



IMPACT ASSESSMENT REPORT PROJECT HUNAR 2016-2018



PROJECT SUPPORTED BY

JOHN DEERE

Research Strategy, Design & Roll out by:
VIVA Development Strategies

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Contents

1. Executive Summary	3
2. Introduction	4
3. Research Aim.....	4
4. Research Objectives.....	4
5. Target Population and Sample Size	4
6. Data Collection.....	6
7. Data Management	7
7.1: Quantitative and Qualitative Data Analysis	7
7.2: Return on Investment (ROI)	8
7.3: Social Returns on Investment – Impact Framework (S-ROI)	8
8. Findings and Insights from Data Analysis	12
8.1: Economic Benefits	12
8.1.1: Employment status of alumni	12
8.1.2: Income growth	15
8.2: Impact of Training at Hunar	19
8.2.1: Effect of skills on employment/self-employment	19
8.2.2: Effect of training on improvement of farming practices	19
8.2.3: Effect of training on increasing alumni's ability to operate and perform basic mechanical repairs on their own tractor	20
8.3: Impact on Household Income	22
8.4.1: Alumni's purchases and personal expenses	23
8.4.3: Alumni as community influencers	25
9. Return on Investment (ROI).....	26
10. Social Returns of Investment.....	33
11. Conclusion	51

1. Executive Summary

The scope of the study is to identify the economic returns from Project Hunar over a period of 3 years, and to assess if there has been an upward, downward or static growth in alumni's income and employment status before and after completion of training at Hunar. The sample size for the impact assessment study was finalized at 664, exclusive of alumni whose contact numbers were not reachable. From a sample size of 664 alumni, a total of 400 alumni were surveyed and interviewed through telephonic surveys (366) and key informant interviews (34) respectively.

298 out of 400 alumni (74%) are currently employed/self-employed, of which 217 out of 400 (54%) are salaried employees and 81 out of 400 (20%) are self-employed. 102 out of 400 (20%) are unemployed, of which 42% of alumni have been unemployed for more than 1 year. 179 out of 400 (44.5%) alumni were employed/self-employed before joining Hunar, while 298 out of 400 (74.5%) alumni are currently employed/ self- employed after completing their training at Hunar, showing a growth in employment of 30%. For 80% of the alumni surveyed, their current occupation was their first job after completion of training.

298 out of 400 (74%) alumni are currently earning an income, of which 242 out of 298 (81%) alumni earn an income between INR 5001- INR 20,000, and 37 out of 298 (12%) alumni earn above INR 20,000.

For phase 1, the return is 68% or ROI is 1:0.68; for phase 2, the improved return is 92% or ROI is 1:0.92; therefore, cumulatively return is 75% or ROI is 1:0.75.

Around 68% of alumni's households have been alleviated from seasonal economic uncertainty through alumni's monthly contribution to their household income. Due to the training at Hunar, alumni have annually saved INR 4,164,149 and INR 2,238,456 from not hiring a tractor operator and mechanic respectively.

The social impact return calculated for Project Hunar is INR 49,348,972, for Annual Domestic Contribution by Alumni, INR 6,402,605 for Annual Savings of alumni families and INR 44,610,096 for alumni lifted out of Unemployment.

2. Introduction

The scope of the evaluation research study is to identify the economic returns from Project Hunar over a period of 3 years, and to assess if there has been an upward, downward or static growth in alumni's income and employment status before and after completion of training at Hunar. Inferences gained from the research through data analysis will be used to examine the presence of upward social mobility and the social impact return of training on alumni's individual and household income.

3. Research Aim

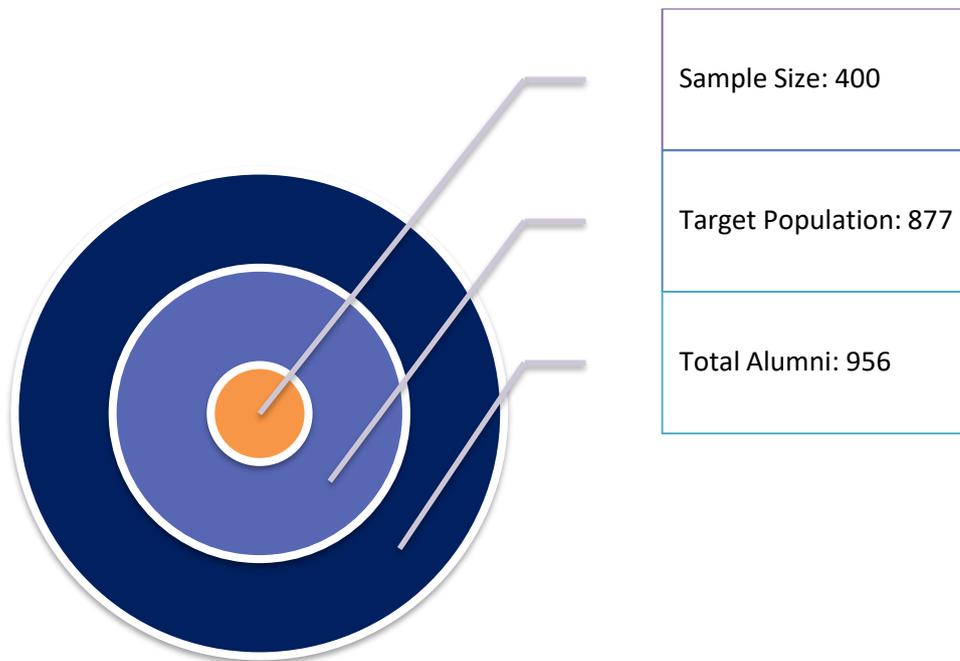
Objectively evaluate if Project Hunar has resulted in economic returns and a positive impact on social outcomes at an individual, family and community level.

4. Research Objectives

- Objectively evaluate the economic return and the impact of training provided on alumni trainees' employment status and monthly/annual income
- Understand the positive outcomes of training on trainees' occupation and socio-economic status at an individual and family level
- Recognize alumni trainees' circle of influence and extent of peer interaction resulting in candidates joining the course and/or improved brand awareness of John Deere tractors

5. Target Population and Sample Size

The total number of alumni who have completed their training from Project Hunar since project inception is 956. To assess impact of the training on alumni's income, alumni who are currently students studying B.Tech Agricultural Engineering especially from Bhopal were removed from the target population, thus totalling the target population to 877. The final sample size for the impact assessment study was finalized at 664, exclusive of alumni whose contact numbers were not reachable.



From a sample size of 664 alumni, a total of 400 alumni were surveyed and interviewed through telephonic surveys (366) and key informant interviews (34) respectively. The market wise representation of the total number of alumni covered is shown in figure 4.1, while figure 4.2 provides a location wise split of alumni covered through impact assessment. As indicated in figure 4.1, 60% of the total sample size (400 out of 664 alumni) was covered through the research.

Figure 5.1: Market wise sample representation

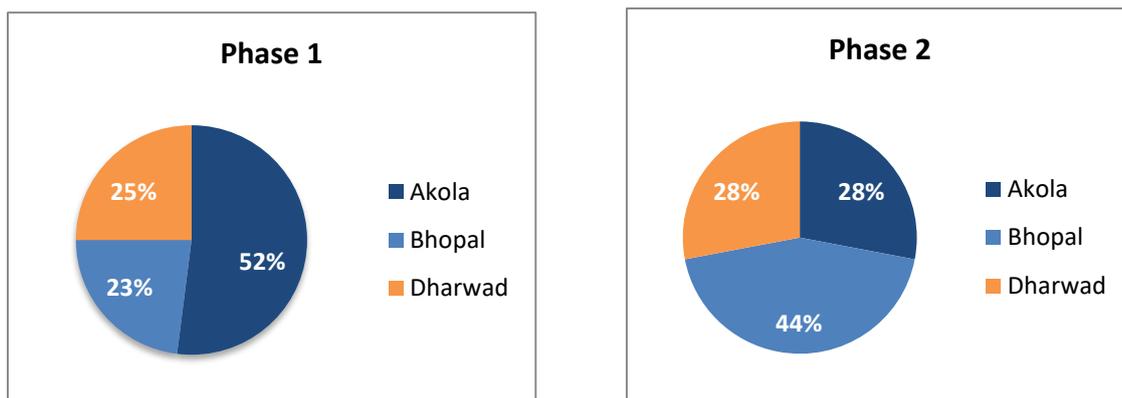
Location	Sample Size	Alumni Surveyed (Surveys)	Alumni Interviewed (KIIs)	Total Alumni Covered (count)	Total Alumni Covered (%)
Akola	197	142	12	154	78
Bhopal	233	129	10	139	60
Dharwad	234	95	12	107	46
Total	664	366	34	400	60

Figure 5.2: Location wise split of alumni covered



Project Hunar, a three-year project was executed in two phases, phase 1 from 2016-18 and phase 2 from 2018-19, where phase 2 was characterized with enhanced monitoring and evaluation matrices. To calculate the impact and economic return for each phase, a phase wise split of the alumni covered through the research is shown in figure 4.3, where 176 alumni from phase 1 and 224 alumni from phase 2 were covered.

Figure 5.3: Geographic split of respondent alumni covered in each Phase



6. Data Collection

As the data collected was primarily through telephonic interviews, an extensive guideline and instruction document was shared with every researcher, where each investigator was thoroughly briefed on how to introduce themselves during the survey, maintain confidentiality, and collect responses within a timeframe of 10-15 minutes. Basis the list of alumni shared per market, calls were made to each alumnus such that each call was tracked

daily and its status updates recorded on a call tracking sheet. Completed calls were timed and the time taken for each call was entered. Phone numbers that were disconnected, invalid, not reachable and wrong numbers were dropped; while alumni who did not respond or were busy at the time of the call were reattempted till responses were collected. After a total of 5 unsuccessful attempts the calls were dropped.

Numbers that were initially dropped were rechecked if they were reachable after a few days and reattempts were made before finally dropping them. Fresh calls were made to the corrected wrong and invalid numbers of alumni (as shared by the field teams).

Responses to each survey were collected and shared for data entry where the responses were coded and entered into the data entry document

7. Data Management

7.1: Quantitative and Qualitative Data Analysis

All the questionnaires were thoroughly checked for completeness before sending for data entry and analysis. Both quantitative and qualitative analysis involved labelling and coding all data. Statistical analysis for quantitative data was performed using SPSS 14.0. The qualitative data analysis was performed using Framework Analysis method, where responses and accounts of participants in the qualitative research study was analysed using a systematic, comprehensive, logical and intuitive approach that organizes qualitative data basis recurring themes and sub-themes. The analytical report developed is principally based on the responses given by respondents interviewed during the research, and all findings and insights stated in the report reflect reproductions of respondents' views, opinions and suggestions.

7.2: Return on Investment (ROI)

To calculate the Return on Investment (ROI) for Project Hunar, the formula used is as below:

$$\text{ROI} = \frac{\text{Net Profit}}{\text{Investment}} * 100 = \frac{\text{Incremental Income earned by alumni}}{\text{Total Project Investment and Cost incurred}} * 100$$

Net profit in this context reflects the value created by Project Hunar, which is the incremental income earned by alumni after completion of training at Project Hunar. Therefore, the ROI was calculated taking into consideration the incremental income earned, by subtracting the alumni's income before Hunar from their current income after completion of training at Hunar. The average incremental income was then multiplied by 12 months to arrive at the annual incremental income value, assuming that as of 2019, everyone who is employed/self-employed would have or will at least work for an average of 12 months. Since data on income was collected basis income categories, median income values have been taken for accuracy of calculations.

The ROI was calculated with 400 respondents. ROI for 877 alumni was calculated by extrapolating the data. Since the response rate for telephonic surveys was at 60% (similar to industry standard), the scope for non-response bias is minimal, and thereby reducing chances of inaccuracy from extrapolating biased data¹. To further minimize scope of error, recent data that is updated and current has been used to calculate the ROI on the sample size of 400, and extrapolate the same for 877². Thus a scientific and statistically sound approach has been used for calculating and extrapolating data results for ROI. Results for ROI are presented as a ratio (Investment: Return) and as return (Net profit/Investment * 100)

7.3: Social Returns on Investment – Impact Framework (S-ROI)

Over the course of the Impact Evaluation, it was observed that there were also distinct Social benefits as a direct result of the financial benefits affected by Project Hunar. These

¹ Sampling by David A. Freedman, Department of Statistics, University of California, Berkeley

² Extrapolation for time series and cross sectional data, by Scott Armstrong, The Wharton School, University of Pennsylvania

benefits occurred at a Household level and/or other socio economic spheres relevant to our beneficiaries and are as follows:

- **Upliftment from unemployment:** and brought into the formal/informal employment economy
- **Growth in Alumni Employability Basis Income:** even in those that were previously employed
- **Alumni HHs Alleviated from Seasonal Economic Uncertainty:** vulnerability arising out of regular seasonal cycles or unforeseen seasonal occurrences
- **Domestic Contributions by Alumni:** in a dependable manner to meet household expenses, education, savings etc.

- **Annual Savings from not Hiring a Tractor Mechanic/Operator:** directly arising out of skills acquired

All outputs, outcomes and impact measures calculated through the impact assessment exercise will be considered as 'Social Returns of Investment' for the purpose of this study. Using the 'Theory of Change' framework as an integral tool for measuring social impact, the outputs, outcomes and impact measures for the same have been determined through a systematic and logical approach. All three components illustrate a cause and effect relationship that demonstrates how the training provided at the Hunar centres has subsequently resulted in a gain in employment and thereby an income growth for alumni. Theory of Change therefore forms the foundation for calculating the social impact return for Project Hunar that is clearly defined and explained through the outputs, outcomes and impact that has been seen in the program as shown below.

Outputs

Output category 1: Indicators that enabled Alumni to be employed / self-employed: Skills training, On-the-job training, Certificate, Soft Skills, etc.

Social Outcomes:

Outcome category 1: Rise in Domestic Responsibility as a function of the ability to contribute to HH expenses and reduce domestic/family financial burden

Outcome category 2: Relief from economic uncertainty due to seasonality of agriculture, through a steady source of year round income

Outcome category 3: Reduction in house-hold expenses due to savings arising out of skills learned

Social Impact:

Impact category 1: Upliftment from Unemployment

Impact category 2: Growth in Employability

Calculations and Representation

1) Alumni's Contribution to Household Income:

- **Calculation:** From the total employed/self-employed alumni, only alumni who actively contribute to/support their household expenses were considered. The percentage of income contributed was collected and the resultant contribution was calculated basis the median income of each applicable respondent
- **Representation:** The value is expressed as the resultant total annual value of domestic contributions segregated by Market and Project Phase

2) Alumni HHs Alleviated from Seasonal Economic Uncertainty:

- **Calculation:** Only alumni who contribute to their household income every month or whenever the need arises (irrespective of seasonality) are considered and measured against the total alumni universe (including those who are unable to provide dependable financial support)
- **Representation:** This is expressed in percentage terms of the number of people able to provide monthly support and support as needed, vis-à-vis the total number of beneficiaries. This parameter is also expressed by Market and by Project Phase.

3) Annual Savings from not Hiring a Tractor Mechanic/Operator:

- **Calculation:** From the universe of respondents, only those respondents that own their own tractor were selected. Within this subset, only respondents that now drive their own tractors (hence saving tractor operator hire cost) or repair their own tractors

(hence saving on mechanic cost) were considered. Their annual savings were then calculated

- **Representation:** This is expressed as a total annual savings on Tractor Operator Hire and Tractor Mechanic; represented by Market and by Project Phase

4) Upliftment from unemployment:

- **Calculation:** Employment status of each alumnus was studied. Only employees who were completely unemployed prior to joining Project Hunar were considered and their current annual income post training was calculated.
- **Representation:** This is expressed as a numerical value that is a summation of incomes the beneficiaries who satisfy the relevant criteria. It is also expressed by Market and by Project Phase.

5) Growth in Alumni Employability Basis Income:

- **Calculation:** Pre-Hunar income figures of all employed/self-employed alumni were studied. These were compared with their current post-Hunar income levels.
- **Representation:** This is expressed in percentage growth terms. The calculation is also segregated to give Market wise and Project Phase wise clarity.

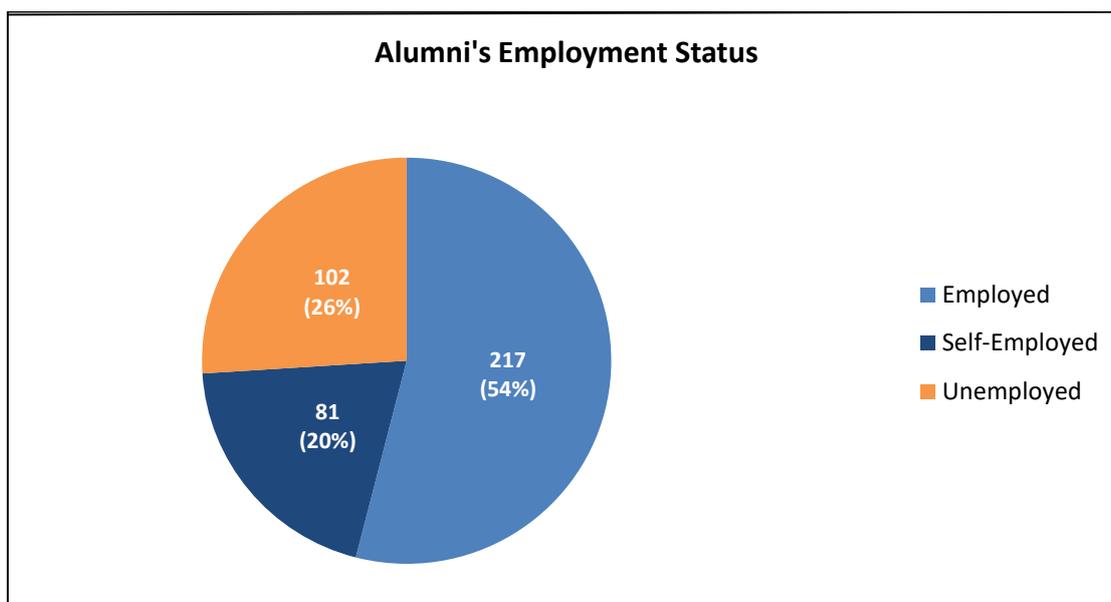
8. Findings and Insights from Data Analysis

The following section presents data findings and insights collected from telephonic survey and key informant interviews and are summarized under economic benefits, impact of training, impact on household income and social outcomes.

8.1: Economic Benefits

8.1.1: Employment status of alumni

Figure 8.1.1: Type of employment



298 out of 400 alumni (74%) are currently employed/self-employed, of which 217 out of 400 (54%) are salaried employees and 81 out of 400 (20%) are self-employed as shown in figure 8.1.1. 102 out of 400 (26%) are unemployed, of which 42% of alumni have been unemployed for more than 1 year. Most common reason cited for unemployment was 'not being able to find a well-paying job'.

Figure 8.1.2: Location and phase wise split of employment status

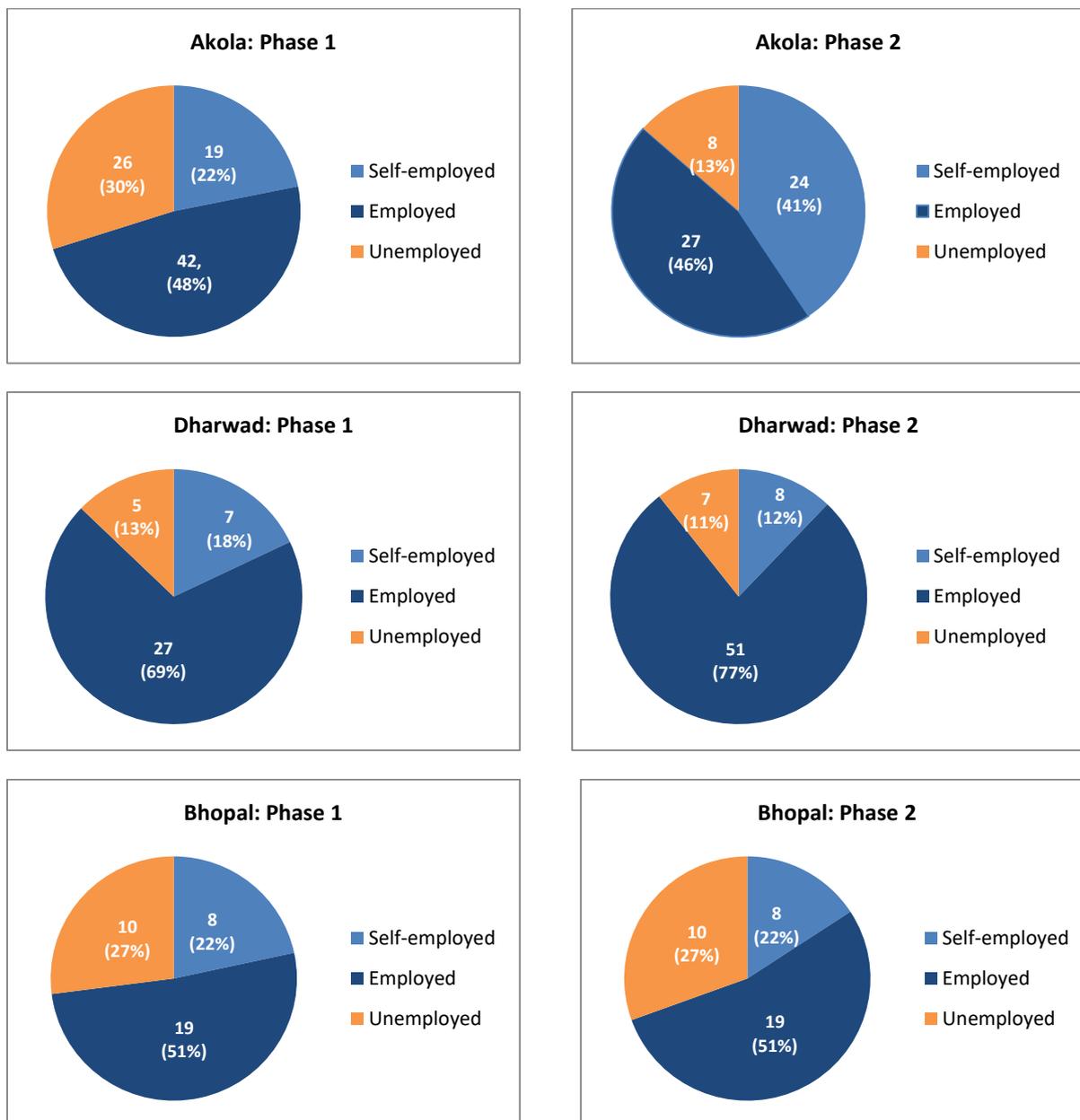


Figure 8.1.2 shows a location wise and phase wise split in alumni’s current employment status, where 75% of alumni (122 out of 163) from Phase 1 and 81% of alumni (176 out of 218) from Phase 2 were employed/self-employed. Hence, compared to sector standard of 70%, in practice the employment rate is at 78 %. Analysis of the data collected provides the following market wise insights – Akola sees a rise in self-employment in phase 2, Dharwad is high on salaried employment due to Marco-Polo with an improvement visible in phase 2, while Bhopal displayed maximum unemployment compared to other markets.

Figure 8.1.3: Comparison of employment before and after Hunar

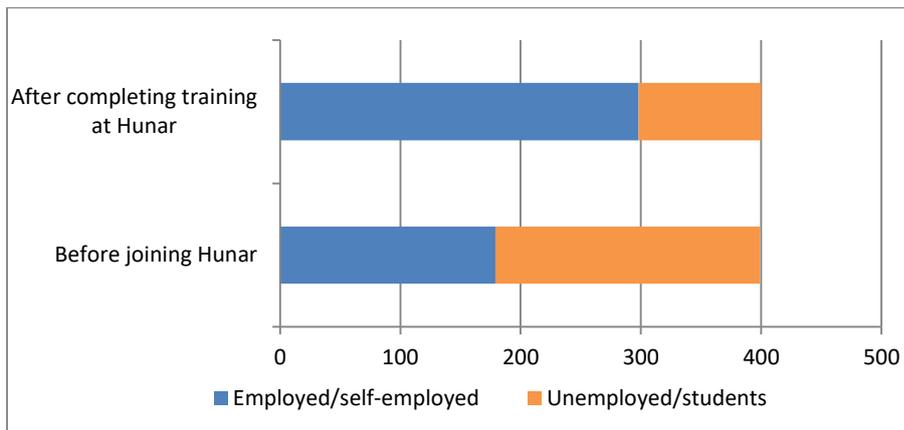


Figure 8.1.3 shows a comparison of employment status of alumni before joining Hunar and after completing training. As shown in the figure below, 179 out of 400 (44.5%) alumni were employed/self-employed before joining Hunar, while 298 out of 400 (74.5%) alumni are currently employed/ self- employed after completing their training at Hunar, which showcases a growth in employment of 30%.

Figure 8.1.4: Current occupation of alumni

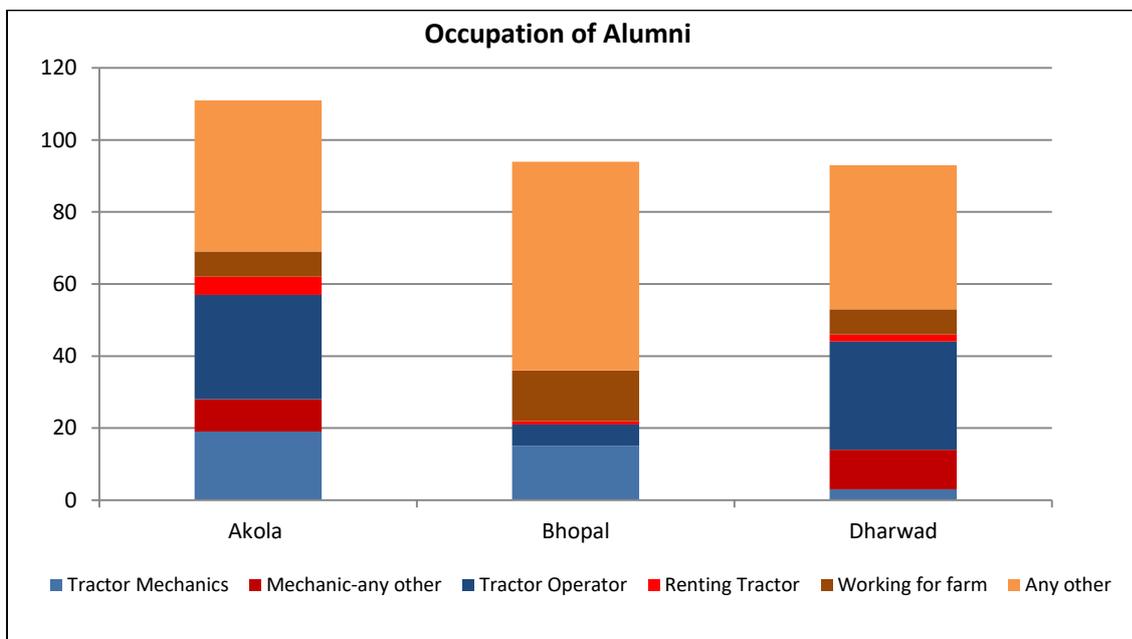
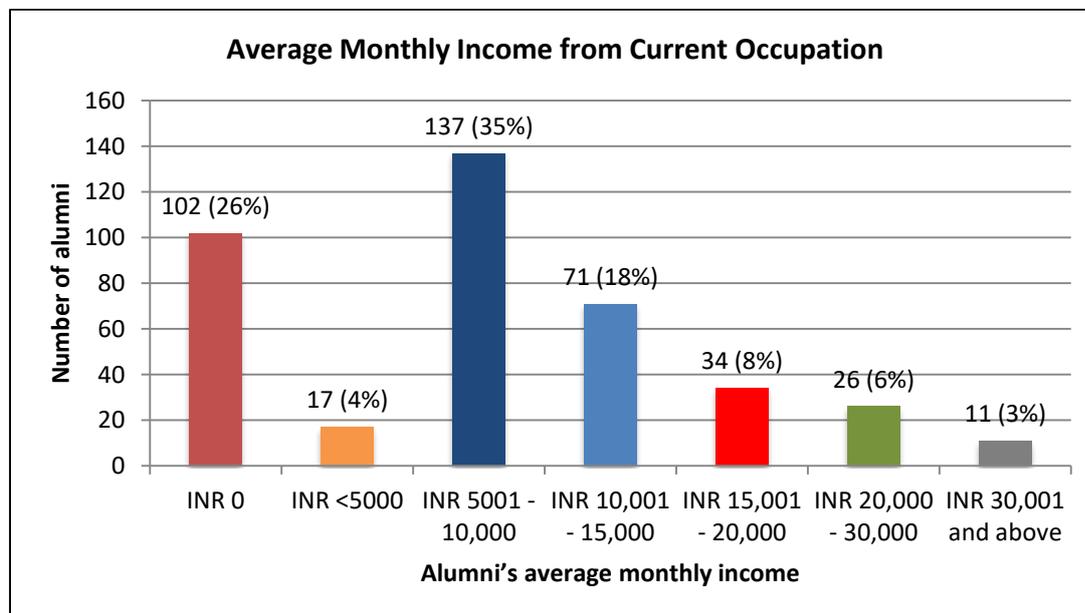


Figure 8.1.4 provides information on the occupation of alumni who are currently employed and self-employed. The data below has been presented location wise. 22% and 12% of alumni were tractor operators and tractor mechanics respectively. One alumnus in Bhopal is currently employed at ICAP and is a trainer for the tractor mechanic course at Bhopal Skill Development Centre. For 80% of the alumni surveyed, their current occupation was their first job after completion of training. Market wise insights indicate a mix of tractor mechanics and operators in Akola while Dharwad shows a skew towards tractor operators. Alumni from Bhopal more commonly work on their own farms or are employed/self-employed in other occupations beyond the tractor industry. Both Akola and Dharwad have alumni who are currently mechanics of 2 and/or 4 wheelers.

8.1.2: Income growth

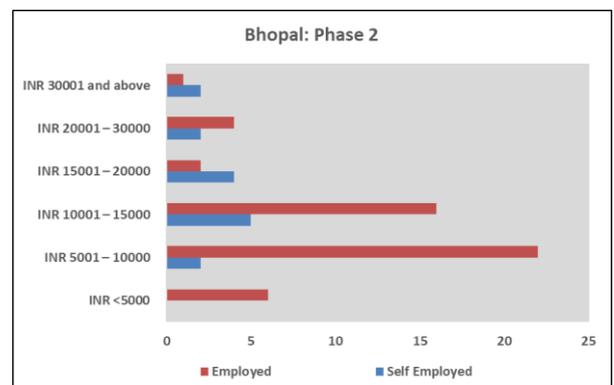
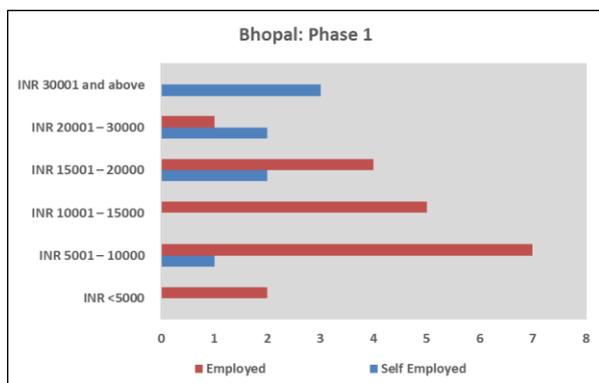
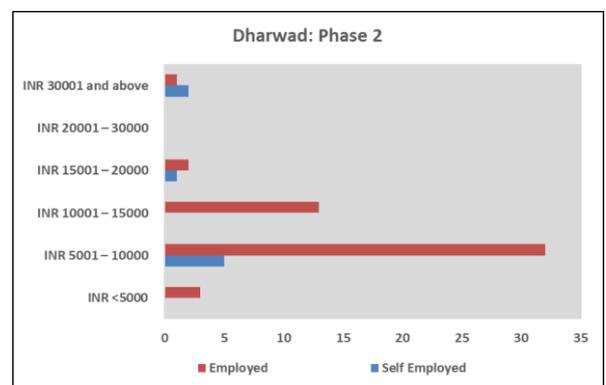
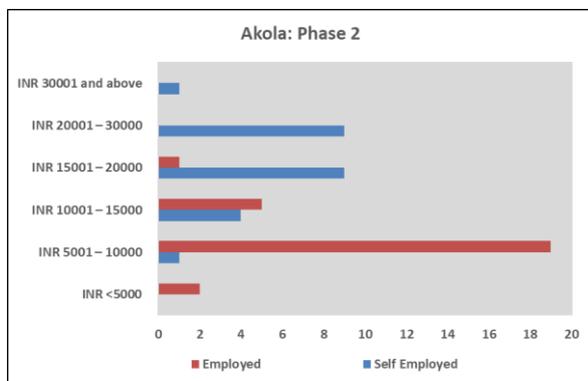
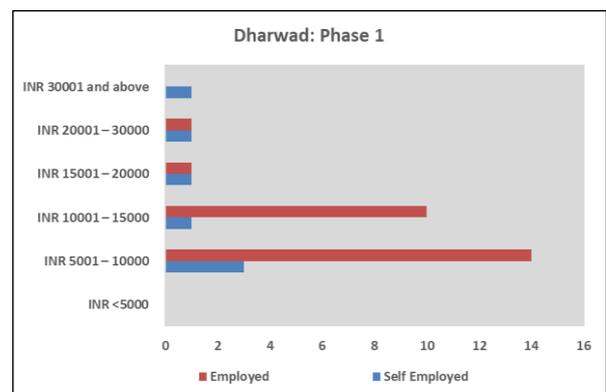
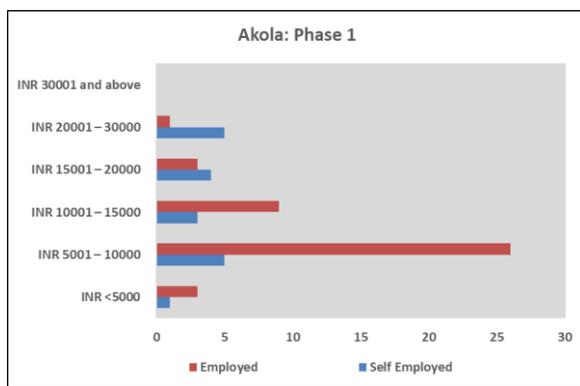
Figure 8.1.5: Average monthly income of alumni



The graph above (figure 8.1.5) displays income status of all respondents surveyed and interviewed, with income categories from INR 0 to INR 30,000 and above. 298

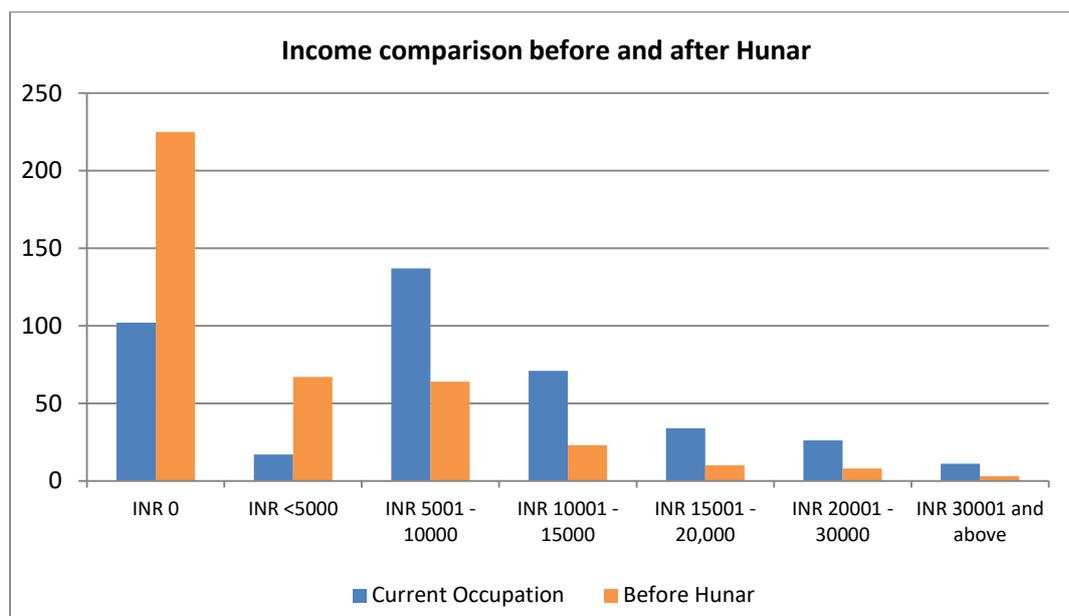
out of 400 (74%) alumni are currently earning an income. Out of the 102 alumni with no income, 83 are unemployed and 19 are currently students. 242 out of the 298 (81%) alumni earn an income between INR 5001- INR 20,000, and 37 out of 298 (12%) alumni earn above INR 20,000.

Figure 8.1.6: Location and phase wise split of alumni's average monthly income



The graphs above display income versus number of alumni in each income bracket with a split for employed and self-employed. The data is presented phase wise for each location. Basis the data the following market insights are recognized – at Akola, more people in the INR 5001 – INR 10,000 category in Phase 1 have moved towards higher income in Phase 2, and trends lean towards higher income for self-employed alumni from phase 2. At Dharwad, trends show income stagnating at INR 20,000 with few alumni at INR 30,000; and phase 1 and 2 are characterized by similar income levels. At Bhopal, self-employment with high income was prevalent in phase 1, with more number of alumni from phase 2 currently earning an income of INR 5001 – INR 15,000 compared to alumni from phase 1.

Figure 8.1.7: Comparison of income before and after Hunar



***Unanswered by 2 alumni**

The figure above (figure 8.1.7) showcases number of respondents under each income bracket. Trends show that before Hunar, 225 out of 400 (56%) were earning zero income, this figure reduced to 102 out of 400 (25%) after training. Therefore, Hunar has helped 123 out of 400 (25%) people get jobs due to the training. Current occupation row shows large numbers of 279 out of 400 (70%) in the INR 5001 to INR 30,000 income bracket, while before Hunar only 105 out of 400 (26%) were in the

same income bracket. 11 respondents are earning above INR 30,000 after completing their training at Hunar as opposed to only 3 respondents before joining Hunar. Therefore, Hunar has helped over 40% of the beneficiaries have higher income. Two alumni each interviewed in Akola and Bhopal, and three alumni interviewed in Dharwad cited an income growth of 50% compared post their training at Hunar compared to their income before Hunar.

Figure 8.1.8: Comparison of income before and after Hunar (location and phase wise split)

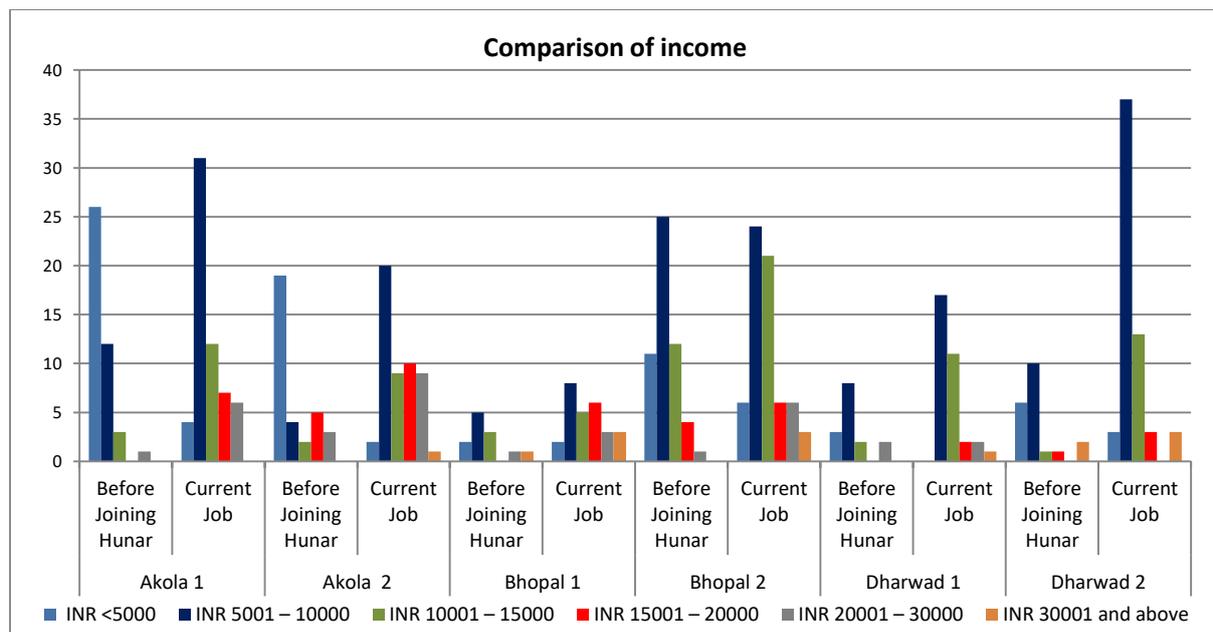


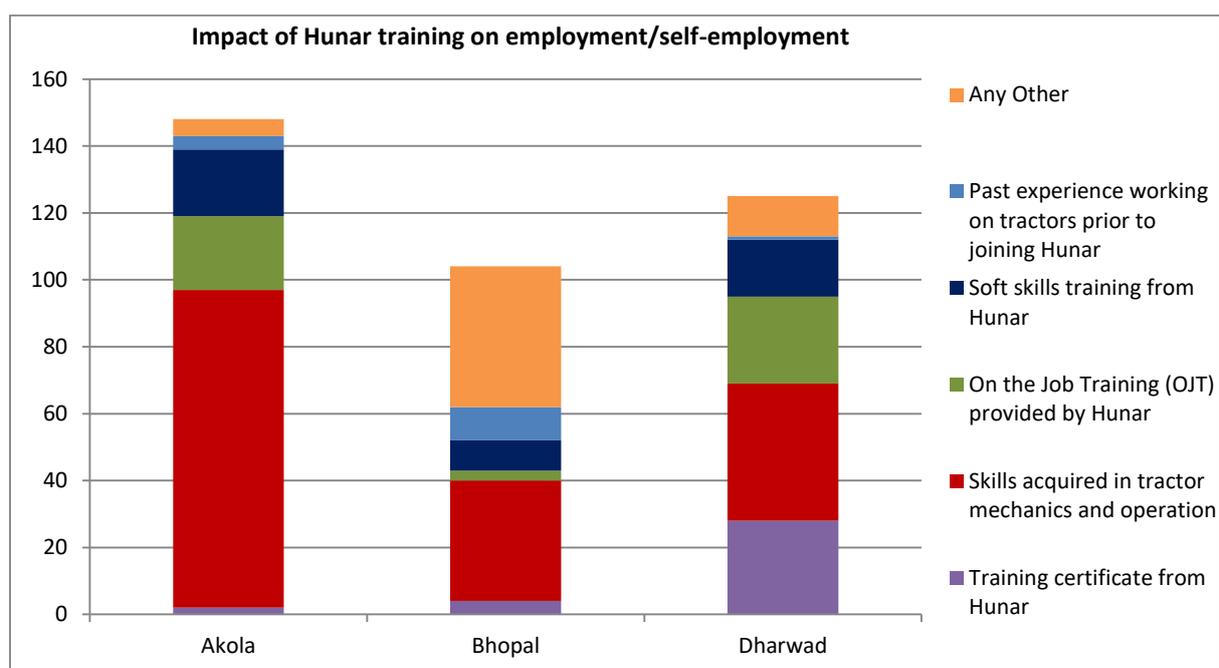
Figure 8.1.8 is a pictorial version of the previous figure (8.1.7), that displays the improvement in income for beneficiaries before and after completing training at Hunar, split location and phase wise. More employees were earning below INR 5000 before joining Hunar (blue bands), but currently more employees are earning between INR 10,001 – INR 15,000 bracket (green bands). Currently, more number of beneficiaries is earning more than INR 30,001 (orange bands) and between INR 20,001 to INR 30,000 as compared to their income before joining Hunar (sky blue bands).

Of the 298 alumni currently earning an income, 82% receive steady income throughout the year from their employment, while 12% and 6% earn a seasonal and ad-hoc income respectively.

8.2: Impact of Training at Hunar

8.2.1: Effect of skills on employment/self-employment

Figure 8.2.1: Effect of Hunar training on employment/self-employment



As shown in figure 8.2.1, 46% of alumni cited skills acquired in tractor mechanics and operation in helping them seek employment/self-employment, while 14% and 12% of alumni cited On the Job Training (OJT) provided by Hunar and soft skills training from Hunar as factors that helped them get a job at their current occupation. Tractor operator course has benefitted alumni by helping them either operate their own tractors with implements or rent out their tractors for additional income. Tractor mechanic course has helped alumni either start their own garages or repair and maintain their own/family owned tractors for better productivity. Post training, many self-employed alumni interviewed in Akola and Bhopal mentioned expanding their 2 wheeler garages to include tractor repairs as well.

8.2.2: Effect of training on improvement of farming practices

Of the 366 alumni surveyed, 263 have farms, of which 54% respondents mentioned an improvement in farming practices due to the training provided at Hunar. The tractor operator courses in particular has helped alumni from Bhopal and Dharwad (as cited through KIIs), where alumni are now able to operate their tractors along with different implements. As a result, through the training alumni are able to perform farming activities by themselves without seeking help from third party tractor operators.

8.2.3: Effect of training on increasing alumni's ability to operate and perform basic mechanical repairs on their own tractor

Figure 8.2.3: Operate tractor

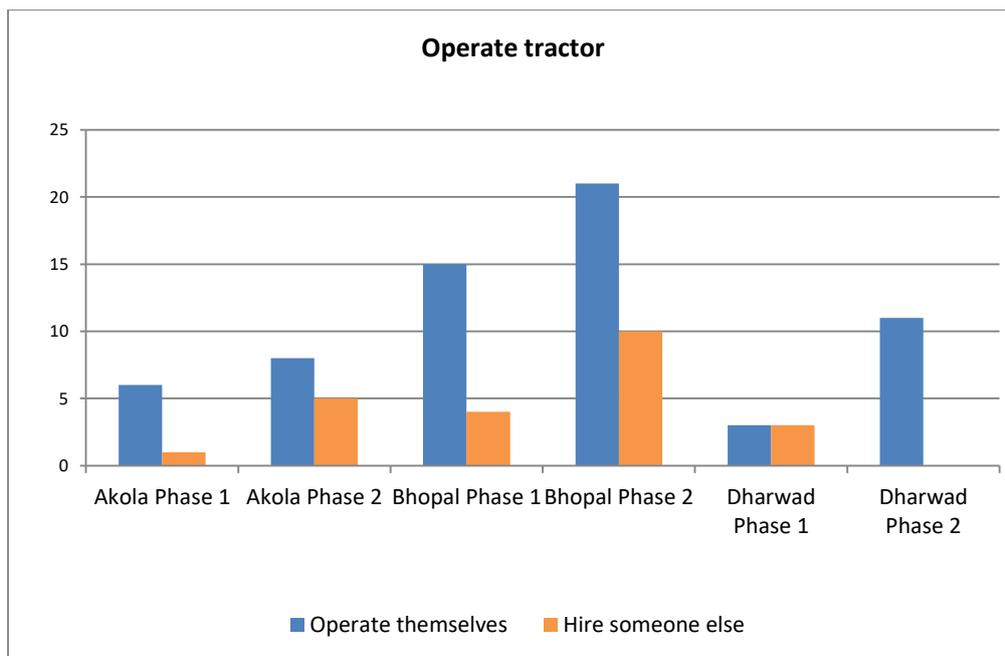
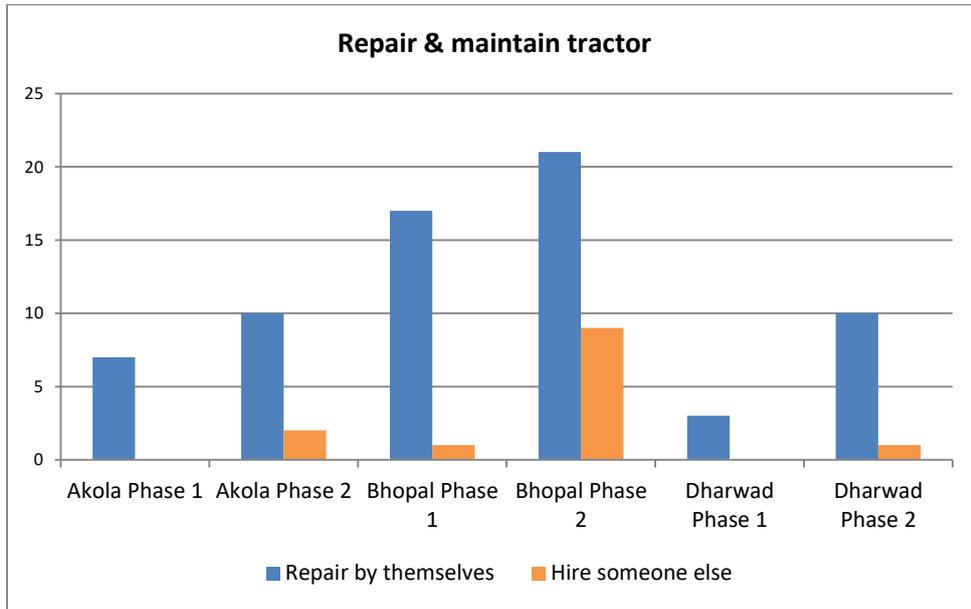


Figure 8.2.4: Perform minor repairs



74% alumni surveyed with family owned tractors, can now operate and perform minor basic repairs and maintenance functions on the tractor, post completing their training at Hunar. Figures 8.2.3 and 8.2.4 displays a location and phase wise split of number of alumni surveyed who operate and perform basic repairs respectively on their family owned tractors.

8.3: Impact on Household Income

Figure 8.3.1: Impact on Household Income

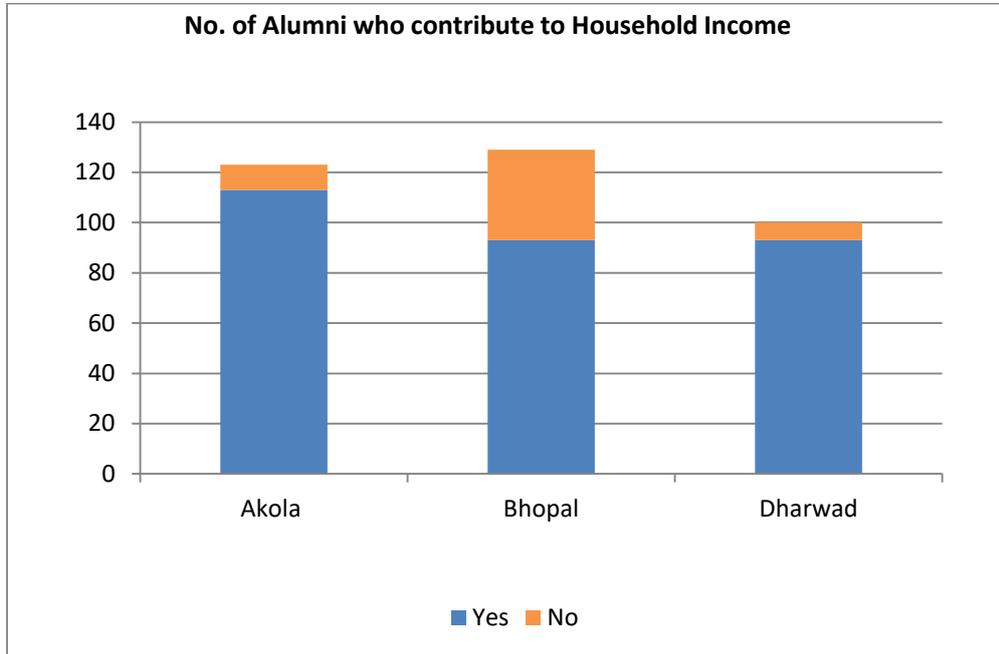
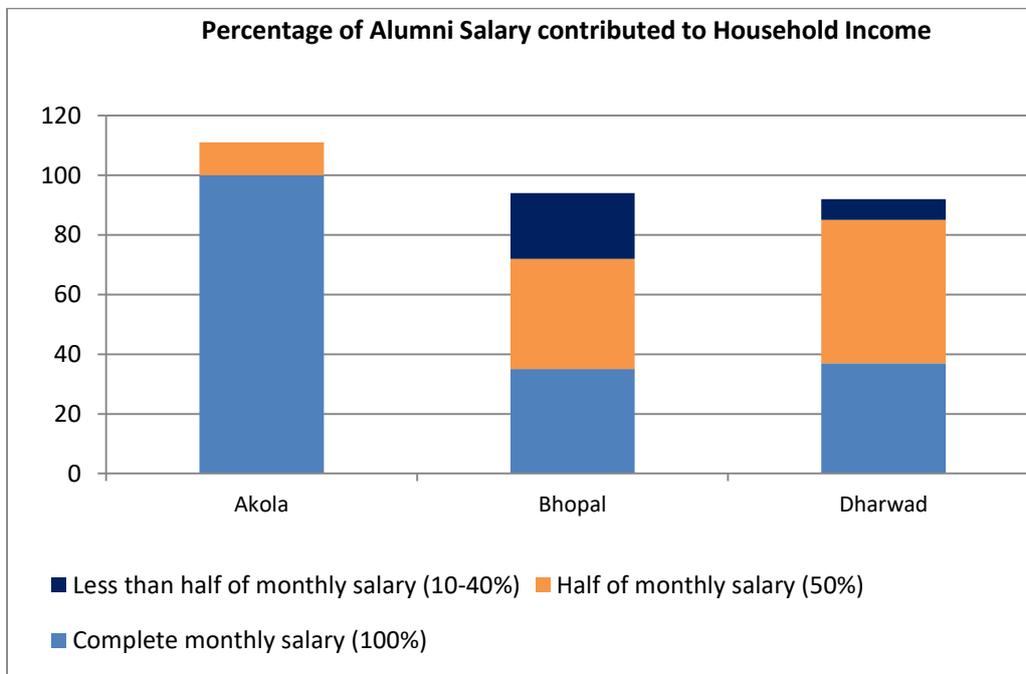


Figure 8.3.2: Alumni's contribution



85% of alumni surveyed and interviewed support their family with their income as shown in figure 8.3.1, where 80% of alumni support their family financially throughout the year. Out of these, 58% alumni contribute their complete monthly salary to support their household while 32% alumni share around 50% - 75% of their monthly salary with their household as shown in figure 8.3.2. Many alumni interviewed during KIIs mentioned that their income takes care of household expenses, such that income from regular farming activities is saved & invested. On an average, households have saved around INR 46,000 and INR 21,000 annually from not hiring a third party tractor operator and mechanic respectively. An alumni interviewed in Bhopal who now drives his tractor along with implements, has saved INR 35,000 – 40,000 annually from not hiring a third party tractor operator.

8.4: Social Outcomes

8.4.1: Alumni’s purchases and personal expenses

Figure 8.4.1: Purchases and expenditures from alumni (graphical view)

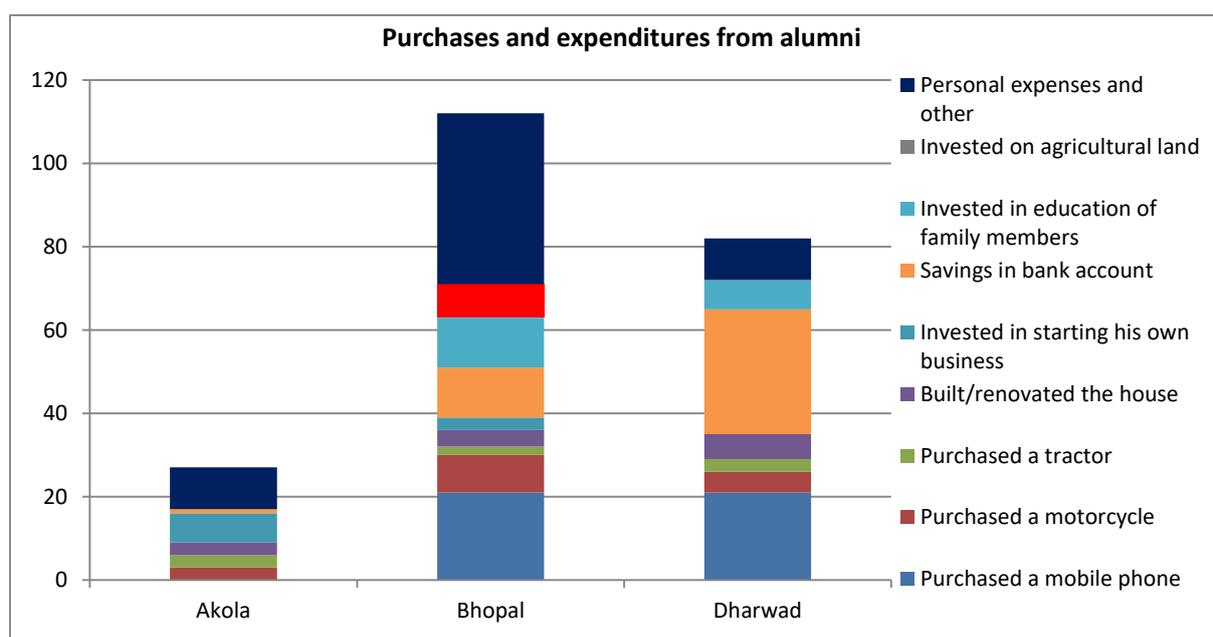


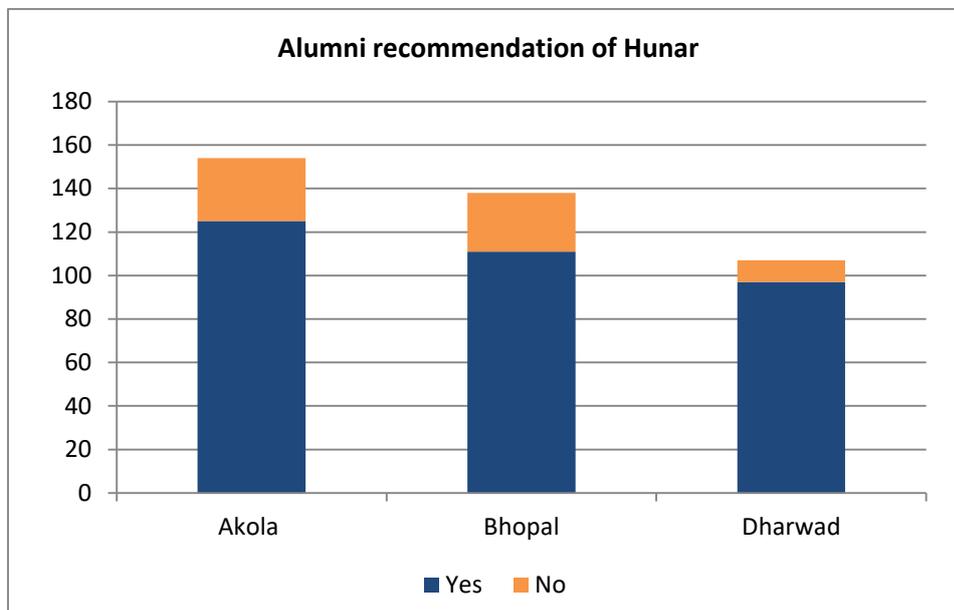
Figure 8.4.2: Purchases and expenditures from alumni (table view)

	Purchased a mobile phone	Purchased a motorcycle	Purchased a tractor	Built/renovated the house	Invested in starting his own business	Savings in bank account	Invested in education of family members	Invested on agricultural land	Personal expenses and other
Akola		3	3	3	7	1			10
Bhopal	21	9	2	4	3	12	12	8	41
Dharwad	21	5	3	6		30	7		10

As shown in figure 8.4.1 and 8.4.2, alumni have largely spent their income on personal expenses such as rent, electricity, purchase of mobile phones, savings, and investment in education of family members. Alumni have also used their income to purchase a motorcycle, and on other expenses including spending on their education, investments and purchasing agricultural supplies and tractor spare parts. Around 44% of the alumni surveyed and interviewed mentioned no additional benefit from their income.

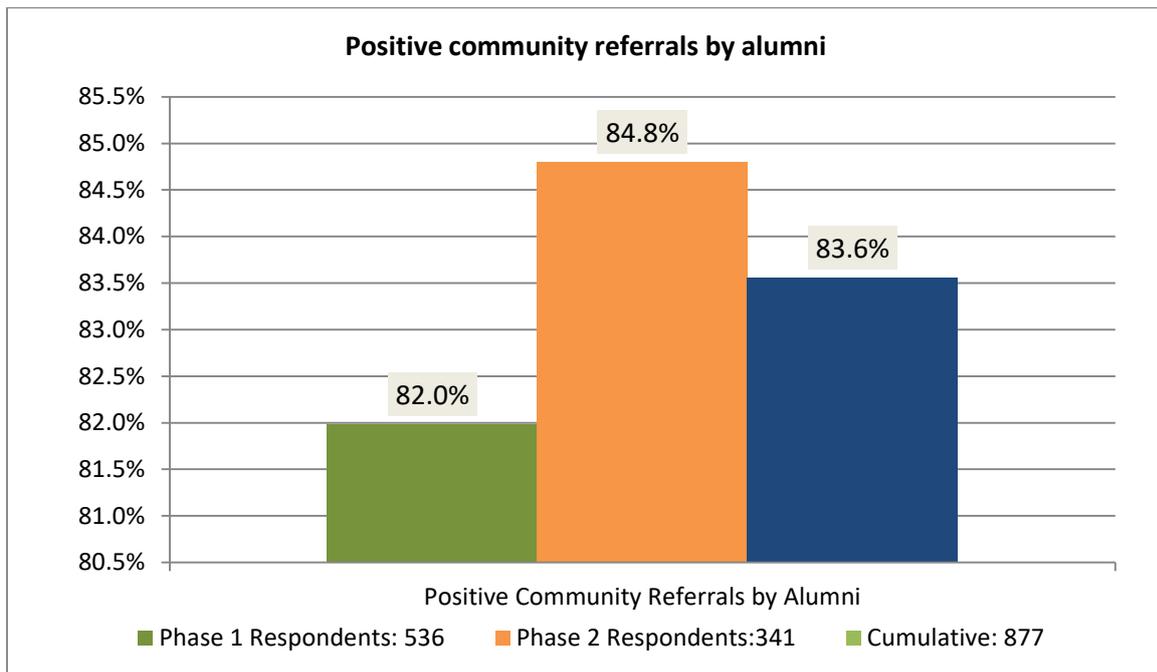
8.4.3: Alumni as community influencers

Figure 8.4.3: Percentage of alumni who have recommended Hunar



83% (333 out of 399) alumni have recommended Hunar to their friends and family from their villages as shown in figure 8.4.3. 64% of the alumni surveyed stated that the tractor mechanic and operator course has over the years become popular in their village. Alumni interviewed through KIIs recommended the course, as in their opinion, the training facilities are well equipped with trainers and equipment to help trainees learn and understand. Alumni who benefitted from the course through a gain in employment and self-employment opportunities after completing the training were more eager to recommend the course to their peers. An alumnus from Akola even tried convincing his friend's father to allow him to attend the course by sharing his experience on how the training has helped him get a job and has changed his life for the better. Four alumni from phase 1 in Bhopal did not recommend the course since the centre has shifted to Bhopal and village youth are not interested in travelling to the centre.

Figure 8.4.4: Positive community referrals by alumni



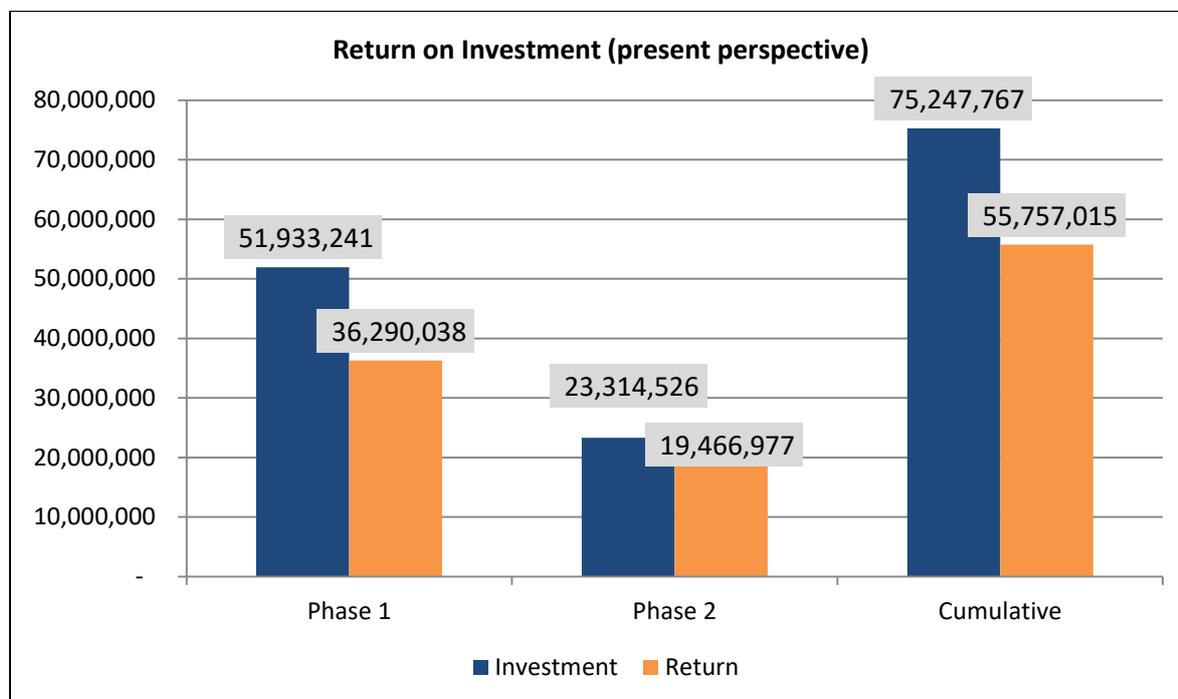
As shown in figure 8.4.4, from a phase wise perspective 83.6% alumni have referred Hunar training centre to their peers to pursue tractor operator and mechanics course.

9. Return on Investment (ROI)

The return on investment for Project Hunar is calculated showcasing a current perspective, and future perspective calculated as a projection of alumni's income till the retirement age of 60 years.

Return on investment – present perspective

Figure 9.1: Return on Investment – Present Perspective



From the present perspective, the graph (figure 9.1) displays the return on investment (ROI) for Phase 1, Phase 2 & cumulatively for the entire programme, with a comparison of investment and return. For phase 1, since the investment was over INR 5 Crores, the return is 68% or ROI is 1:0.68. For phase 2, with a lower investment of over INR 2 Crores, the improved return is 92% or ROI is 1:0.92. Therefore, with a cumulative investment of over INR 7 Crores, the return or ROI is 75% or 1:0.75, compared to the industry standards defined acceptable return of investment at 1: 0.60.

Figure 9.2a: Return on Investment – Present Perspective (Phase I) – location wise

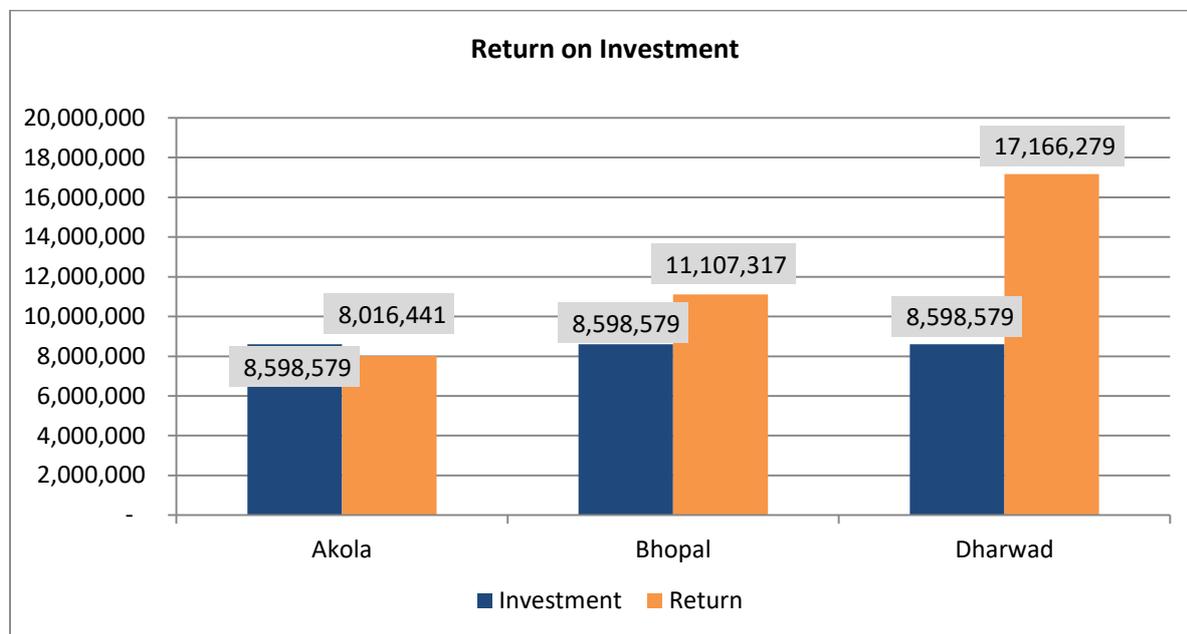


Figure 9.2b: Return on Investment – Present Perspective (Phase II) – location wise

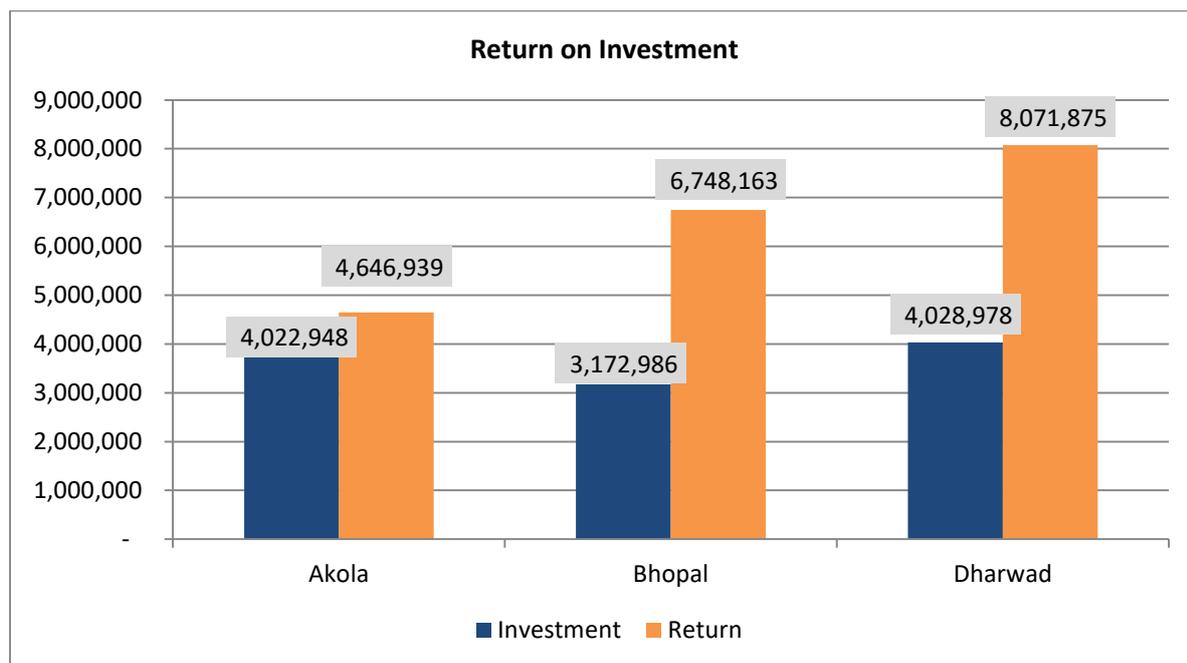
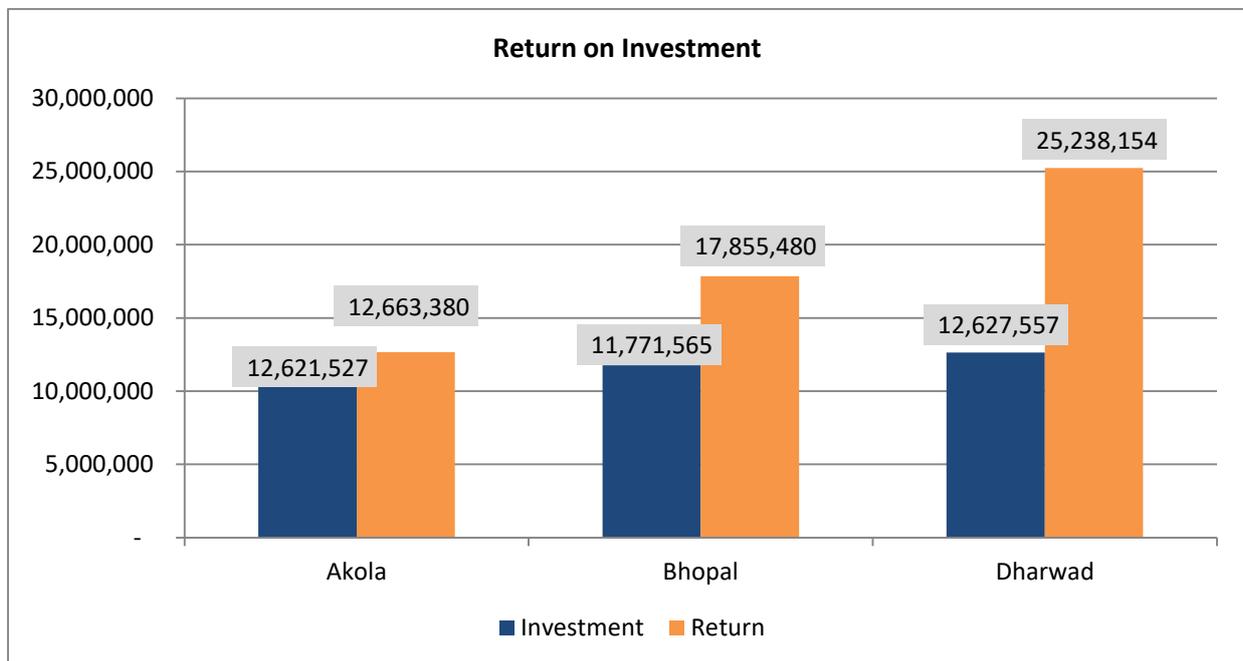


Figure 9.2c: Return on Investment – Present Perspective (Phase I & II combined) – location wise



Figures 9.2a, 9.2b and 9.2c provide a location wise split and phase wise split of ROI from a current perspective.

Figure 9.2 a displays the return on investment (ROI) for phase I, split for each market – Akola, Bhopal and Dharwad. Investment for all 3 locations in phase I was similar. Akola displays a rate of return at 93%, Bhopal displays an improved rate of return at 129%, and Dharwad displayed a maximum rate of return at 200%.

Figure 9.2 b displays the return on investment (ROI) for Phase II, split for each market – Akola, Bhopal and Dharwad. Investment for all 3 locations in phase II was different as shown in the figure. For phase II, Akola, Bhopal and Dharwad displayed a rate of return of 116%, 213% and 200% respectively.

Figure 9.2 c displays a cumulative return on investment for each market – Akola, Bhopal and Dharwad, where the rate of return for Akola, Bhopal and Dharwad is 100%, 152% and 200% respectively.

Return on investment – future perspective

Theoretical perspective

The future perspective is a take on the ROI by calculating it for all the working years of the alumni

The incremental income is calculated:

- Incremental value created by Hunar = Current Income - Income before Hunar
- Avg. Incremental value * 12 months (since we are calculating current ROI, it is assumed that as of 2019 everyone who is employed would have or will at least work for an avg. of 12 months)

Variables:

Variable 1: Productive years of work

Variable 2: Incremental annual income (difference between earnings before Hunar & after Hunar)

Since income has been captured in range, median values have been considered

Variable 3: Inflation of 7-8% has been considered, where it is assumed that considering inflation, alumni's salary will display a 4% increase every year

Calculations for arriving at the ROI (Future perspective)

- Incremental income value is calculated for each alumni
- Basis the age of the alumni, the remaining years of work is calculated considering that he will work until 60 years of age. (E.g. If the alumni are 28 years then the productive years of work is $60-28=32$ years)
- On the current incremental income value, future income is calculated for all the productive years with an increment of 4% per year. (e.g.: if he is earning 100,000 in 2019, the income for 2020 is 104000 ($100000+4\%*100000$), the income for 2021 is 108160 ($104000+4\%*104000$), similarly it is compounded for the remaining work years at 4% year on year.

Figure 9.3a: Return on Investment – Future Perspective

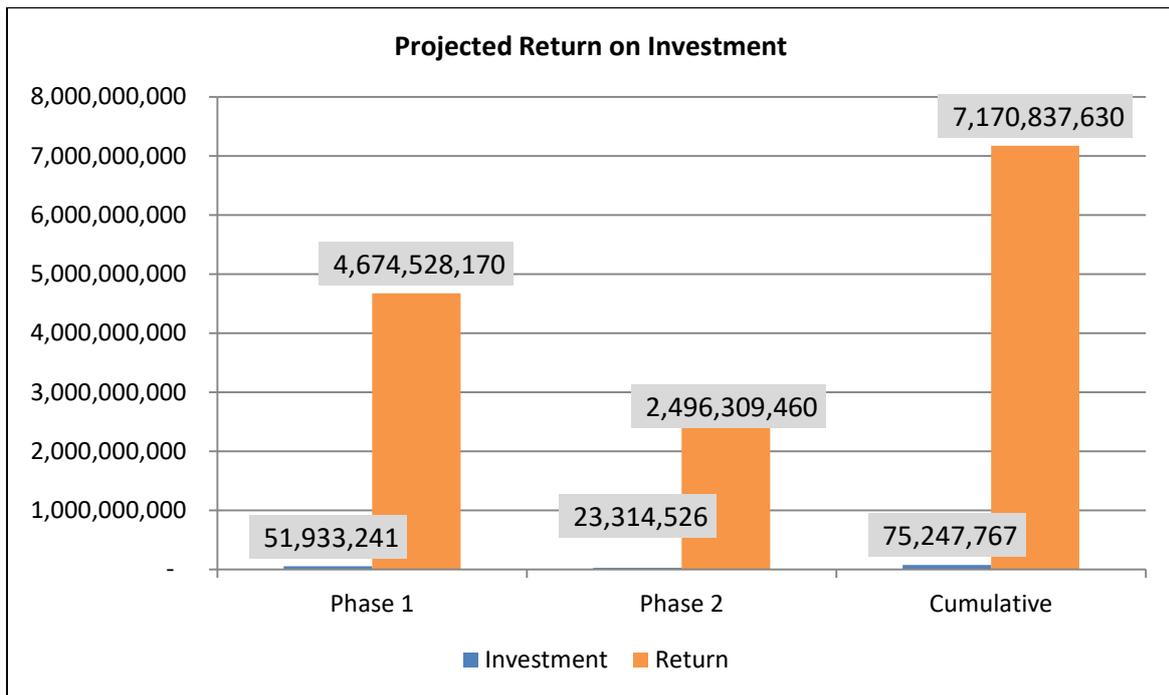


Figure 9.3b: Return on Investment – Future Perspective (overview)

	ROI (Future Perspective)	ROI (Future Perspective) with 4% YoY salary increase basis inflation
Phase 1 Alumni	1,281,260,934	4,674,528,170
Phase 2 Alumni	684,223,877	2,496,309,460
Cumulative	1,965,484,811	7,170,837,630

Fig 9.3 a displays the projected return on investment (ROI) with projections of income for productive earning years of the alumni, that gives us the ROI in the future perspective.

It also displays a comparison of investment and return

Inference:

If alumni who are earning after completion of their training continue to work for their productive earning years, then they will end up creating a total return value of 717

crores. Phase II showcases a return of 249 crores (with a total of 341 alumni) and Phase II showcases a return of value of 467 crores (with a total of 536 alumni)
ROI Future perspective (with and without inflation)

The grid showcases: 717 crores as return if a 4% increment is considered year on year. Without the increment, the return is 196 crores.

Figure 9.4: Future Earning Potential of Alumni across Markets

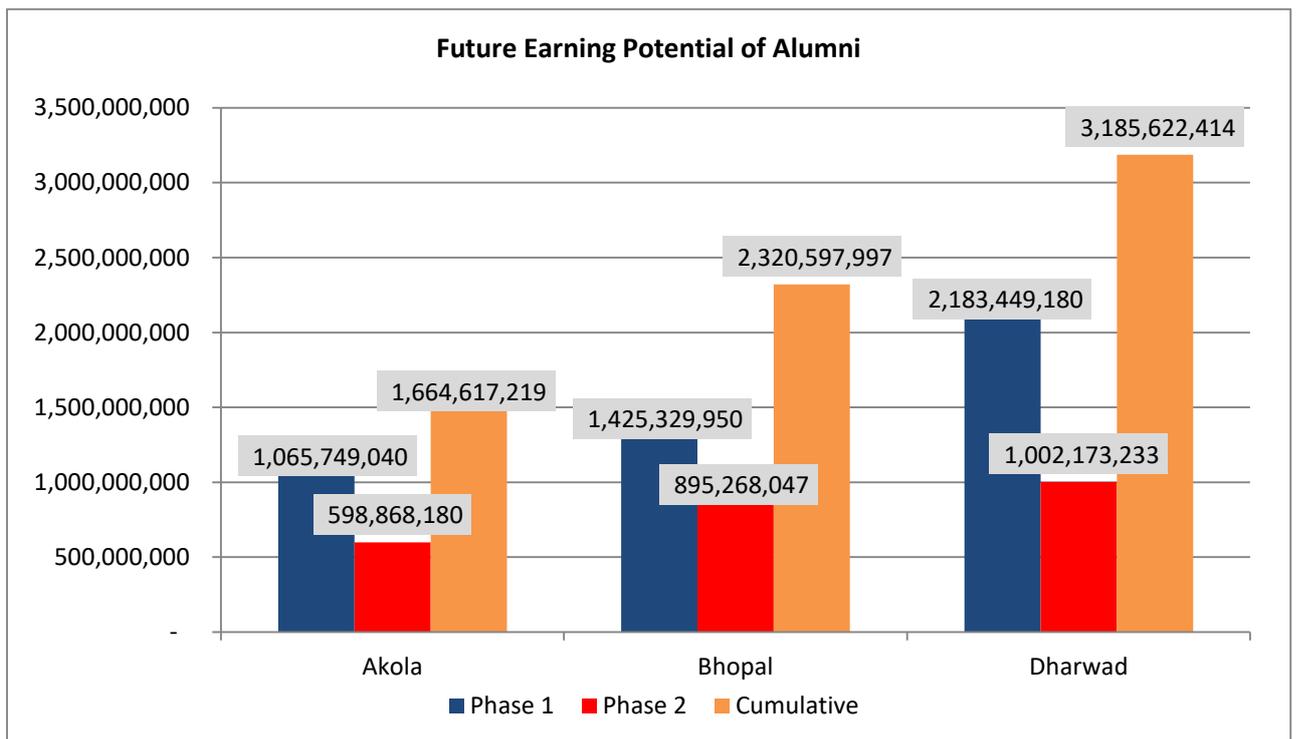


Figure 9.4 above provides information on future earning potential of alumni across markets, where the projected income is calculated keeping in mind the productive earning years of the beneficiary till the retirement age of 60 years. While calculating their future earning potential, an inflation of 7-8% is also considered.

10. Social Returns on Investment

10.1 Social Returns on Investment - Impact Framework (S-ROI)

The process of calculating SROI is an extensive exercise that includes in depth research to identify quantitative economic outcomes as well as financial proxy values for the social qualitative outcomes that are equally relevant for any social development project. The process followed largely depends on the research objective and expected outcomes, sample size and target population, and research data and findings obtained through evaluation and impact assessment.

To further assess the extent to which program outcomes observed are as a result of Project Hunar, and to identify the benefits and unintended consequences resulting from the project interventions over a period of time, SROI studies typically require a longer time frame and a large descriptive and evaluation study design to collect the required data for calculating the above parameters.

The impact assessment study conducted involved a quick telephonic survey with essential questions to calculate the return on investment and social impact return. Furthermore, the research study was carried out over a span of approximately 15 days. Due to the above limitations, a complete SROI analysis cannot be performed on the data obtained, as data analysis on limited research findings will not provide significant information about deadweight, attribution, displacement and drop off rate - 4 essential parameters that largely influence impact. Also, to accurately assign financial proxy values to qualitative social outcomes, a more comprehensive data analysis is required for which extensive research data is essential.

Hence, for the purpose of this study, a social impact return instead of a SROI has been calculated using the theory of change model as the basic foundational framework for analysis and interpretation. This social impact return provides an analysis of return on social parameters calculated in financial terms to arrive at a financial value return in most cases and also represented in percentage terms for a few parameters.

The theory of change grid below clearly emphasises on the inputs, outputs, outcomes and impact of Project Hunar, along with the indicators considered to measure each of these elements of the theory of change. It also describes the relevance of the theory of change to the impact assessment conducted.

Theory of Change Components		Indicators	Relevance to the impact assessment
Inputs	<p>Training in tractor mechanics and operations</p> <p>Time invested by trainees</p> <p>Money invested in program management and building capacities of trainers</p>	<p>Financial investment including all program related and management costs</p>	<p>Project investment (overall, phase-wise investment and location-wise investment) was considered while calculating the social impact return</p>
Outputs	<p>Skills & competencies gained by the alumni that have contributed to their employment</p> <p>Project attributes (such as skilling, OJT, certificate) that influenced employability of alumni after completion of training</p>	<p>Number of alumni trained in theoretical & practical skills</p> <p>Number of trainees completed On-the- Job Training (OJT)</p> <p>Number of alumni who are employed & self-employed after completion of training</p>	<p>42% of alumni (150 out of 345 responses) attribute their employment/self-employment status to the skills acquired at the training program, while 15% (46 out of 345 responses) chose on-the-job training (OJT) as the reason.</p>

<p>Outcome</p>	<p>Alumni contribute to their household expenses and reduce domestic/family financial burden</p> <p>Relief from economic uncertainty due to seasonality of agriculture, through a steady source of year round income</p> <p>Reduction in household expenses due to savings arising out of skills learned</p> <p>Alumni become community influencers for seeking admission at Hunar</p>	<p>Average monthly income of alumni</p> <p>Number of alumni who contribute their income for household expenses</p> <p>Number of alumni who contribute to their household income on a monthly/regular basis</p> <p>Number of alumni who can operate their family owned tractors by themselves</p> <p>Number of alumni who can repair and maintain their family owned tractors by themselves</p> <p>Average amount spent on hiring a third party tractor mechanic and operator</p> <p>Number of alumni who have referred Hunar to their peers</p>	<p>Alumni's contribution to household income while employed/self-employed has been around INR 49,348,972.</p> <p>Around 68% of alumni's households have been alleviated from seasonal economic uncertainty through alumni's monthly contribution to their household income.</p> <p>Due to the training at Hunar, alumni have annually saved INR 4,164,149 and INR 2,238,456 from not hiring a tractor operator and mechanic respectively; thus, totalling the annual savings to INR 6,402,605.</p>
<p>Impact</p>	<p>Upliftment from unemployment</p> <p>Growth in employability</p> <p>Gain in employment and self-employment</p>	<p>Increase in number of alumni employed/self-employed after Hunar</p> <p>Increase in alumni's monthly income after Hunar</p>	<p>Financial gain of INR 44,610,096 due to alumni employed/self-employed after training</p> <p>After completion of training at Hunar, there has been a 72.8% growth in alumni employability basis income</p>

10.2 Findings

10.2.1 Output: Project Hunar attributes influencing employability

Figure 10.1: Perceived importance of Project Hunar attributes influencing employability

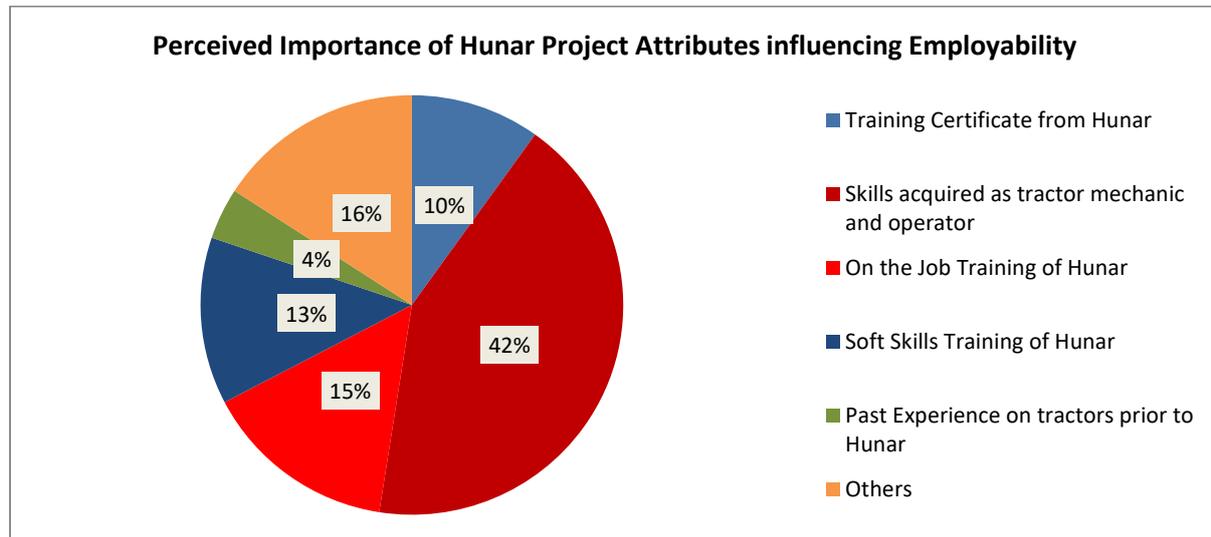


Figure 10.1 displays the indicators that enabled Alumni to be employed / self-employed: Skills training, On-the-job training, Certificate, Soft Skills, etc. The chart clearly showcases the importance of Project Hunar's role in the alumni's employment / self-employment. 42% of alumni (150 out of 345 responses) attribute their employment/self-employment status to the skills acquired at the training program, while 15% (46 out of 345 responses) chose on-the-job training (OJT) as the reason. 80% (276 out of 345 responses) attribute hard and soft skills, OJT and certificate to being employed/self-employed, thereby assigning a high importance to the training program.

10.2.2 Social Outcome: Increase in house-hold income and reduction in house-hold expenses

Outcome Category 1

“Alumni’s Contribution to Household Income”

It is considered a social return when the alumni can contribute to the HH income, due to their employed / self-employed status.

Calculation:

- **Qualifier 1: Those who are either employed / self employed**
- **Qualifier 2: Those who have contributed to HH income**
- **The median values are calculated for the annual income**
- **Contribution values are calculated basis the % of contribution as specified by the respondent. Respondents contribute 100%, 50% or less than 50% of their income.**

The calculations were as follows:

- **If respondent contributes 100% then: total income was considered**
- **If respondent contributes 50% then: half the income was considered**
- **If respondent contributes less than 50% then: half of the range which is 25% was considered**
- **The contribution to HH income are totalled for all respondents, and then extrapolated to reflect the total universe of alumni, to arrive at Alumni’s contribution to HH income**

Representation:

The value is expressed as the resultant total annual value of domestic contributions segregated by Market and Project Phase.

Figure 10.2a: Annual domestic contribution by alumni

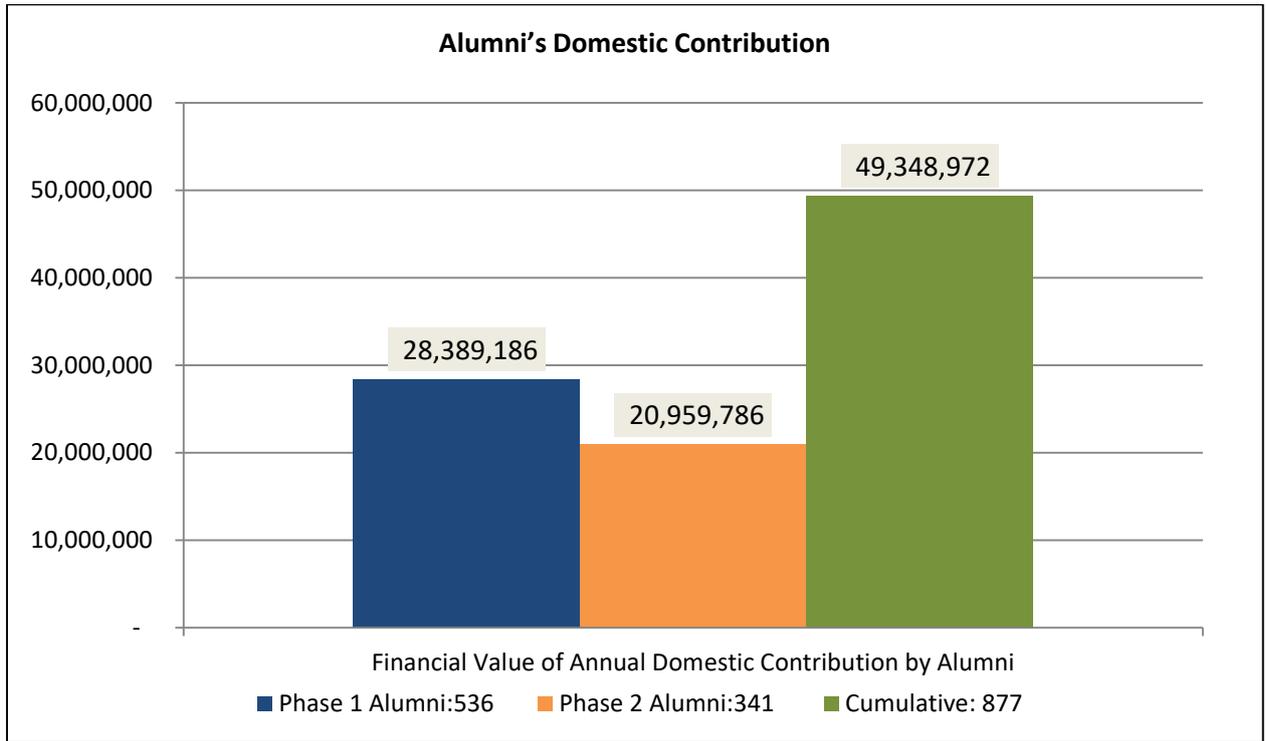


Figure 10.2b: Annual domestic contribution by alumni (location wise analysis)

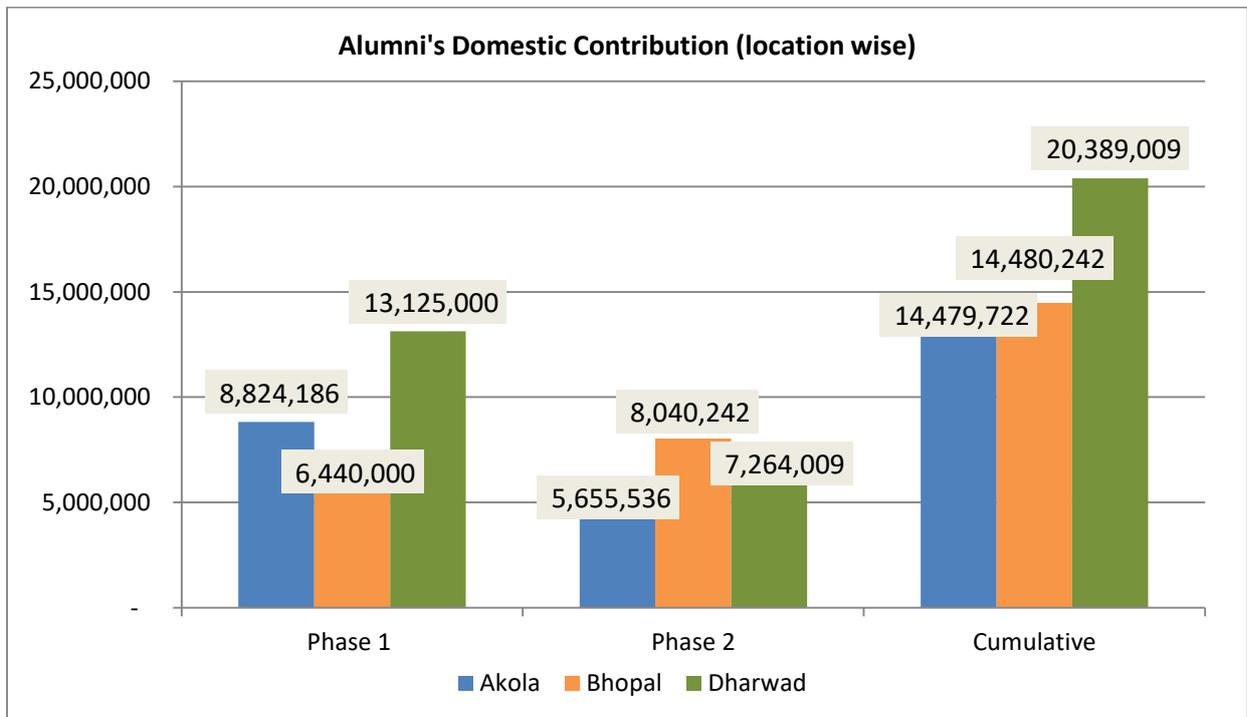


Figure 10.2a and 10.2b above displays the “Financial Value of Annual Domestic Contribution by Alumni” i.e. Rise in Domestic Responsibility as a function of the ability to contribute to HH expenses and reduce domestic/family financial burden - split market and phase wise.

Total alumni’s contribution to household income while employed/self-employed is INR 49,348,972.

Phase wise insights

While only 39% of alumni are from phase 2 (341 from phase II out of a total of 877), 42% of the contribution (2.09 Cr out of a total of 4.93 Cr) is from phase II alumni, clearly showcasing that phase II alumni have a high contribution in spite of a less than 40% representation of the total universe

Location wise insights

Overall, the alumni from Dharwad showcase maximum contribution of their annual income to household/domestic expenses, this can be attributed to the higher amount and regularity of income of alumni in Dharwad, owing to the presence of automobile manufacturing facilities in the vicinity.

Outcome Category 2

“Alumni HHs Alleviated from Seasonal Economic Uncertainty”:

Generally, seasonal income affects regular contribution to households. If the alumni’s employment / self-employment results in regular income, due to which he is able to contribute to the household regularly / as and when needed, it clearly showcases that the alumni house-hold are not vulnerable to seasonal uncertainty.

Calculation:

- **Qualifier 1: Those who are either employed / self employed**
- **Qualifier 2: Those who contribute every month to HH income (regular contribution) or as and when needed (whenever the house-hold needs it); those who dependent on seasonal income are not considered**
- **Total number of respondents are considered basis the above two qualifiers**
- **This number is divided by total universe of respondents and multiplied by 100 to arrive at the % of alumni who are not vulnerable to season income and therefore alleviated from seasonal economic uncertainty.**

Representation:

This is expressed in percentage terms: of the number of people able to provide monthly support and support as needed, vis-à-vis the total number of beneficiaries. This parameter is also expressed by Market and by Project Phase.

Figure 10.3a: Households alleviated from seasonal economic uncertainty

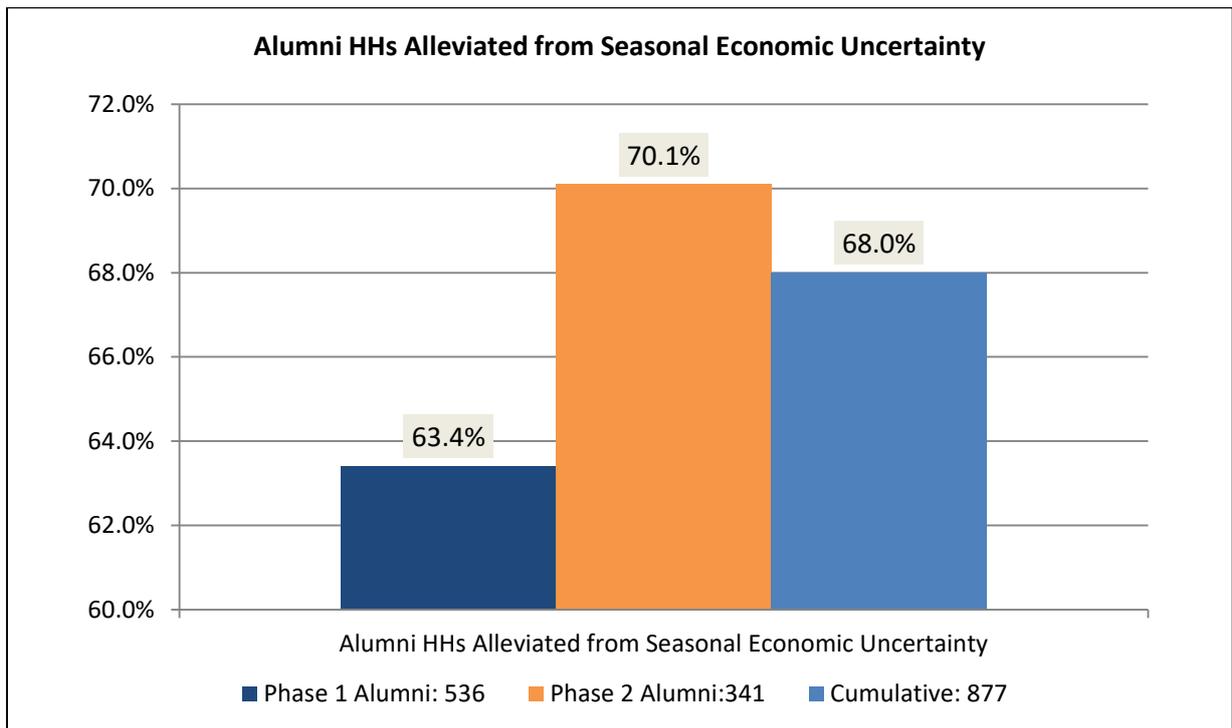


Figure 10.3b: Households alleviated from seasonal economic uncertainty (location wise analysis)

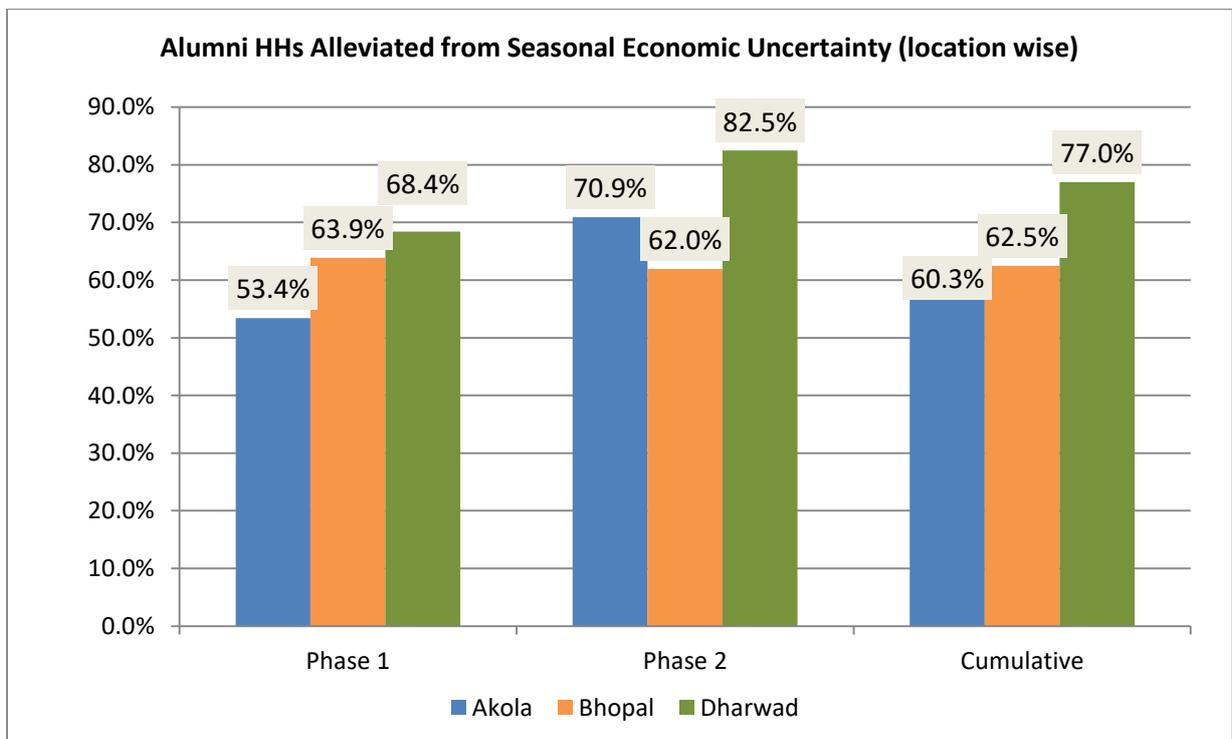


Figure 10.3a and 10.3b displays the relief from economic uncertainty due to seasonality of agriculture, through a steady source of year round income. Expressed in percentage terms across markets, the graph showcases alumni HHs that have been alleviated from seasonal economic uncertainty due to alumni's contribution to household expenses.

Location wise insight

60.3%, 62.5% and 77% alumni HHs from Akola, Bhopal and Dharwad respectively have been alleviated from seasonal economic uncertainty.

Phase wise insight

Over 70% of respondents in Phase II contribute to their HH on a monthly basis or as and when needed thereby alleviating HH from seasonal economic uncertainty, as opposed to 63% respondents doing the same in Phase I.

It is important to note: Overall 68% of alumni's households have been alleviated from seasonal economic uncertainty through alumni's monthly contribution to their household income.

Outcome Category 3

"Annual savings of alumni owning & operating their tractor" and "Annual savings of alumni who own and repair their own tractor"

Owing to the training provided by Project Hunar, if the alumni are able to operate and / or perform basic repairs on his tractor, which results in savings that would have otherwise been paid to an operator or mechanic, then this is considered a social impact return.

Calculation:

- **Qualifier 1: Those who own a tractor**
- **Qualifier 2: Those who operate / do the mechanic work on their own tractor**
- **Qualifier 3: Respondents who could estimate the annual expense they used to incur on a tractor operator / mechanic before they learnt to operate /perform repairs by themselves**

- The annual expense that would have been incurred if a tractor operator was hired and the annual expense that would have been incurred if a tractor mechanic was hired are considered for every respondent
- The expense that is not incurred is now considered a saving
- The savings for all respondents are totalled, and then extrapolated to the universe of alumni to arrive at total annual savings from not hiring a tractor / mechanic.

Representation:

This is expressed as a total annual savings on Tractor Operator Hire and Tractor Mechanic Hire; represented by Market and by Project Phase.

Figure 10.4a: Annual savings from not hiring a third party tractor mechanic and operator

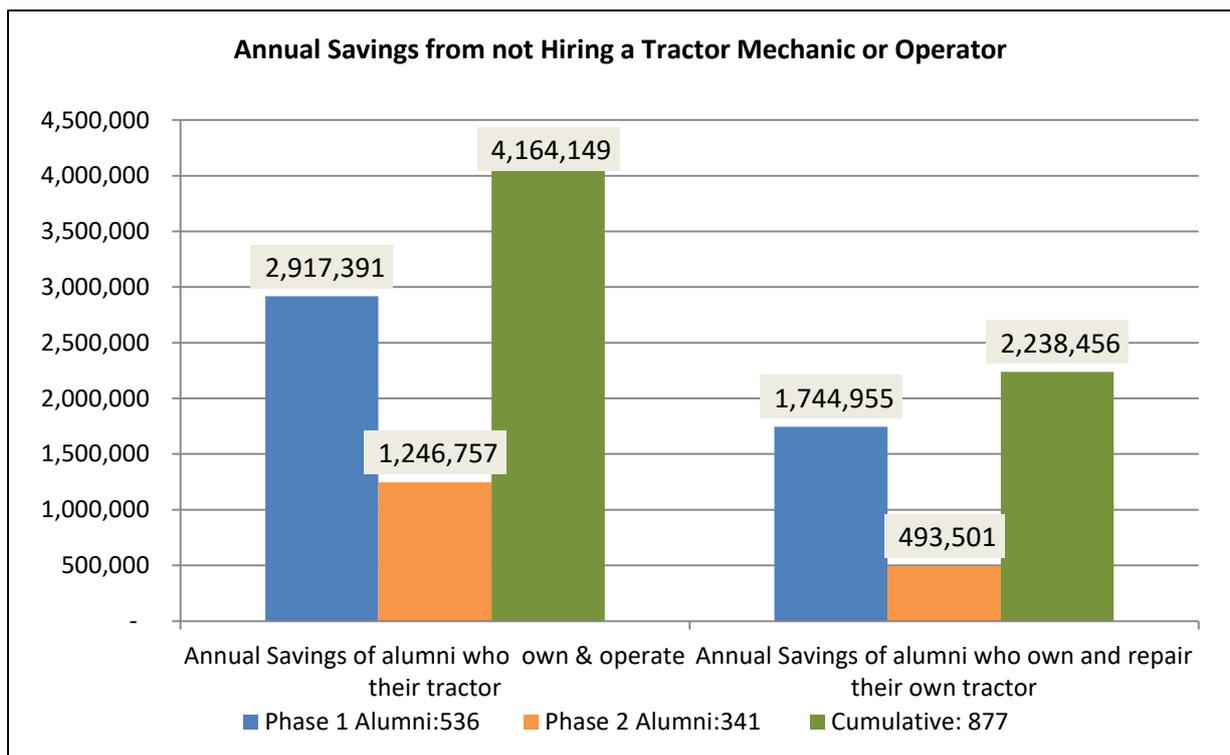


Figure 10.4b: Annual savings from not hiring a third party tractor operator (location wise data analysis)

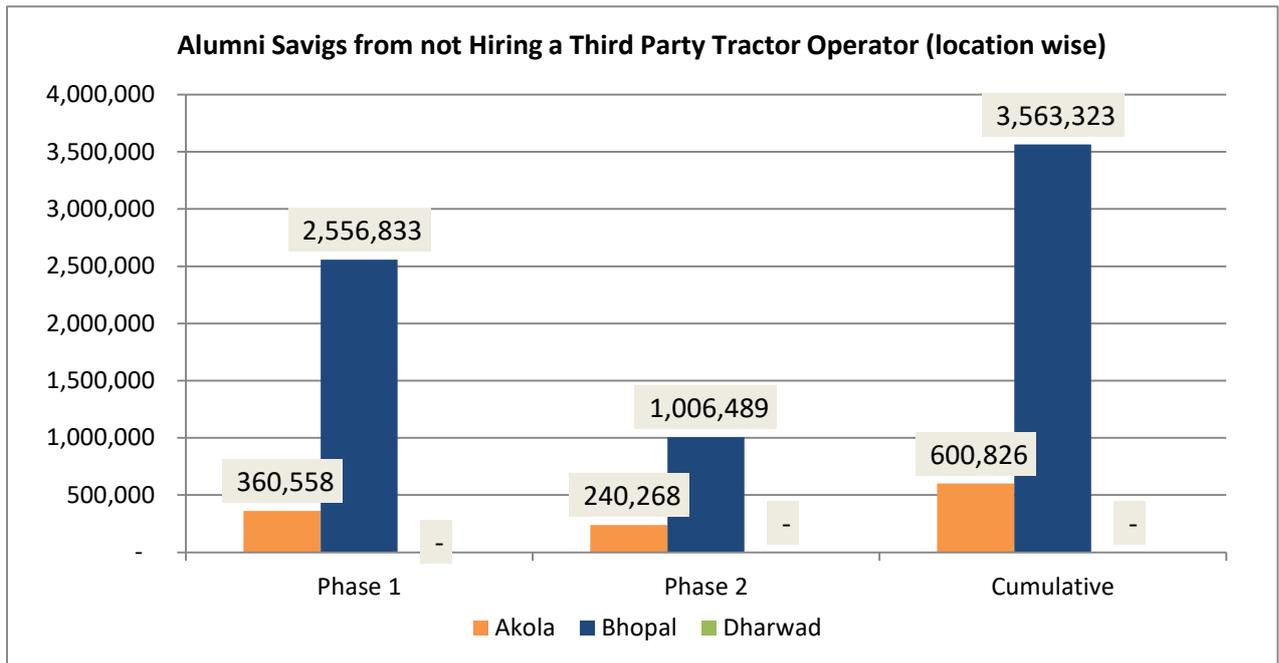


Figure 10.4c: Annual savings from not hiring a third party tractor mechanic (location wise data analysis)

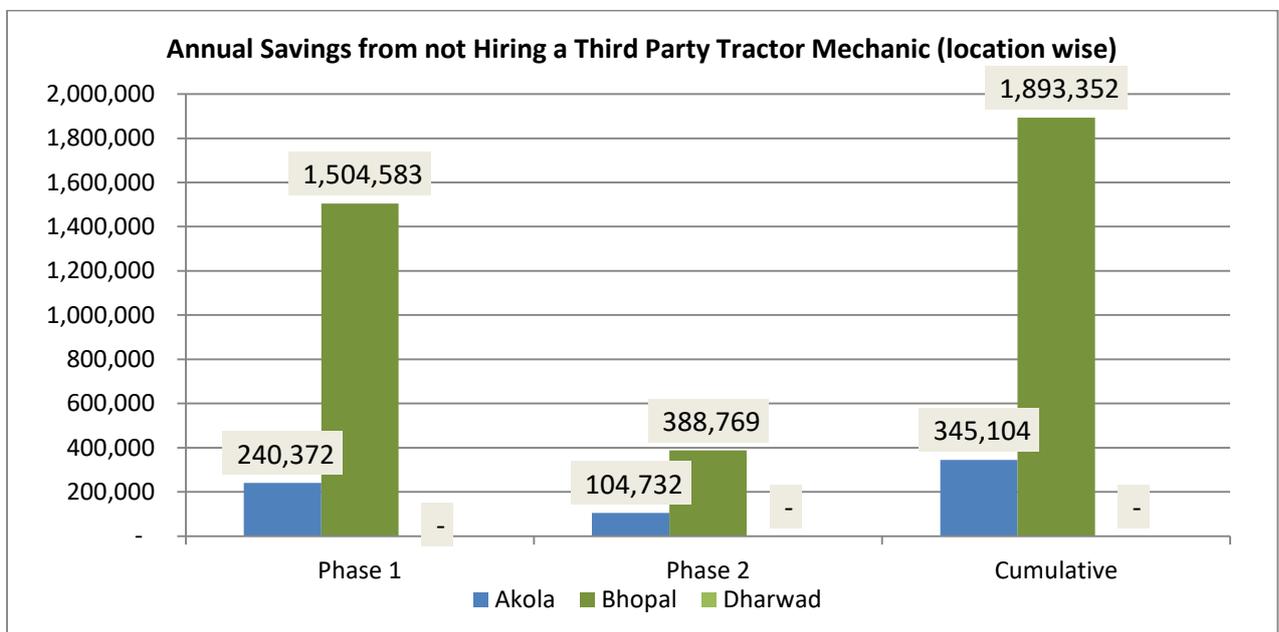


Figure 10.4a displays the reduction in house-hold expenses from not hiring a third party tractor operator and mechanic. Figures 10.4b and 10.4c represent the findings location and phase wise for this indicator

Macro perspective

After completing their training at Hunar, alumni who are able to operate and perform basic mechanical repairs on their family owned tractors by themselves, have annually saved INR 4,164,149 and INR 2,238,456 from not hiring a tractor operator and mechanic respectively; thus, totalling the annual savings to INR 6,402,605.

Location wise insights

The savings of Bhopal are the highest. This can be attributed to many alumni returning to their village to work on their own land. In case of Dharwad, only 14 people own & operate a tractor across Phase 1 & Phase 2, and were not able to estimate what their annual saving might be from not hiring a third party tractor mechanic/operator.

The savings are more in phase I with over 60% of the total alumni from Phase I

10.2.3 Social Impact: Upliftment from Unemployment and Growth in Employability Impact Category 1

“Annual financial value of alumni lifted out of Unemployment”

It is considered a Social Impact Return when people are uplifted out of unemployment owing to the training program. This essentially means that the program has had a social impact if those that were unemployed earlier are now employed / self-employed owing to the training.

Calculation:

- **Qualifier: Respondents who had no income prior to joining Project Hunar**
- **The median monthly income is considered and multiplied by 12 to arrive at median annual income for each respondent**
- **This figure is totalled for all respondents, and then extrapolated to the entire universe of alumni, to arrive at the social impact return figure of upliftment from unemployment.**

Representation:

This is expressed as a numerical value that is a summation of incomes of the beneficiaries who satisfy the relevant criteria. It is also expressed by Market and by Project Phase.

Figure 10.5a: Alumni lifted out of unemployment

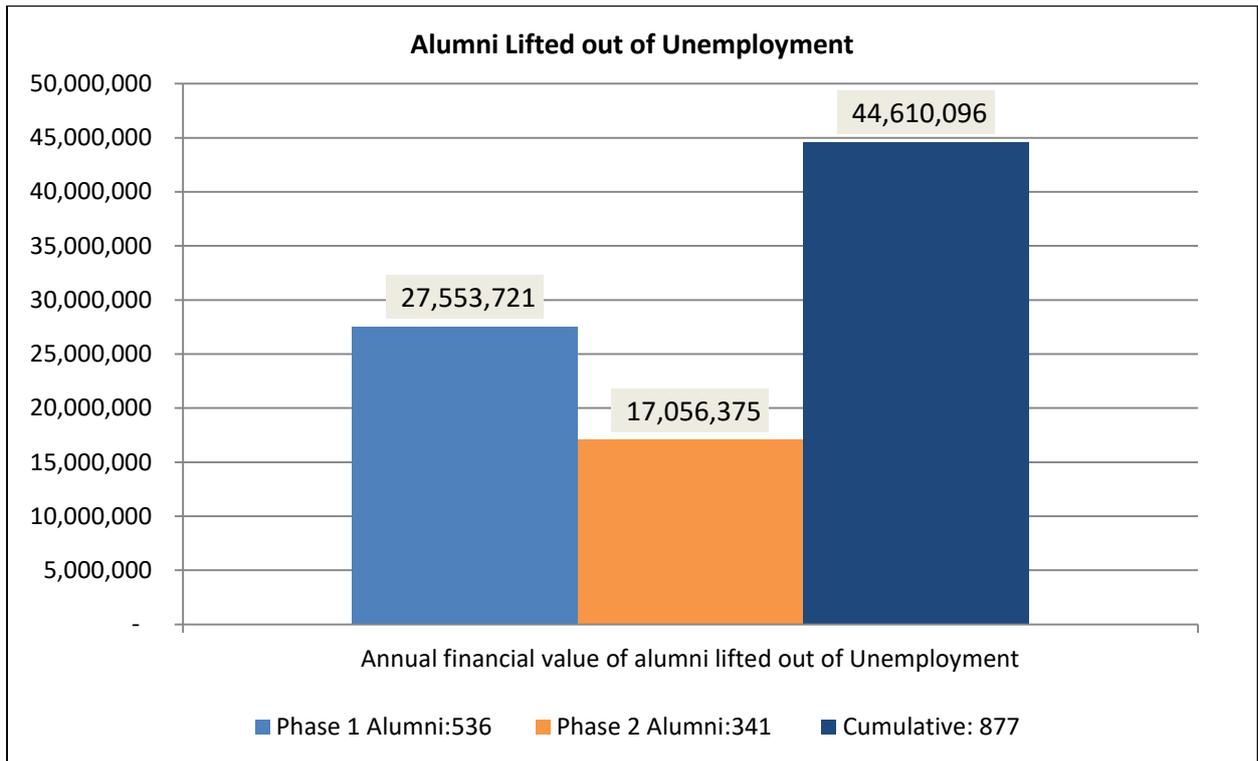


Figure 10.5 b: Alumni lifted out of unemployment

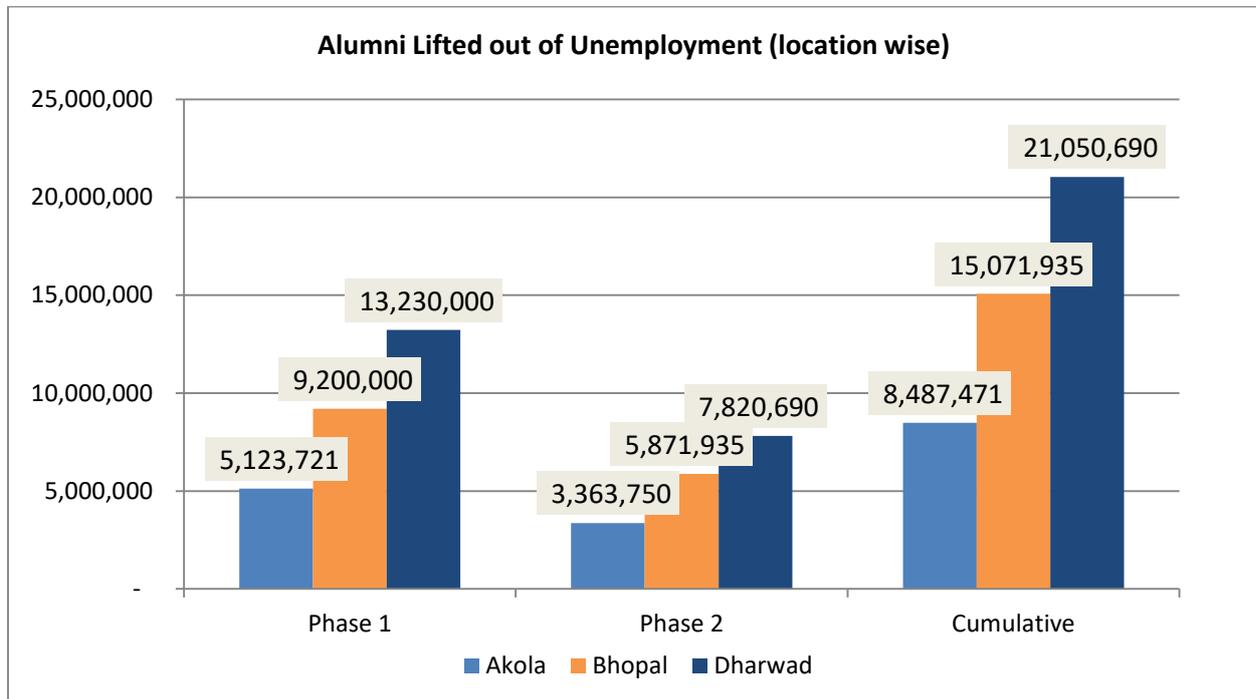


Figure 10.5 a displays the upliftment from unemployment that has resulted for alumni, after completing their training at Hunar - across markets. Figure 10.5 b provides a location and phase wise split for this indicator.

Macro perspective

Gain in employment and self-employment for alumni after completing the training at Hunar has resulted in a financial gain of INR 44,610,096.

Phase wise insight

Value of upliftment of unemployment is higher in phase I with 2.75 Cr and phase II at only 1.70 Cr. This can be attributed to higher number of alumni in Phase I (536) as opposed to Phase II (341).

Location wise insight

Overall, Dharwad displays the highest gain in employment for alumni across phases and cumulatively.

Impact Category 2

“Percentage Growth in Alumni Employability basis income commanded”

Growth in employability is a social impact return that is depicted by the income growth of alumni from before joining Project Hunar to after passing out of Project Hunar. If there is a growth in income owing to project Hunar, it is represented as ‘Growth in Alumni Employability’.

Calculation:

- **Qualifier 1: Those who have earnings before Hunar**
- **Qualifier 2: Employed / self-employed after Hunar**
- **Pre-Hunar income figures of all employed/self-employed alumni were studied, and compared with their current post-Hunar income levels. The increase in income from before Hunar to after Hunar was arrived upon for each respondent**
- **The difference was divided by the respondent’s previous income (before Hunar) and multiplied by 100 to arrive % of growth in their income and thus their growth in employability.**

Representation:

This is expressed in percentage growth terms. The calculation is also segregated to give Market wise and Project Phase wise clarity.

Figure 10.6 a: Growth in alumni employability basis income

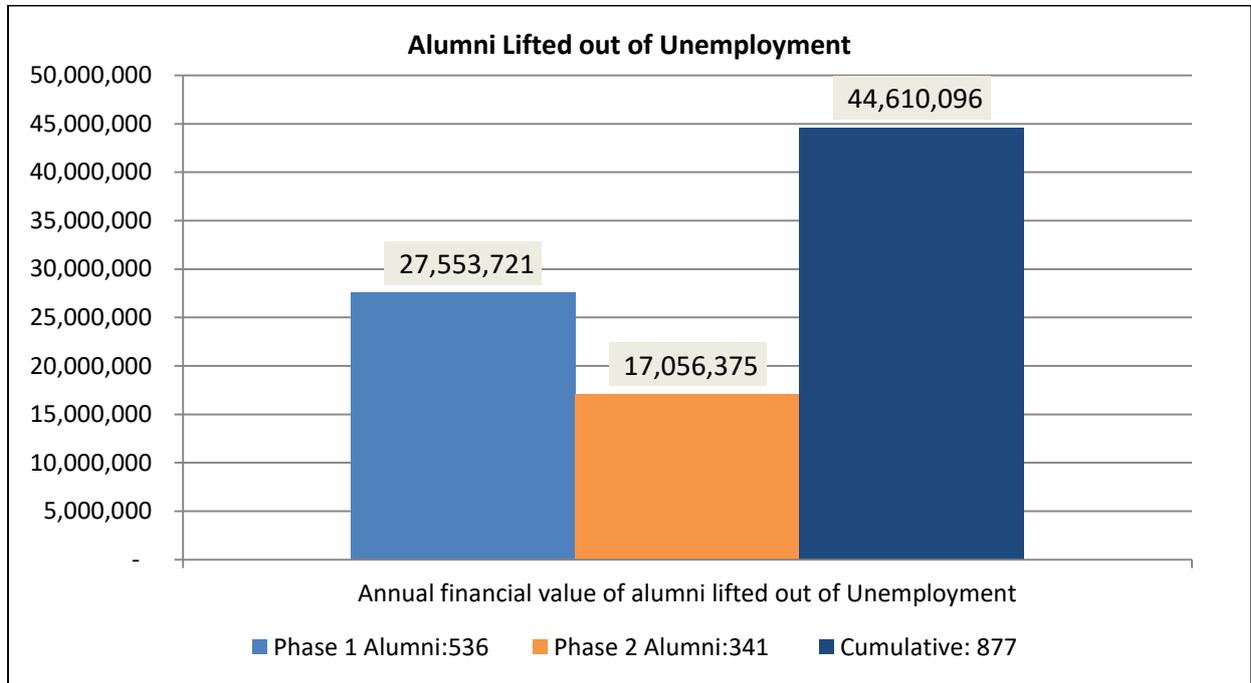


Figure 10.6 b: Growth in alumni employability basis income (location wise data analysis)

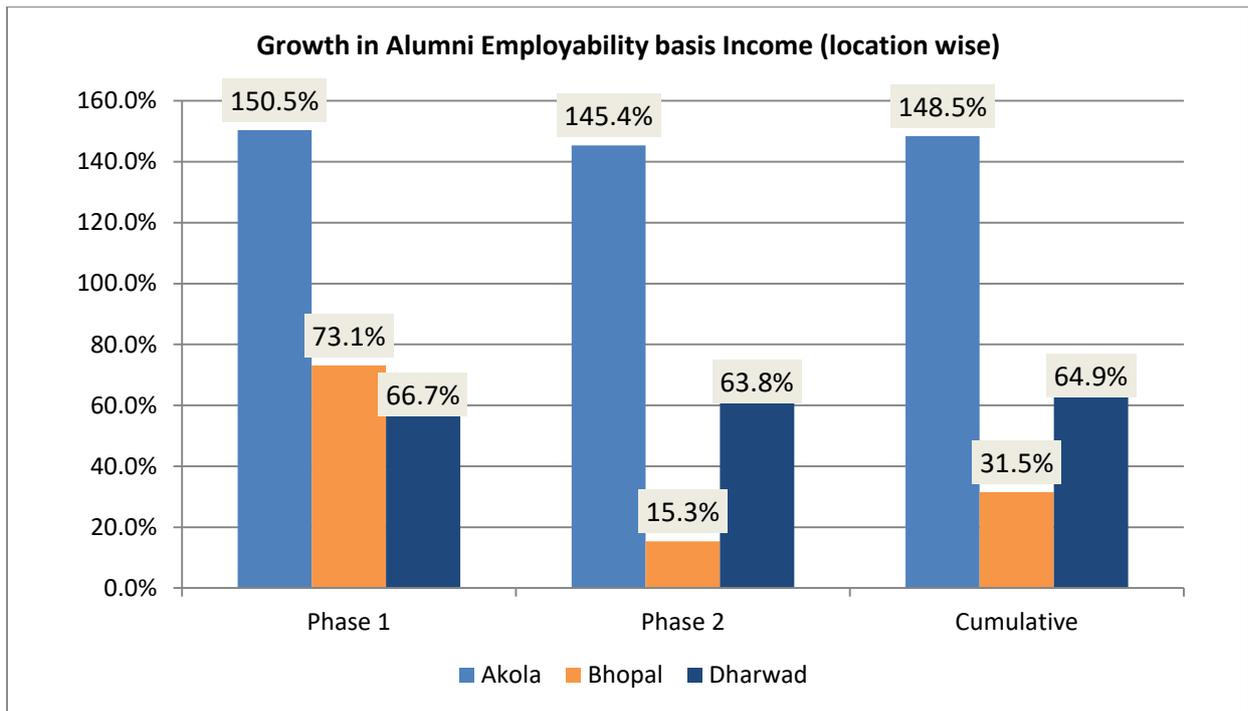


Figure 10.6a and 10.6b displays the growth in income for alumni (that has resulted due to the training at Hunar) who were employed/self-employed - phase wise and market wise. After completion of training at Hunar, there has been a 72.8% growth in alumni employability basis income.

Phase wise insight

While phase I shows a healthy growth of close to 89%, phase II shows above 56%. The dip in figures in Phase II can be attributed to low employment and income trends in Bhopal (73% in Phase I to 15% in Phase II)

Location wise

Akola reflects the highest growth in income for alumni across phases and cumulatively, this can be attributed to the entrepreneurial nature of the alumni in Akola and hence their will and skill to make more income, enhanced further by the instructors in Akola at Project Hunar.

11. Conclusion

The study was carried out to evaluate the growth in employment and income after completing training at Hunar. Highlights from the study indicate an upward growth in alumni's employment status where 74.5% alumni are currently employed/self-employed. Hence Project Hunar has lifted youth out of unemployment and has helped over 40% of the beneficiaries earn a higher income.

The study was also intended to assess if the project witnessed a positive return on investment, thereby analysing whether it was recommended to expand / scale the project. The project has shown a strong positive return on investment at 1:0.68 for phase 1, 1:0.92 for phase 2, and a cumulative return on investment at 1:0.75 which weighs positively towards scale and expansion, given that the project continues to function with a similar employment rate and income levels.

The secondary focus was to assess the social impact return in order to evaluate return for the project from output outcome and impact perspectives. The social impact return highlights are presented below:

- **Output:** Alumni clearly report skills gained in Hunar as a strong reason for landing a job, along with sharing positive referrals among the community.
- **Strong outcomes**
 - The social impact return clearly showcases a high annual domestic contribution of INR 49,348,972 with an assurance of alleviating families from seasonal economic uncertainty.
 - In addition to domestic contribution, the return reveals a reduction in expenses of INR 6,402,605 due to the skills acquired by the alumni at the Project Hunar centres for operating and conducting basic repairs on the tractor.
- **Social impact:** Project Hunar has resulted in 72.8% growth in alumni employability basis income and a financial gain of INR 44,610,096 for alumni who became employed/self-employed after completing the training.

Therefore, Project Hunar in its endeavour to train and skill village youth as tractor mechanics and operators in order to increase their employability in the agricultural sector, has positively contributed to a change in alumni's economic and social status, and has impacted their household's income and prioritization of expenses.

In summary the project clearly showcases a positive return on investment in financial terms and a positive social impact return.