0	21
Cotton	1	5	6
Total	22	5	27

Table 42 gives the number of households that experienced an increase in yield and the average amount by which yield increases. It also gives a district-wise breakdown, which clearly shows that these households are largely concentrated in Badin and Khairpur.

The increase in yield has, in turn, led to a rise in total output, which has mostly translated into higher output consumed and profits. This is outlined in Table 43 below.

Crops Yield Table 41

		2010	Year Before Land Title
Rice	N	21	22
	Avg.	30.2	22.2
	Std. Deviation	16.2	11.1
Cotton	N	6	6
	Avg.	18.3	18.1
	Std. Deviation	4.1	6.5

Change in Rice Yield Table 42

	N	Avg. (Mound)	Std. Deviation
All Districts	16	10.6	12.3
Badin	7	21.1	12.3
Ghotki	1	2	-
Khairpur	4	2.5	.57
Larkana	1	2	-
Mirpurkhas	1	2	-
Qambar Shahdadkot	1	2	-
Thatta	1	5	-

Change in Rice Output and Profit Table 43

	N	Avg.	Std. Deviation
Change in Total Output (Mound)	16	74.7	100.5
Change in Output Consumed (Mound)	10	6.2	15.5
Change in Output Consumed (PKR)	10	7266	12429
Change in Output Sold (Mound)	16	65.3	99.2
Change in Profit (PKR)	16	26491	17630
Total Benefit (PKR)	16	34280	16300

All Households

Table 44 provides a summary of benefits experienced by households from all categories. It is useful to recap that the number of households that experienced benefit consists of all 202 households from the first two categories that were successful in producing output as well as 16 households from the third category.

It is useful to note that the standard deviations for profit and accordingly total benefit exceed corresponding averages, which suggest a high level of variance. Percentiles given in Table 45 provide a better insight into the varying levels of profit and total benefit that households enjoyed.

In addition to this, Table 46 stratifies total benefit in terms of districts. It shows that Khairpur, Qambar Shahdadkot and Thatta have by far the least number of beneficiaries. The number of beneficiaries in these districts is below one-third of the sample. This is a product of both households that were unable to produce output and a concentration of households in the third category that failed to experience increased yield.

Moreover, it shows large variations in the size of benefit. In fact most districts fall into two categories i.e. districts where total benefit is considerably above average and districts where total benefit is considerably lower than average. Thatta, Umerkot, Badin and Mirpurkhas fall into the former whereas Jacobabad, Qambar Shahdadkot, Khairpur, Ghotki and Larkana fall into the latter. In Kashmore and Sukkur most households experienced slightly below par benefits. Hence, the average for total benefit is biased upwards by values concentrated in four districts.

Benefits: All Households Table 44

	N	% of Total Households	Avg.	Std. Deviation
Output Consumed (PKR)	152	46	29724	24078
Profit (PKR)	169	51	113577	169112
Total Benefit (PKR)	218	66	119760	167937

Distribution of Benefits: All Households Table 45

	Output Consumed (PKR)	Profit (PKR)	Total Benefit (PKR)
Minimum	2000	2000	3000
Maximum	192680	1382250	1435170
Percentiles 25	14756	19600	23906
50	24797	48000	60790
75	39350	161900	143490
% Households Below Average	60	71.6	68.2

Average Total Benefit: District Wise Table 46

District	N	Avg.	Std. Deviation
Badin	27	177490	167582
Ghotki	24	40569	40739
Jacobabad	25	19782	15412.
Kashmore	29	103675	159030
Khairpur	7	27018	22773
Larkana	18	44806	52705
Mirpurkhas	17	148734	129411.4
Qambar Shahdadkot	8	26819	22464.8
Sukkur	25	106231	108451
Thatta	9	365580	378943
Umerkot	28	196881	81586

07

LABOUR

HOUSEHOLDS LABOUR

Table 47 shows the employment status of members of beneficiary households for two reference periods: the year before LHP and 2010, which signifies the situation after LHP. It is important to emphasise that the figures given are for all members of beneficiary households and not solely for individuals awarded title to land i.e. direct beneficiaries.

Table 48 does not show three occupations as they accounted for few workers i.e. businesses, private jobs and government service. These occupations accounted for 32, 14 and 6 workers before LHP. Subsequently, 16, 9, and 1 of those working in these occupations switched to LHP land. The data reported shows that most workers were involved in sharecropping, farm labour and household work before the intervention. It also shows that a considerable number of beneficiary household members worked on their own land. However, this figure is only 4.5% for direct beneficiaries. Hence, 95.5% of the awardees were landless prior to LHP. Table 47 summarises impact on labour and stratifies it in terms of direct and indirect beneficiaries.

It shows that most workers moved from the previous occupations to working on LHP land. This movement or change is evident with regard to all occupations barring government service. It also shows that LHP is an important source of employment for new entrants into the labour force i.e. those who entered working ages after LHP. In addition to this, LHP has reduced unemployment by one-third. However, this does not include any of the direct beneficiaries. It is useful to note that all the stated figures do not vary significantly between males and females. Hence, LHP has by and large provided these benefits to men and women equally.

However, by switching from their previous occupations to LHP land, these workers have also forgone income from their previous occupations. On average, 315 workers forwent PKR 11,076. These workers relate to 227 households, which on average forewent an income of PKR 15,370. It is useful to note an important constraint: income forgone only includes monetary income. Any output consumed that may

Employment Status of Beneficiary Household Members Before and After LHP Table 47

	2010							
2007/ 2008	Household Work	Farming LHP Land	Farming Own Land	Sharecropper	Farm Labourer	Unemployed	Not of Working Age	Total
Household Work	115	51	1	1				168
Farming LHP Land	2	113						115
Farming Own Land	2	37	20		3			59
Sharecropper	2	77		19	8			106
Farm Labourer		273		1	35			309
Off-Farm Labourer		5						5
Unemployed		1				10		11
Not of Working Age		9					48	57
Total	121	489	21	21	46	10	48	756

Household Labour: Percentage Employed on LHP land Table 48

		Beneficiary Categories		
		All Beneficiaries	Direct Beneficiaries	Indirect Beneficiaries
Employment Status Before LHP	All Workers	67	62	76
	Household Work	30	32.6	26.7
	Farming Own Land	62.7	60	64
	Sharecropping	80	68.5	86
	Farm Labour	86	91	86
	Off-Farm Labour	100	100	100
	Unemployed	37.5	0	54
	Business	50	46	52.6
	Private Jobs	64	75	60
	Government Service	17	0	25
	Entrants into the Labour Force	100	100	100

HIRED LABOUR

Table 49 shows the average number of man-days created by LHP. Regarding utilised land, only changes in hired labour have been included.

Only in 2 districts did no household hire labour i.e. Ghotki and Kashmore. Also, the standard deviation for all districts exceeds the respective average, which suggests the presence of very high values. However, Table 50 below shows that most households indeed fall within the average given. However, as suggested by the maximum values given, there are households that claimed to have created more than 100 man-days. Indeed, they account for 18% of these household and range from 109 to 457 man-days. In addition to this, expenditure on hired labour was typically paid for through a household's own income, be it from other sources or LHP land. They account for 60% of households. The remaining households funded this expenditure either through credit or the sales of assets.

Haree working in Thatta

Average Man Days Created by LHP Table 49

District	N	Avg.	Std. Deviation
All Districts	50	59	89.7
Badin	8	33	45.1
Jacobabad	6	32	19.6
Khairpur	1	11	
Larkana	3	23	9.8
Mirpurkhas	10	92	81.8
Qambar Shahdadkot	2	26	12
Sukkur	5	55	35.4
Thatta	5	217	181.4
Umerkot	10	8	4.4

Distribution: Man-Days Table 50

Minimum		3
Maximum		457
Percentiles	25	10
	50	27
	75	59

08

IMPACT ON INCOME

So far the assessment has reported total benefit, which was an aggregate of the value of output consumed and profit. However, total benefit does not readily translate into a change in income. In order to measure a change in income, income from occupations forgone needs to be taken into account/subtracted from total benefit. This forgone income was reported in the preceding chapter i.e. Impact on Labour.

Table 51 shows changes in income. It shows that on average households experienced a rise in income slightly in excess of PKR 100,000. However, this figure should be treated with the same caution afforded to averages for profits and total benefit. The respective average is lower than its corresponding standard deviation, which suggests a high level of variance. Percentiles given in Table 52 provide a more detailed picture of the changes in income experienced by different households.

In addition to this, the respective average conceals that 3.3% (N=11) households experienced a reduction in income. Average reduction in income is PKR 5,213. 9 households experienced a reduction in income as they were unable to produce any output in 2010 due to floods.

Impact on Income Table 51

District	N	Avg.	Std. Deviation
All Districts	227	104085	163081
Badin	27	163282	165042
Ghotki	25	30896	38552
Jacobabad	30	9882	12044
Kashmore	29	85318	156793
Khairpur	7	22132	18845
Larkana	19	32138	42127
Mirpurkhas	18	121785	117049
Qambar Shahdadkot	10	19644	24438
Sukkur	25	93457	105938
Thatta	9	320075	369944
Umerkot	28	176940	84183

Distribution: Impact on Income Table 52

Minimum		-11000
Maximum		1383170
Percentiles	25	15900
	50	44280
	75	131760

Wheat output
in Khairpur

09

IMPACT ON POWER

The aim of this chapter is to analyse the impact of LHP on the ability of a beneficiary household to translate choices or aspirations into desired actions and outcomes i.e. power. The impact of LHP on power is expressed in terms of empowerment and disempowerment i.e. improvement and deterioration in the ability to make effective choices.

The framework adopted by this study for analysing LHP's impact on power posits that empowerment or disempowerment take place within the following domains and sub-domains:

i. Market: in which the person is an economic actor. Accordingly, changes in the beneficiary household's ability to make effective choices in the sub-domains of goods (including property), credit and labour shall be analysed.
ii. Society: in which a person is a social actor. The ability of beneficiaries to make effective choices in the sub-domains of household and the community shall be explored.

This understanding of power evidently entails that the reported increases in income as well as changes in employment status are instances of empowerment. An increase in income is an increase in one's claim over resources and a change in employment status is evidence of one's ability to make effective choices in this regard. This chapter adds value by investigating how these instances of empowerment have further impacted power within the given sub-domains. Moreover, it investigates if and how title to land may impact power.

Beneficiaries were asked what benefits - tangible or intangible - that they experienced due to holding title to land and the resultant increase in income (if any). Subsequently all responses were tallied and are given in the subsequent analysis.

DOMAIN: MARKET

Sub-Domain: Goods

Table 53 shows the number of households that (i) increased saving and (ii) that bought goods and services. It shows that one-fifth of households that experienced an increase in income chose to save. It also shows that most households spent on food. This suggests that many households are trying to move out of extreme poverty. The remaining categories show that remaining households channelled their increased ability to purchase towards building assets i.e. human capital, livestock and housing. A minority bought consumer durables that consist of 5 motorcycles, 4 televisions, 2 mobile phones, 2 fridges and 1 car. Households also built 3 shops and 2 mosques, and 4 households bought 'gifts', all of which have not been classified in Table 53.

With regard to property, 11 households that were already using land claimed that the award of title had granted them security of tenure. This is captured by the following quote by Mr. Gul Jan from Umerkot:

'I used to fear that someone would displace us (from the land) or take away our crops. Now, I feel as a landlord and most people have wished me well (after the award of land title).'

Number of Households that Bought Goods and Services Table 53

	Frequency	% of Households with Increased Income	% of Total Households
Saving	44	20	13.3
Food	76	35	23
Children's Education	20	9.2	6.6
Children's Marriage	13	6	4
Healthcare	7	3.2	2.1
Livestock	20	9.2	6.6
Housing	13	6	4
Consumer Durables	14	6.4	4.2

Benefits: All Households Table 54

	N	% of Total Households	Avg.	Std. Deviation
Output Consumed (PKR)	152	46	29724	24078
Profit (PKR)	169	51	113577	169112
Total Benefit (PKR)	218	66	119760	167937

Sub-Domain: Credit

66 households claim that they do not require further credit as their needs are met by output consumed and income from LHP land. In addition to this, 27 households claim to have repaid their loans.

Sub-Domain: Labour

93 respondents reported enhanced ability to make decisions regarding the terms and conditions under which they worked. The following testimonies by Mr. Jijan and Mr. Hashim, both of whom are from Larkana, by and large summarise the various descriptions respondents gave of the terms and conditions they faced before and after LHP:

"Before, my whole family used to work on others' lands. They (the landowners) would scold us and make us work as servants. We would do all the work even if we were ill and still we would get half of the output. We would have nothing left once we had paid our costs and loans. Now I work on my own land for only as long as I have to. I enjoy labour now because I gain its full reward."

"We could never work in one place for long because they would make us leave the land over the smallest mistake. Now we farm our own land and we are happily settled here."

The first testimony describes an abusive work environment, excessive work by adults as well as children and very low returns to labour. The second testimony emphasises the insecurity many workers faced. However, these testimonies also show that beneficiaries have been able to overcome this situation once they were awarded land.

The following testimony by Mr. Akbar shows that in some cases improved housing has supplemented self-employment in enabling workers to make such decisions:

“The residence the landowner would give us was like a prison. As long as we lived on his land, he would mistreat us and make us work for as long as he wanted. Now we have built our own house on our own land.”

DOMAIN: SOCIETY

Sub-Domain: Community

Social Inclusion

As many as 167 respondents claim that their households experienced many forms of social exclusion prior to the award of land title. A majority of these households state that social exclusion was deeply embedded in their everyday lives while others said that they were only unable to take part in festivals or that people were unwilling to marry their daughters. These three categories account for 125, 29, 13 households respectively.

Those who claim that social exclusion was part of their everyday lives typically use phrases such as “nameless”, “voiceless” and “low caste” to describe how they were viewed by members of their community. They claim that it was not uncommon for people to decline their invitations or even refuse to respond to their greetings. However, these households claim that subsequent to the award of title they were able to gain the acceptance of most of their community members, and were accordingly able to interact with their fellow community members with greater freedom. For example, the following quote by Ms. Rasheedan from Umerkot clearly captures this line of argument:

“After receiving land, my neighbours treat me with respect and they are very helpful. And my children are now beloved by everyone in the village.”

Some respondents claim that social inclusion was created by a transformation in identity. They claim that they were previously identified as landless sharecroppers and wage workers. Now, they are identified as landowners, and it is a convention to give landowners a voice in their respective communities. Indeed, the award of land title has granted these households a social status that is diametrically opposite to the one they had before - from being among those who sought access to land they have become one of those who provide access to land. However, these respondents also include 4 households that claim that although they already used land, using land without title led to their social exclusion. The following quote by Mr. Lalbai Khoso from Thatta offers exposition:

“The whole village knew that we had taken over land. No one used to think of us as good people and many people would not respect us. Now the same land has been given to us by the government. The same people who used to think we were wrong now spend time with us. They visit our house.”

Others claim that they no longer face social exclusion because they are either repaying their debts to their fellow community members or have enough income or consumption from land so as to not ask for further loans. Indeed, this line of argument ties social inclusion in part with the non-reliance on loans and the repayment of loans that was documented under the credit sub-domain. For instance, Ms. Naseeba from Sukkur states:

“Before we received land, we lived in hardship. If there was an emergency and we needed money, we would beg from others. They would always try to get rid of us... Now everyone pays us respect because we have money... we satisfy our wants from our savings.”

With reference to the inability of households to attend festivals or the unwillingness of others to marry into their daughters, respondents attributed these forms of exclusion to lowness of income and not landlessness. How lowness of income constrains households from participating in festivals is clearly shown in the following quote by Ms. Zainab from Thatta:

"Before increase in income, we could not go to any wedding etc. We did not have any good clothes and there was no money for gifts. Now, when anyone invites us to weddings etc, we get to attend."

Lowness of income is an evident constraint on marrying daughters in the given cultural settings. Weddings are typically expensive for poor households, especially when accompanied with a payment of dowry. However, the respective households claim that since their income has increased, they have either been able marry off their daughters or they have started to receive proposals. As many as 9 out of 13 households have been able to marry off their daughters with income from LHP.

Litigation

The sample included 3 households that have faced court cases, all of which are from Mirpurkhas. A brief description of each case follows:

i. The land allotted to Ms. Shirmati was already being used for farming by someone whom the awardee believes has greater "power" than her within the community. She initially lodged a court case but eventually withdrew as she feared reprisals. She stills works as a farm labourer.
ii. A local landowner has lodged a court case, claiming that the land allotted to Mr. Majeed was already his property. The awardee claims to have spent PKR 26,000 on the court case so far. The case remains unresolved and he currently works as a sharecropper.
iii. Mr. Karim is one of a number of awardees who are facing court cases from a single landowner. The awardee claims to have spent PKR 15,000 on the court case, but it remains unresolved. He currently works a sharecropper.

The first case clearly shows that the pre-existing power structures were reinforced due to the court case. The remaining cases entail disempowerment as awardees struggle to gain their entitlements. This disempowerment has been marked by the absence of formal institutions that can swiftly resolve such cases.

Sub-Domain: Household

Women s Empowerment

It is useful to note at the outset that this study has been able to capture only 27 cases of women's empowerment. This may in part be due to methodological constraints. Subjects as sensitive as gender are typically not covered in depth through mere reporting. However, the primary constraint on empowerment is that claim that the awarded land is collectively owned by the household rather than the individual beneficiary. As many as 81 households expressed this viewpoint.

21 female respondents claimed to have control over income from LHP land. This has allowed them to become financially self-sufficient. In other words, before income from LHP land, they depended on other household members to meet their requirements. Now they have become free from this relationship of dependence. This has also led to an improvement in the beneficiaries' self-esteem, as suggested by the following quote by Ms. Hawa from Thatta:

"Before (income from LHP land), our income was very low and I used to feel like a burden. I could not

even look after myself. However, since I have started earning my living standard has completely changed."

This benefit is particularly important with regard to women who are unable to work either due to being elderly and/or ill. 3 women who have gained financial self-sufficiency claim to fall into this category. The case of Ms. Fatima from Umerkot provides exposition:

"I am elderly and suffering from tuberculosis. A lot of money has been spent on me by my children but since we have started selling output from this land, I have paid for myself. I can easily afford better treatment and my sons don't have to work as much anymore."

Simultaneously, women have been able to channel the income they control towards expenditures they believe are in their benefit or in the benefit of their household. Women have typically made decisions on enhancing their own assets by buying livestock, jewellery and consumer durables. However, they have also supplemented such choices with expenditure on their children's - particularly their daughters' - education and health. Indeed, this implies that as a result of LHP, empowerment may not simply be experienced by immediate beneficiaries, but it may take an intergenerational form.

6 women also reported that they had gained voice and respect in their households. For instance Ms. Kunri from Umerkot states:

"My family did not let me make any household decisions. Now this is not the case. They know that they cannot impose their decisions on me anymore. I am a landowner now. My husband was also distant, but now he treasures me."

Similarly, Ms. Khan Bibi from Sukkur states:

"I am old and cannot work anymore. I did not have any say when it came to any decisions. But after I received land, everyone asks me for advice. No one took care of me either. Now my family takes very good care of me, especially my sons. I have been very happy ever since I was awarded this land."

Women s Disempowerment

There are 7 cases in which women reported being disempowered, all of which are from Thatta. In other words, women reported instances in which their ability to make decisions was diminished.

To begin with, 3 female beneficiaries reported that the travelling involved in gaining cash grants and agricultural inputs was against their desires as they practice purdah. Ms. Jumu states:

"Land should have been awarded to our men because we do not speak to men we do not know. We practice purdah when they are around. However, now we are now being forced to take seeds etc. Also, finding conveyance is very difficult."

The remaining 4 cases regard those women who have faced hostility by the men in their households because they tried to assert their rights over land. For instance, a beneficiary from Thatta states:

"To repay a loan my husband forced me to sell 2 acres of land. But it was in my name and I regret having sold it. I resisted. I told him (her husband) that we can pay day by day out of the labour we do for wages."

Family Cohesion

Beneficiary testimonies show that LHP contributed towards greater family cohesion. This was an opinion shared by 87 households. An exposition is given below.

To begin with, 51 beneficiaries reported that prior to income from LHP land most household members

would be deeply worried due to financial difficulties and this had a negative impact on family life. As Ms. Sodhi from Badin explains, at times such strife would lead to persistent conflicts at home:

“Before, no one liked one another at home. Everyone was concerned about money or loans. All of us would keep fighting with each other. Now half of our loan has been repaid and we are all full of hope. It is peaceful at home.”

Moreover, the land provided under LHP has allowed household members to work together on the same plot of land. This in turn has helped households to become more cogent units, when some of them may previously have been marred by a sense of separation and even conflict. As many as 21 households shared this viewpoint. The following quote from Ms. Saeeda from Kashmore describes this change:

“Before we were given land, we would have to travel long distances to get work. All of us were thinking of living separately from one another. But now we all work together and our love for one another has increased considerably.”

In addition, the following testimony by Mr. Muhammad from Sukkur describes how land may play a role played in resolving household conflict:

“Before, my brothers and my sons would continuously argue. Because of this, no one in society respected us. Since we have been given land, no one fights in our family anymore. They only spend their time working on the land.”

11 female respondents claim that due to a reduction in workload, they are now able to give their family, especially their children more time. As Ms. Razika from Thatta states:

“Before this I could not pay attention to my home or my children...I could not care for their health. Now I care (for my children’s health) as much as possible. My husband also becomes very happy when I pay attention to my children. Now we all can love one another.”

In addition to this, 4 respondents state that work on land has allowed family members to relinquish dependence on other members. This is encapsulated in the following quote by Ms. Bano from Umerkot:

“After we received land, all members - male members - who were capable of working have started working. They did not work on others’ land and would sit at home. Now they work (on awarded land) with their heart and soul.”

10

SYNTHESIS OF RESULTS

This chapter aims to synthesise results presented in the assessment. However, it is useful to briefly recap the background, aims and methodology of this assessment. LHP is a GoS project that aimed to (i) provide public land to landless agricultural workers (harees) and (ii) subsequently provide them with institutional support through 3 RSPs i.e. SRSO, NRSP and TRDP. The project spans 17 districts of Sindh. The aim of this study is to assess project's impact on output consumed, profits, labour, income and power. For this purpose it adopted a simple before and after design. Accordingly it took two reference periods: the year before land allotment and 2010. 30 households were selected through simple random sampling from each of the 11 districts nominated by Sindh RSPs' Consortium, resulting in a sample size of 330 households. The assessment does not assess how land was allotted and it does not use in-depth qualitative methods such as participant observation to assess the impact on power. Both of these gaps require future research. All subsequent analysis pertains to the 330 sample households.

DEMOGRAPHIC PROFILE

Three-fourths of all beneficiaries are female. The average size of a beneficiary household is 8. Households typically have more males than females on average. Three-fourths of awardees are CO members.

LAND ALLOTMENT

Land was allotted in the years 2008 and 2009. Most SRSO beneficiaries were allotted land in 2009. Two-thirds of all households did not use land prior to the award of title. (Their occupations before and after LHP are analysed in the subsequent section on labour.) The remaining households either used some or all of the land prior to the award of title. The average size of land allotted is 8 acres.

INSTITUTIONAL SUPPORT

Cash grants were provided to three-fourths of all households. The average amount was PKR 24,250. However, cash grants, which were meant for the development of unutilised land, were also provided to 60% of households that were using all of the land prior to award of title. One-half of households received seeds and fertilizers whereas only one-third received pesticides and weedicides. Seeds were mostly given for rice and wheat, followed by cotton. Agricultural Officers visited almost all households and were contacted by about one-half of all households. They largely provided advice on land development and the use of seeds as well as fertilizers. Almost all households were satisfied with the technical support they were provided.

LAND DEVELOPMENT AND IRRIGATION

Land was developed by 90.5% of all households. On average households developed 5 acres or three-fourths of the awarded land. Three-fourths of all households supplemented cash grants with investment in order to develop land. The average amount invested is PKR 30,031 once four outliers are removed. The size of land developed has a positive relationship with both the amount invested and the receipt of cash grant. However, in order to invest in land, three-fourths of all households either took loans or sold assets. The households that were unable to develop land were unable to do as they did not receive cash grants or they were facing court cases. This finding emphasises the importance of cash grants - households that do not receive cash grants are less likely to undertake land development. Regarding irrigation, 9 households invested in tube wells, which on average cost PKR 177,000.

IMPACT ON OUTPUT AND PROFITS

The hypothesised benefits differ for land utilised prior to LHP and unutilised land. For the former, it is assumed that the security of tenure created by land title will encourage investment in land and result in

an increase in yield. Yield may also increase due to the agricultural inputs provided. The resultant increase in output consumed and profits are seen as benefits. For unutilised land total output consumed and profit are seen as benefits. Results show that all households that had unutilised land that were able to produce output benefitted, whereas only 16 households benefitted from unutilised land. These 16 households experienced an increase in yield due to the quality of rice seeds provided to them under LHP. Table 54 below provides the proportion of households that benefitted from LHP, and averages for each benefit. It is useful to note that variable costs were excluded when valuing consumption and profits. However, these costs were highly subsidised due to the provision of agricultural inputs. Table 54 shows that two-thirds of households benefitted, and on average the benefits easily exceed PKR 100,000.

IMPACT ON LABOUR

Before LHP, 95.5% of all households owned no farmland and 73% of workers that did not have prior access to LHP were employed as either farm labourers or sharecroppers. The remaining workers were by and large involved in household work. After LHP, two-thirds of these workers moved from their previous occupations to working on LHP land. 84.5% of farm labourers and sharecroppers became self-employed and one-third of those involved in household work also started working on LHP land. In addition to this unemployment fell by 37.5% and LHP provided employment to all those who entered working ages after land title was awarded. LHP has undoubtedly proved to be an effective source of employment and self-employment. However, households also forwent income from their previous occupations. On average, 315 workers forwent PKR 11,076. These workers relate to 227 households, which on average forewent an income of PKR 15,370. With regard to hired labour, 50 households created 52 man-days each. In total, 2,600 man-days were created.

IMPACT ON INCOME

In order to measure a change in income, income from occupations forgone needs to be subtracted from total benefit. On average, 227 household experienced a rise in income of PKR 104,085. However, 3.3% or 11 households experienced a reduction in income largely because they were unable to produce any output in 2010 due to floods.

IMPACT ON POWER

Power refers to the ability to make effective choices. These choices relate to the domains of market and society. Empowerment is an improvement in this ability and disempowerment is the converse. Accordingly, the reported increases in income as well as changes in employment status are instances of empowerment. An increase in income is an increase in one's ability to claim resources and a change in employment status is evidence of one's ability to make effective choices in this regard. The respective chapter added value by investigating how these instances of empowerment further impacted power within the given domains. Moreover, it showed if and how title to land may impact power.

Regarding the market domain, households increased their savings, and through expenditure increased food intake and built assets i.e. human capital (via investment in health and education), livestock and housing. Many of those who used land prior to LHP reported that the award of title had granted them security of tenure. Also, increased income allowed households to either repay debts or end their reliance on debts. Self-employment allowed workers to emancipate themselves from exploitative terms and conditions, which entailed verbal abuse, excessive work of all family members with very low reward, and extremely insecure employment.

With regard to the domain of society, many households reported that reduced indebtedness or their newly acquired status of landowners has freed them from social exclusion. Social exclusion was suffered by many in almost every facet of life, while others experienced social exclusion in the form of their inability to attend festivals or the unwillingness of others to marry their daughters. However, court cases on awarded land also entailed that some households were disallowed their entitlements by more powerful community members. Some women also became empowered due to their control over income from LHP land. This implied both a lack of financial dependence on other household members and an enhancement in their ability to invest in individual as well as household assets. Other women claimed to have experienced empowerment in the form of increased voice and respect within the household. However, a major constraint on women's empowerment was the assertion by the awardees themselves that the awarded land is a collective household asset and not the woman's individual asset. Moreover, other women claimed that they were disempowered. Some claimed that they had been subjected to forced mobility i.e. in order to acquire cash grants and inputs, they as awardees were made to travel. They see this to be a violation of purdah. Other women claimed that they faced hostility by the men in their households because they tried to assert their rights over land. Lastly, family cohesion is also reported to have improved. LHP provided financial stability, which reduced conflict in the family. Working on the same plot of land had also allowed beneficiary household members to interact more with one another. In addition to this, dependence on one another reduced as everyone worked on LHP land and selected women said that they used their newly found free time to be with their children.

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