

**Livelihood Assistance to the Poorest Tsunami  
Affected Households in Sri Lanka**

**Post-Intervention  
Individual Household Economy  
Survey Results**

**Save the Children in Sri Lanka**

1<sup>st</sup> Draft Report

29 May 2010

**Survey Co-ordinator:** Vasavan Arumugam, Save the Children in Sri Lanka

**Data Collection:** Save the Children in Sri Lanka

**Consultation on Study Design, Analysis and Report Writing:** Mark Lawrence, FEG Consulting

## **GLOSSARY**

SCiSL	Save the Children in Sri Lanka
IGA	Income generating activity
UCT	Unconditional Cash Transfer
IHEA	Individual household economy analysis
pppd	per person per day
pppm	per person per month

# CONTENTS

1	Summary .....	4
2	Introduction .....	7
2.1	Project Description .....	7
2.2	Evaluation of Project Objectives and Expected Outcomes for Children .....	8
2.3	Statistical Analysis .....	9
3	Results .....	11
3.1	Sample Size .....	11
3.2	Change in Household Status with Time .....	11
3.3	Correction for Inflation .....	12
3.4	A Methodological Issue .....	12
3.5	Basic Data and Results Summary .....	13
3.5.1	Asset Holdings .....	13
3.5.2	Food Consumption .....	13
3.5.3	Income, Expenditure & Debt .....	14
3.6	Detailed Results, by Project Objective .....	15
3.6.1	Objective 1 – Success of IGAs and Reduction in Poverty Level .....	15
3.6.2	Objective 2a – Total Food Intake .....	18
3.6.3	Objectives 2b & 2c – Access to Education & Health Care .....	20
3.6.4	Expected Outcomes for Children 1 – Quality of Diet .....	22
3.6.5	Expected Outcomes for Children 2 – Child Labour .....	23
3.6.6	Expected Outcomes for Children 3 – Child Care .....	24
3.6.7	Expected Outcomes for Children 4 – Child Abuse & 5 family Reunification....	25
3.7	The Performance of Different IGAs Compared .....	26
3.7.1	Basic Data .....	26
3.7.2	IGA Performance, by Type of IGA.....	27
4	Discussion .....	32
5	Appendices .....	34
5.1	Inflation – Food Basket Composition and Prices .....	34
5.2	Results Tables .....	35

# 1 SUMMARY

Since October 2007, Save the Children in Sri Lanka, with funding from the American Red Cross, has implemented a poverty reduction project in three tsunami- and conflict-affected districts of eastern Sri Lanka (Batticaloa, Trincomalee and Ampara). The project targeted households with a child-related issue thought to be related to poverty. Beneficiary households all had one or more children facing a nutritional, an educational or a child-protection problem.

Two strategies were pursued to achieve the project's objectives. The first was to make unconditional regular monthly **cash transfers** to all beneficiary households. These were continued for between 1 and 2 years, depending upon the success of the second strategy, which was to provide **lump sum grants** to support the creation of new IGAs. Beneficiaries of lump sum grants also received

technical support from the Business Development Service (BDS) and other government extension services.

This report summarises the findings from the pre- and post-intervention IHEA surveys carried out by Save the Children in Sri Lanka to help evaluate the impact of the project. Two groups were surveyed, beneficiaries and a matched control group (to provide evidence of changes affecting the poorest households in the absence of any intervention). The surveys focussed on access to food and on income and expenditure at household level. The periods covered by the two surveys were the year before intervention (Mar'07-Feb'08) and

<b>Table 1: Summary of Main Findings, by Project Objective</b>	
<b>Objective:</b>	<b>Outcome following Intervention:</b>
1) Half of the targeted households with sustainable IGAs will earn an income that exceeds the <i>national poverty line</i> on a sustainable basis	<b>Objective not achieved.</b> 36% of beneficiary households were above the poverty line following intervention. This compares to 13% above the poverty line before intervention
2) Half of the targeted households unable to earn an income that reaches the poverty line will have at least fulfilled their <i>basic needs</i> Basic needs will be considered met when:	
Each individual consumes their minimum daily calorific requirements	<b>Objective achieved.</b> Food intake was close to 100% of minimum requirements for the beneficiary group and higher than in control group
Each child regularly accesses an education facility which provides for his/her level of education	<b>Objective achieved.</b> <ul style="list-style-type: none"> <li>• Improved school attendance</li> <li>• Evidence of increased expenditure on education</li> </ul>
Each child accesses adequate healthcare when required.	<b>No Evidence in Support of Objective.</b> <ul style="list-style-type: none"> <li>• No change in expenditure on child health</li> </ul>
<b>Expected Outcomes for Children:</b>	
Improved quantity and quality of diet	<b>Objective achieved.</b> <ul style="list-style-type: none"> <li>• Improved access to food at household level</li> <li>• Evidence of improved dietary quality (fruit/veg especially)</li> </ul>
Reduced child labour	<b>Objective not achieved.</b> <ul style="list-style-type: none"> <li>• No evidence child labour has decreased</li> <li>• Evidence of involvement of boys in IGAs in female-headed households</li> </ul>
Improved child care (caregivers able to remain at home)	<b>Limited Evidence in Support of Objective.</b> <ul style="list-style-type: none"> <li>• No direct evidence from IHEA</li> <li>• Child care constraints may have limited success of IGAs in female-adult high dependency households</li> </ul>
Reduced abuse	<ul style="list-style-type: none"> <li>• No reported cases of abuse</li> </ul>
Reduced separation from families and institutionalisation	<ul style="list-style-type: none"> <li>• 28 children reunited with their families</li> </ul>

the second year of intervention (Mar'09-Feb'10).

The current report is structured around the project's objectives and the expected outcomes for children, with analyses presented in relation to each of these. The main findings from this aspect of the assessment are summarized in Table 1.

A number of analyses were out carried to investigate the outcomes for potentially disadvantaged households (e.g. female-headed households, households with high dependency ratios and households classified as destitute before intervention). The results indicate that these households benefited as much from the intervention as other types of household – a very positive finding. This applies to all the findings in Table 1. A complicating factor, however, is that the status of many of these households changed between the two surveys (e.g. because the female head of a household married, turning a female-headed household with a high dependency ratio at survey 1 into a male-adult household with a low dependency ratio at survey 2). These changes may also have contributed to improvements in economic status between the surveys.

According to the project proposal, 70% of households were expected to start an IGA (65% did so), with 50%

Type of beneficiary	Expected % of beneficiaries	Actual % of beneficiaries
1. IGA – successful	50%	43%
2. IGA – unsuccessful	20%	22%
3. Cash Transfer Only	30%	35%

achieving success (vs 43% actually), see Table 2. (For the purposes of this analysis, a successful IGA is one that generated enough income to bring the income of an average beneficiary household up to the poverty line. For the post-intervention year, this is an IGA that generates Rs 726 pppm or more.)

Once the beneficiary group is disaggregated according to the success of the IGA, a number of important findings emerged:

- The unconditional cash transfer was additive to total income – there is no evidence that households receiving the transfer generated less income from other sources, including gifts from family and friends.
- Households with successful IGAs generated less income from other sources, most significantly from employment and self-employment. This reduced the overall effect of IGAs in increasing total income.
- Those with successful IGAs also tended to receive fewer gifts from relatives and friends and relied less on other sources of income, including loans and asset sales.

Taken together, these findings indicate greater self-reliance in the successful IGA group, with less dependence on others and on unsustainable sources of income such as asset sales. Among households with a successful IGA, 58% achieved a total income above the poverty line.

In relation to the IGAs, the following results are noteworthy:

- The 65% of households that received cash grants to start an IGA invested an average Rs 24,360 (USD 215) in a wide range of assets from poultry, cages to keep them in, canoes and nets for fishing, scales and tables for small business activities, etc. Of households that reported buying assets, only 5% report that they have since been sold or are no longer operational.

- The average total investment (fixed plus working capital) was Rs 49,059 (USD 434).
- The average return on capital invested was 181% per year (after adjusting for inflation). The most successful types of IGAs (judged in terms of income generated in the first year) were fishing and carpentry/mechanics, followed by small business. The least successful were those involving livestock (possibly because one year is too short a period in which to assess return on these activities).
- Most of the income generated appears to have been used to fund current expenditure. There is little evidence of investment in non-IGA-related assets (e.g. land, livestock) and it appears that working capital declined by 9% over the first year of operation (after taking inflation into account). There is also no evidence of any change in the level of non-IGA related debt as a result of the intervention.
- 10% of IGAs failed completely (i.e. generated no income or a loss in the first year of operation)
- 49% of IGAs were implemented by women. IGAs implemented by women generated on average half the income of IGAs implemented by men. The difference is not explained by any difference in the level of capital grant provided initially. The main reason for the difference is the type of IGA implemented. The most successful IGAs (fishing and carpentry/mechanics) were implemented almost exclusively by men, and the least successful (poultry, handicrafts, sewing/tailoring) predominantly by women<sup>1</sup>. The only relatively successful type IGA implemented by women was small business.
- 21% of households supplemented their capital grant from SCiSL with money (mainly loans) from other sources. Associated with this, in February 2010, 13% of households participating in IGAs had outstanding debts associated with their IGAs. The level of indebtedness was modest however (equivalent to an average 8% of annual income). Most of these loans were taken out by households implementing the more successful types of IGA. This may indicate that involvement in a successful IGA resulted in greater access to credit for some households.

---

<sup>1</sup> Perhaps surprisingly, the much lower IGA income generated by women did not feed through into significant differences between female-adult and male-adult households. This is because many IGAs in female-adult households were implemented by teenage boys below the age of 19.

## 2 INTRODUCTION

### 2.1 PROJECT DESCRIPTION

Since October 2007, Save the Children in Sri Lanka, with funding from the American Red Cross, has implemented a poverty reduction project in three tsunami- and conflict-affected districts of eastern Sri Lanka (Batticaloa, Trincomalee and Ampara).

The project targeted households with a child-related issue thought to be related to poverty. Beneficiary households all had one or more children facing a nutritional, an educational or a child-protection problem, as follows:

**Nutritional Issues:** growth faltering as detected by routine growth monitoring.

**Educational issues:** Failure to start school on time, irregular attendance and school drop-outs.

**Child Protection Issues:** Children that are neglected or abused, or at risk of separation (institutionalisation), or are working.

The aim of the project was to provide additional income to the poorest tsunami-affected households, to lift them out of poverty, and to generate specific positive outcomes for children (improved nutritional status, better educational outcomes and fewer problems of child protection).

Two strategies were pursued to achieve the project's objectives. The first was to make unconditional regular monthly **cash transfers** to all beneficiary households. These were continued for between 1 and 2 years, depending upon the success of the second strategy, which was to provide **lump sum grants** to support the creation of new IGAs. Beneficiaries of lump sum grants also received technical support from the Business Development Service (BDS) and other government extension services. Beneficiaries with successful IGAs received unconditional cash transfers for the first year of the project only. Beneficiaries with unsuccessful IGAs, and those unable to initiate an IGA, received unconditional cash transfers throughout the two years of the project. Disbursement of unconditional cash transfers began in April 2008 and continued until April 2010.

**Table 3: Types of Beneficiary & Assistance to be Provided**

Type of beneficiary	Expected % of beneficiaries	Assistance in:	
		Year 1	Year 2
1. IGA – successful	50%	Cash grant + cash transfer	Income from IGA only
2. IGA – unsuccessful	20%	Cash grant + cash transfer	Cash transfer (50% of year 1 amount)
3. Cash Transfer Only	30%	Cash transfer	Cash transfer (100% of year 1 amount)

The project included a research component, testing the hypothesis that cash transfers and cash grants can alleviate poverty, increase income and help to resolve child-specific problems related to nutrition, education and protection. If this is true, then the hope is that it will provide a powerful argument for strengthening the GoSL social protection schemes called Samurdhi and PAMA (Public Welfare Assistance Allowance).

For the purposes of evaluating the project, measurements were made of two groups; beneficiaries and a matched control group. The control group was intended to provide evidence of changes affecting the poorest households in the absence of any intervention.

Two types of survey were conducted at the beginning and end of the project; a nutrition survey to assess changes in nutritional status and associated factors (e.g. infant feeding practices, dietary diversity scores, etc.) and an individual household economy assessment to measure the effects of the project on household food and cash income and on patterns of expenditure, with particular reference to patterns of income generation by children (child labour) and patterns of expenditure on children (e.g. education & health). Other measures of outcome, including school attendance and levels of child abuse, were monitored regularly throughout the project.

The current report presents the results of the post-intervention IHEA assessment, with an analysis of changes since the pre-intervention survey. The periods covered by the two surveys are:

**Pre-Intervention Survey:** Mar'07-Feb'08

**Post-Intervention Survey:** Mar'09-Feb'10

Further details of the project design, including selection of villages and beneficiaries to participate in the project are given in the IHEA baseline report<sup>2</sup>. That report also contains a description of the IHEA assessment methodology.

## 2.2 EVALUATION OF PROJECT OBJECTIVES AND EXPECTED OUTCOMES FOR CHILDREN

Box 1 summarises the project goal, objectives and expected outcomes for children. For this report, the IHEA survey results are analysed and presented in relation to each of these objectives and expected outcomes. This is to help evaluate the extent to which each objective and outcome has been achieved.

### Box 1: Project Goal and Objectives

**Project Goal:** The poorest tsunami-affected households are lifted out of extreme poverty and enabled to meet their survival and development needs

**Objectives:**

- 1) Half of the targeted households with sustainable IGAs will earn an income that exceeds the *national poverty line* on a sustainable basis
- 2) Half of the targeted households unable to earn an income that reaches the poverty line will have at least fulfilled their *basic needs*

Basic needs will be considered met when:

- Each individual consumes their minimum daily calorific requirements
- Each child regularly accesses an education facility which provides for his/her level of education
- Each child accesses adequate healthcare when required.

**Expected Outcomes for Children:**

- Improved quantity and quality of diet
- Improved health
- Access to education
- Reduced child labour
- Improved child care (caregivers able to remain at home)
- Reduced abuse
- Reduced separation from families and institutionalisation

<sup>2</sup> Livelihood Assistance to the Poorest Tsunami Affected Households in Sri Lanka, Pre-Intervention Individual Household Economy Survey Results. Save the Children in Sri Lanka, 22 Sept 2008.



## 2.3 STATISTICAL ANALYSIS

The pre-intervention survey report contains a detailed description of the project and survey designs and related statistical issues. The two main points from that discussion are as follows:

- 1) Even though villages and beneficiaries were selected purposively (i.e. to match certain pre-defined criteria) and not at random, it seems reasonable to treat the data as though it was drawn from a random sample of households with children's issues thought to be related to poverty living in tsunami-affected villages in Batticaloa, Trincomalee and Ampara.
- 2) The sample of villages was not large enough to examine differences between districts and livelihood zones<sup>3</sup>, and these are not analysed here.

The objective of the current analyses is to compare changes over time in two groups – beneficiary and control. Using the notation in Table 4, we want to compare the change (B2-B1) with the change (C2-C1), and show that the difference between these two sets of changes is statistically significant. In this report, we are not, for example, concerned with comparing the control and beneficiary groups before intervention (B1 vs C1). These comparisons were the subject of the pre-intervention survey report, which found that the control and beneficiary groups were well matched.

<b>Table 4: Analysis Design</b>		
	<b>Before intervention</b>	<b>After intervention</b>
Beneficiary group	B1	B2
Control group	C1	C2

The various types of statistical test carried out (basic and detailed) are described in Table 6. The basic tests look at the changes described in the previous paragraphs. The more detailed tests look at differences between various sub-groups of the beneficiary population (Table 5). The objective of the tests involving female-adult households, households with high dependency ratios and households classified as destitute before intervention was to see if these households benefited as much (or more) from the intervention as other groups.

<b>Table 5: Sub-Groups Analysed</b>	
<b>Sub-Group</b>	<b>Description</b>
Success of IGA	Division of beneficiaries into 3 groups, in line with Table 3: <b>UCT:</b> Cash transfer only <b>IG1:</b> IGA - unsuccessful <b>IG2:</b> IGA - successful
Female vs Male adult	Division of beneficiaries into 2 groups: <b>Female-adult:</b> Female-headed households without an adult male <b>Male-adult:</b> Households that include a male adult <sup>4</sup> .
Low vs High DP	Division of beneficiaries into 2 groups: <b>Low dependency:</b> ≤2 dependents per adult <b>High dependency:</b> >2 dependents per adult
Destitute vs Other	Division of beneficiaries into 2 groups, based upon their status in the pre-intervention survey: <b>Destitute:</b> Households where gifts formed the most important single source of cash income <b>Other:</b> Households where employment, self-employment or own production (crops, livestock or fishing) constituted the most important source of cash income.

<sup>3</sup> Villages were classified as belonging to one of four livelihood zones: agriculture, lagoon fishing, sea fishing and semi-urban.

<b>Table 6: Explanation of Statistical Tests</b>		
<b>Heading in Tables</b>	<b>Question Answered</b>	<b>Statistical Test Performed</b>
<b>Basic Tests</b>		
Control	Has there been a significant change over time (post vs pre-intervention survey) for the control group?	Calculates the change in the control group (C2-C1) and tests whether it is significantly different from zero.
Int vs Ctl	Is there a significant difference in the trend over time between the intervention and control groups?  If there isn't, but the change in the control group is significant, the change over time for the beneficiary group will also be significant.	Compares the change (B2-B1) vs (C2-C1) and tests whether they are significantly different from one another.
<b>More Detailed Tests</b>		
Success of IGA	Is there a significant difference, in the intervention group, between any of these sub-groups. E.g. is there a bigger change in female- vs male-adult households, or in the successful IGA group vs the unsuccessful IGA group.	Calculates the change (B2-B1) and tests whether this varies significantly between sub-groups of the population.
Female vs Male adult		
Low vs High Dependency		
Destitute vs Other		

Relatively few of the variables examined were normally distributed, and log and square root transformations were calculated to generate normally distributed variables where this was possible. For the resulting normally distributed variables, differences between groups were investigated using multiple linear regression analysis for cluster survey data, with each of the explanatory variables (survey, intervention, etc.) fitted as a series of categorical variables. For these analyses the village was defined as the primary sampling unit (PSU).

Where a simple transformation failed to generate a normally distributed variable, a categorical variable was calculated (e.g. income from male employment > 1,500, 0=no, 1=yes). In this case logistic regression analysis was carried out to perform the same analyses as described above for the normally distributed variables.

Because the analysis involved a large number of variables and many comparisons between groups, a large number of individual statistical tests were performed (over 1000). The conventional level for accepting a result as statistically significant is  $p < 0.05$ , which means there is a 1 in 20 chance that the result has arisen by chance as opposed to being 'real'. If we accepted this level of significance for the current study, then we might expect 50 results to arise by chance (1/20<sup>th</sup> of the 1000 tests performed). Clearly, this would be misleading. To avoid this problem, a more rigorous threshold was applied, and a result has only been accepted as statistically significant at the  $p < 0.01$  level, i.e. a 1 in 100 chance that the result has arisen by chance. Having said that, a few results significant at the  $p < 0.05$  are reported in the text where these appeared particularly important.

Initial data entry, data screening and coding were performed using a spreadsheet. The data were then transferred to a standard statistical package for detailed statistical analysis.

***It can be assumed that where a change or a difference is referred to in the text, this is statistically significant.***

---

<sup>4</sup> Some of these households may be female-headed, e.g. a female-headed household that includes son over the age of 18.

### 3 RESULTS

**Note:** Because of the non-random nature of beneficiary selection, the data given below are representative only of beneficiary households, i.e. households with children's issues thought to be related to poverty. The results cannot be considered representative of any wider group within the population, e.g. poor households in general.

#### 3.1 SAMPLE SIZE

91% of beneficiary and 90% of control households included in the pre-intervention survey were re-surveyed post-intervention (Table 7). The remaining households could not be located on the day of survey or refused to participate.

	<b>Pre-intervention</b>	<b>Post-intervention</b>	<b>Matched across surveys</b>
Beneficiary group	858 -5 <b>853</b>	779 -3 <b>776</b>	757 -2 <b>755</b>
Control group	305 -1 <b>304</b>	276 -1 <b>275</b>	253 -0 <b>253</b>

Due to miscoding of some household reference numbers in the post-intervention survey, the number of households that could be matched across surveys was slightly lower than the total number of households surveyed (right-hand column of Table 7). The number of interviews excluded from the sample (because of extreme values for one or other variable) is given as a negative number in each cell of Table 7, and the number of interviews included in the final analysis is given in bold italics.

#### 3.2 CHANGE IN HOUSEHOLD STATUS WITH TIME

One of the strengths of the current study is its longitudinal design, with the same households being surveyed both pre- and post-intervention. One idea was to track the experience of destitute and female-headed households over time, and to compare their experience with that of other groups. However, these analyses have been made more complicated by the finding that the status of many households changed between the two surveys. For example, only 77% of households classified according to their household composition at the first survey had the same composition two years later (Table 8).

Household composition pre-intervention	Status at Post-Intervention Survey		
	%with same status	%becoming mh-ld <sup>1</sup>	%with other status
Male-adult, low dependency	85%	-	15%
Male-adult, high dependency	51%	43%	6%
Female-adult, high dependency	62%	29%	10%
Female-adult, high dependency	30%	55%	15%

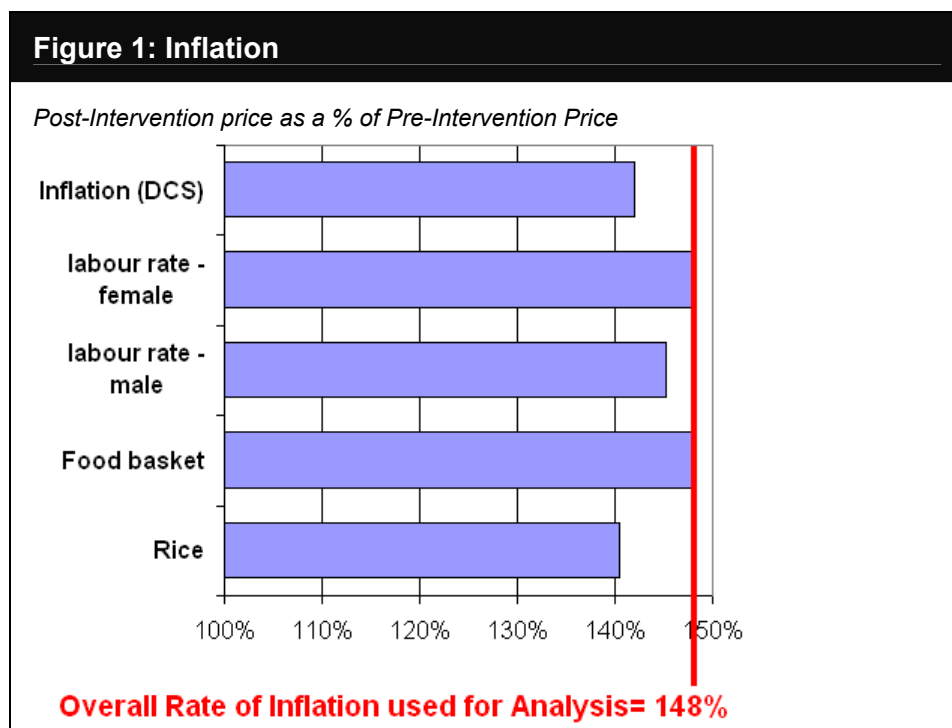
<sup>1</sup>mh-ld = male-headed, low dependency

The differences are most striking for female-adult high dependency households. Only 30% of these had the same status 2 years later; many had 'acquired' an adult male and become male-headed low dependency households. For some single women to marry is expected, but this does seem to be a very high level of change. The main explanation relates to the end of the civil war, and the return of displaced people to their home of origin. This has led to the re-unification of many previously female-adult households (and the creation of some new

ones, as displaced men leave one household for another). Another possible explanation is that the greater wealth resulting from the IGAs started by the current project has helped some women to marry.

### 3.3 CORRECTION FOR INFLATION

There has been significant inflation in the two years between the pre- and post-intervention surveys. According to the Government Department of Census & Statistics (DCS) inflation in 2007-08 (the pre-intervention year) was 15.8%, and in 2008-09 was 22.6%, giving a cumulative increase in prices over the 2 years between surveys

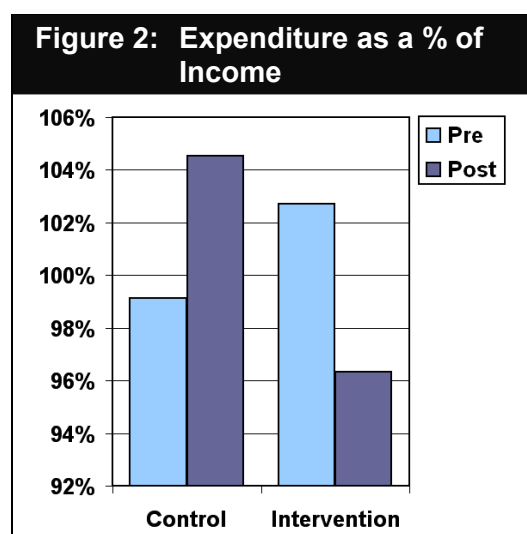


of 42%. This official government rate of inflation is compared with selected data from the pre- and post-intervention surveys in Figure 1. These data suggest similar increases in the price of food and of the daily labour rate. We have taken the increase in the price of a mixed basket of food items (as purchased by households in the pre-intervention survey), 48%, as the rate of inflation for the purposes of the current study. Further details of the price of this basket, and data for Figure 1 are given in appendices 5.1 & 5.2.

**All pre-intervention survey results presented in this report have been adjusted for inflation.** To do this, all prices, amounts of expenditure and amounts of cash income from the pre-intervention survey have been 'inflated' or multiplied by 148% to make them comparable to the results from the post-intervention survey. The 2008 poverty line (Rs 2,445) has also been multiplied by 148% to generate a poverty line for the current analysis<sup>5</sup>.

### 3.4 A METHODOLOGICAL ISSUE

One of the basic checks on data quality in IHEA is to compare income and expenditure. Ideally they should agree closely. Figure 2 shows that expenditure as a percentage of income increased in



<sup>5</sup> This has been done rather than taking the 2010 poverty line because the official poverty line has not been increased by 48% since 2008 and the project objectives were all set in relation to the 2008 poverty line.

the control group (from 99.1% pre-intervention to 104.5% post-intervention), raising concerns that expenditure may have been over-estimated in the control group post-intervention. This is important because we are seeking to compare changes in expenditure - on food, on children – in the control group with those of the beneficiary group. If expenditure has been overestimated post-intervention in the control group, this will reduce the chances of our finding any positive effect of intervention on expenditure in the beneficiary group. An effort has been made to correct for this in the current analyses. To do this, a correction factor has been derived ( $99.1 / 104.5 = 0.9515$ ) and applied to all prices and expenditures in the post-intervention survey. The results have then been presented as follows:

All **graphs** in the report present the **data without any adjustment** for possible overestimation of expenditure

All **statistical analyses** are presented in two ways: **unadjusted** and **adjusted**.

### **3.5 BASIC DATA AND RESULTS SUMMARY**

The basic results from the two surveys are summarised in Table 9, which compares the findings from control and beneficiary groups as a whole (i.e. before the beneficiary group has been subdivided by success of the IGA, into female- and male-adult households, etc. (see Table 5: Sub-Groups ).

#### **3.5.1 Asset Holdings**

Assets have been divided into two categories for the purposes of analysis, those associated with IGAs and those not. Generally speaking there has been little change in non-IGA asset holdings for either control or beneficiary groups in the last two years. There has been a small increase in hen ownership in both groups, and there is evidence of a small increase in the number of households owning land in the beneficiary group (1.4% of households post-intervention vs 0.1% pre-). This may reflect purchase of land by households engaged in an agricultural IGA.

Of the beneficiary group, 65% of households received grants to start an IGA. The average investment in fixed assets was Rs 24,360 (USD 215<sup>6</sup>). Of households that reported buying assets, only 5% report that they have since been sold or are no longer operational. A very wide range of assets has been purchased, depending upon the type of activity undertaken (e.g. poultry, cages to keep them in, canoes and nets for fishing, scales and tables for small business activities, etc.).

#### **3.5.2 Food Consumption**

The overall conclusion with regard to food intake is that there has probably been no change in the control group, while there has been a significant increase as a result of intervention in the beneficiary group.

In more detail, total food intake increased in both groups between the two surveys, with the increase being significantly greater in the beneficiary than the control group. Once the possible overestimation of expenditure (and therefore food purchase) was adjusted for (see section 3.4), the increase in food intake of the control group failed to reach significance, leading to the conclusion that food intake is probably unchanged in this group.

---

<sup>6</sup> Calculated using an exchange rate of \$1 = Rs 113, the average for pre- (111) and post-intervention (115) years.

<b>Table 9: Basic Data &amp; Results Summary for Control &amp; Beneficiary Groups</b>						
Item	Control			Beneficiary		
	Pre	Post	Stat. Sig <sup>1</sup>	Pre	Post	Stat. Sig <sup>2</sup>
Household Size	5.3	5.3	ns	5.6	5.6	ns
<b>Asset Holdings (excluding assets purchased for IGAs)</b>						
%HHs owning rainfed land	0.3%	0.4%	ns	1.4%	1.7%	ns
%HHs owning irrigated land	0%	0.4%	ns	0.1%	1.4%	p<0.001
%HHs owning Cattle	2.6%	0.4%	ns	0.6%	1.1%	ns
%HHs owning Goats	1.3%	0.4%	ns	3.9%	2.2%	ns
No. Hens per HH	0.5	1.5	p<0.001	1.5	3.1	ns
%HHs owning a bike	38%	43%	ns	50%	44%	ns
Gold owned, grams per HH	6.3	4.3	ns	5.3	6.1	ns
<b>Assets Purchased with IGA Capital Grant</b>						
% HHs receiving cash grants					65%	
Avg. fixed asset investment (Rs)					24360	
% IGA households with functioning productive assets post-intervention					95%	
<b>Food Consumption (% 2100 kcals per person per day)</b>						
Unadjusted <sup>3</sup>	87%	94%	p<0.001	86%	101%	p<0.001
Adjusted <sup>3</sup>		90%	ns			p<0.001
<b>Income, Expenditure &amp; Debt</b>						
Cash Income, Rs pppm <sup>4</sup>	2444	2589	ns	2535	3429	p<0.001
Cash Income, USD pppd	0.71	0.75	ns	0.74	1.00	p<0.001
Expenditure as a % income	100%	105%	p=0.001	103%	98%	p<0.001
Debt at and of year, Rs per HH <sup>4</sup>	15,918	19,052	ns	18,544	15,862	ns
Cash value of own food <sup>5</sup>	407	356		357	434	
Total Income (Cash plus Food)	2851	2945	ns	2892	3863	p<0.001
%HHs above 2008 national poverty line- inc. UCT <sup>6</sup>	14%	13%	ns	14%	53%	p<0.001
%HHs above 2008 national poverty line- exc. UCT <sup>7</sup>	-	-	-	-	36%	p<0.001

**Notes:**

<sup>1</sup>Statistical significance relates to post- vs pre- comparison, see Table 6.

<sup>2</sup>Statistical significance relates to change between surveys, beneficiary vs control, see Table 6.

<sup>3</sup>The adjustment is for possible over-estimation of expenditure in the control group post survey, see section 3.4.

<sup>4</sup>Pre-intervention data adjusted to 2010 values for inflation, see section 3.3.

<sup>5</sup>Own food includes crop, livestock and fish production (after subtracting input costs), plus in-kind payments, gifts and food aid.

<sup>6</sup>2008 poverty line adjusted for inflation, see section 3.3.

<sup>7</sup>Note that for the poverty line analysis, all sources of food and cash income have been included, except for the UCT, which will be discontinued. Specifically, food aid (mainly Samurdhi and school feeding) has been included, on the assumption that beneficiary households will continue to receive these forms of assistance, as they did in the post-intervention year.

---0---

### 3.5.3 Income, Expenditure & Debt

The combination of unconditional cash transfers plus IGAs led to an approximately 35% increase in income in real terms, and to a significant increase in the percentage of households above the poverty line (53% post-intervention, compared to 14% pre-

intervention<sup>7</sup>). This compares with no significant change in income and poverty level over the same period in the control group.

The unconditional transfers, which will not be continued beyond the life of the project, contributed significantly to these changes. Once the UCTs are stopped, the percentage of households above the poverty line will fall from 53% to 36%.

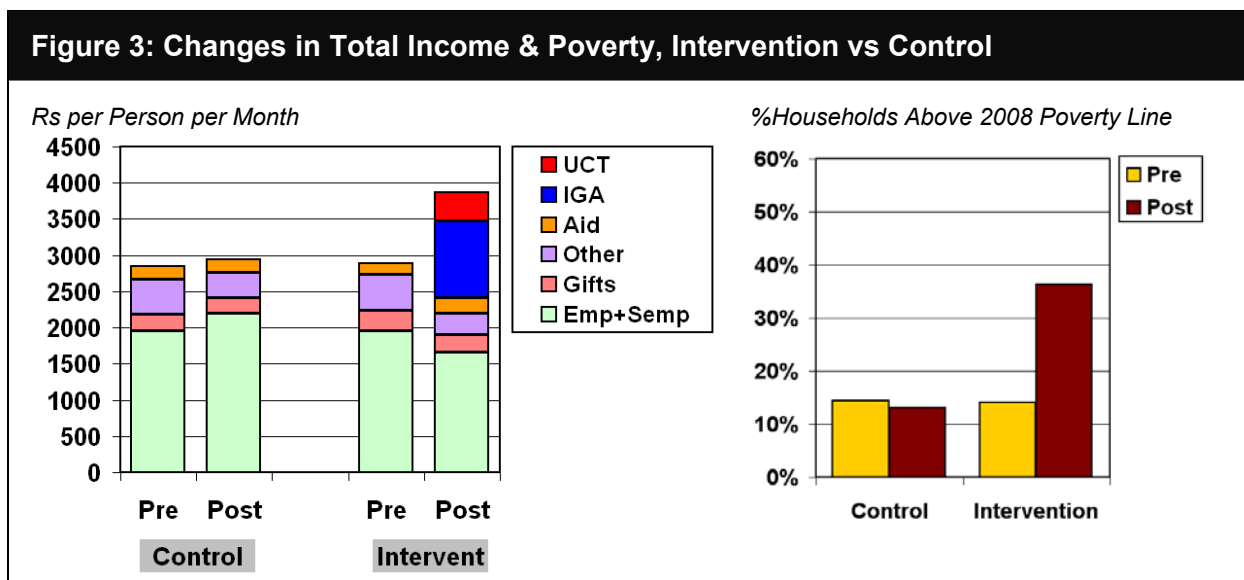
There is no evidence of any change in the level of debt, either in the control or the beneficiary group.

### 3.6 DETAILED RESULTS, BY PROJECT OBJECTIVE

This and subsequent sections begin with a statement of the project objective being evaluated, and a summary of the analyses carried out to assess whether the objective was achieved. Each section ends with tables summarising the statistical significance of the findings reported.

#### 3.6.1 Objective 1 – Success of IGAs and Reduction in Poverty Level

Objective 1	Primary Analysis	Outcome following Intervention
Half of the targeted households with sustainable IGAs will earn an income that exceeds the <u><i>national poverty line</i></u> on a sustainable basis	>=50% HHs have a <i>total</i> income above the <i>national poverty line</i> (excluding UCT)	<b>Objective not achieved.</b> 36% of beneficiary households were above the poverty line following intervention. However, this is a significant improvement compared to 13% above the poverty line before intervention



The main findings with respect of total incomes and poverty are summarised in Figure 3. Total income increased in the beneficiary group, but was unchanged in the control group. In the controls, there was evidence of an increase in income from employment and self-

<sup>7</sup> In the current report, the poverty line analysis is based upon total income, which is equal to the sum of total cash income plus the cash value of any food consumed that is produced, exchanged for labour or received as a gift (including food aid) by the household. This is different from the analysis in the pre-intervention report, which was based upon cash income only.

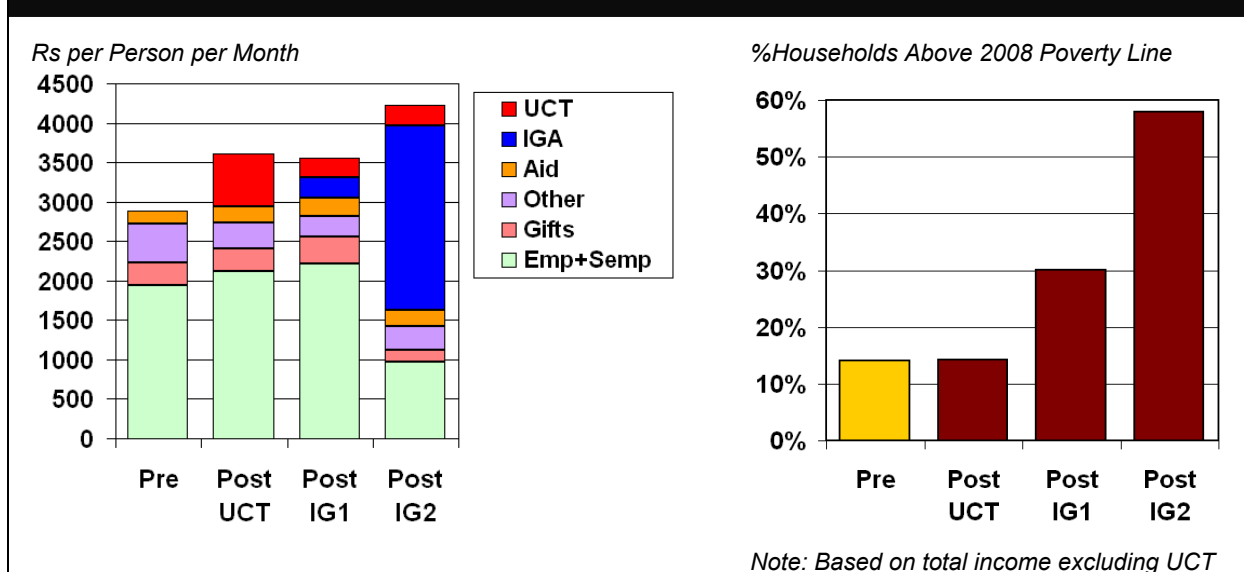
employment (which appeared to be compensated by a reduction in income from ‘other’ sources, including loans and sale of assets, although this did not reach statistical significance). This may reflect improved employment opportunities with the ending of conflict. In the beneficiary group, there was evidence of a decrease in employment and self-employment. The significance of this becomes clearer once the beneficiary group is split into three according to the success of the IGA intervention (Figure 4).

Table 10 breaks the beneficiary group into three categories according to whether they started an IGA and the success of that IGA (see Table 3). For the purposes of this analysis, a successful IGA is one that generated enough income to bring the income of an average beneficiary household up to the poverty line. For the post-intervention year, this is an IGA that generates Rs 726 pppm or more<sup>8</sup>.

According to the project proposal, 70% of households were expected to start an IGA (65% did so), with 50% achieving success (vs 43% actually), see Table 10.

<b>Table 10: Percentage of Households Implementing Successful IGAs</b>			
Type of beneficiary	Label on Figures	Expected % of beneficiaries	Actual % of beneficiaries
Cash Transfer Only	<b>UCT</b>	30%	35%
IGA – unsuccessful	<b>IG1</b>	20%	22%
IGA – successful	<b>IG2</b>	50%	43%

**Figure 4: Changes in Total Income & Poverty, by Success of Intervention**



Note: UCT distributions continued for the successful IGA group until April 2009, which explains the presence of some UCT for this group (since the period covered by the post-intervention survey was Mar'09-Feb'10).

Once the beneficiary group is disaggregated according to the success of the IGA, a number of important findings emerge:

<sup>8</sup> The calculation of a successful IGA is as follows:

Gap to be bridged in the baseline year = Poverty line (Rs 2445) – Total income (food plus cash, Rs 1954) = Rs 491 pppm. Adjusting for inflation gives Rs 491 x 1.48 = Rs 726 in the post-intervention year.



- The UCT was additive to total income – there is no evidence that households receiving the unconditional cash transfer generated less income from other sources, including gifts from family and friends.
- Households with successful IGAs generated less income from other sources, most significantly from employment and self-employment<sup>9</sup>. This reduced the overall effect of the IGA in increasing total income.
- Those with successful IGAs also tended to receive fewer gifts from relatives and friends (p<0.05) and relied less on other sources of income, including loans and asset sales (p<0.02).

Taken together, these findings indicate greater self-reliance in the successful IGA group, with less dependence on others and on unsustainable sources of income such as asset sales. Among households with a successful IGA, 58% achieved a total income above the poverty line.

<b>Statistical Analysis: Total Income (Cash+Food), by Intervention &amp; Success of IGA</b>			
<b>Item</b>	<i>Control</i>	<i>Int vs Ctl</i>	<i>Success of IGA</i>
Total income	Ns	p<0.001	p<0.001
Total income (exc. UCT)	Ns	p<0.01	p<0.001
Employment & Self-Employment	p=0.001	p<0.001	p<0.001
Aid	Ns	ns	ns
Gifts	Ns	ns	p<0.05
Other	Ns	ns	p<0.02
UCT	Ns	p<0.001	p<0.001
IGA	Ns	p<0.001	p<0.001
%HHs above 2008 national poverty line-exc. UCT	Ns	p<0.001	p<0.001
Debt at and of year, Rs per HH	Ns	ns	ns

Further analyses carried out to compare the effect of the intervention on different types of household (e.g. female-adult households) indicated that these were just as likely to benefit from the effects of intervention (increased income, reduced poverty) as other types of household (see the second of the two tables summarizing statistical significance below). This is obviously a very positive finding. However, it appears to be at odds with another finding, reported in section 3.7.2, that IGAs implemented by women were much less likely to be successful than those implemented by men. Why, then, was the difference between female- and male-adult households not significant (since, presumably, most IGAs in these households were implemented by women)? Well, this presumption is wrong - many IGAs in female-adult households were in fact implemented by males (presumably teenage boys rather than young children, see section 3.6.5).

One other thing should also be borne in mind in relation to these findings. This is that the status of many households changed from one survey to the next. This is most important in the case of households classified as destitute in the pre-intervention survey. Changes in the economic status of these households might then be due to the effect of intervention, but they might also be due to a change in household composition between the two surveys. For example, a destitute female-adult household that ‘acquires’ a male adult through marriage or re-unification may benefit from that change as much as from the intervention<sup>10</sup>. This might

<sup>9</sup> Either from choice, or because they did not have enough time to pursue all three activities (IGAs, employment and self-employment).

<sup>10</sup> The effect in the case of the female-adult and high-dependency ratio analyses is less because these classifications were based upon the findings from each survey individually. In other words, the

well explain the switch from reliance on gifts to reliance on employment/self-employment seen in the destitute compared to other groups (see significance table below).

<b>Statistical Analysis: Total Income (Cash+Food), by HH Type</b>			
<b>Item</b>	<i>Female vs Male adult</i>	<i>Low vs High DP</i>	<i>Destitute vs Other</i>
Total cash income	ns	ns	ns
Employment & Self-Employment	ns	ns	p<0.001(+)
Aid	ns	ns	ns
Gifts	ns	ns	p<0.001(-)
All Other	ns	ns	p=0.02
UCT	p<0.01(+)	p<0.001 (-)	ns
IGA	ns	ns	ns
%HHs above 2008 national poverty line-exc. UCT <sup>1</sup>	ns	ns	ns
Debt at and of year, Rs per HH	ns	ns	ns

Notes:

- 1) Analysis restricted to intervention group only.
- 2) Where the results are not graphed, the direction of the change is indicated in brackets after the significance level. For example, the (+) following employment and self-employment for the destitute vs other analysis indicates a bigger increase in employment/self-employment in income in this compared to other groups.

---o---

### 3.6.2 Objective 2a – Total Food Intake

<b>Objective 2</b>		
Half of the targeted households unable to earn an income that reaches the poverty line will have at least fulfilled their <i>basic needs</i>		
Basic needs will be considered met when:		
<b>Objective 2a</b>	<b>Primary Analysis</b>	<b>Outcome following Intervention</b>
Each individual consumes their minimum daily calorific requirements	Average food intake for all HHs in the beneficiary group equals their minimum food requirements	<b>Objective achieved.</b> Food intake close to 100% of minimum requirements for the beneficiary group and higher than in control group

The food intake of all beneficiary groups averages close to 100% of minimum needs following intervention (Figure 5). The main reason for this was an increase in food purchases. Food intake may also have increased in the control group, but this was not significant after adjusting for the possible overestimation of total expenditure in the control group post-intervention.

Comparing sources of food, there was a general reduction in gifts between the two surveys, which was most marked in the beneficiary group with successful IGAs (indicating their greater self-reliance). The IGAs themselves contributed little directly to total food intake (indicating that where food was generated, e.g. through fishing or vegetable production, most of this was destined for the market).

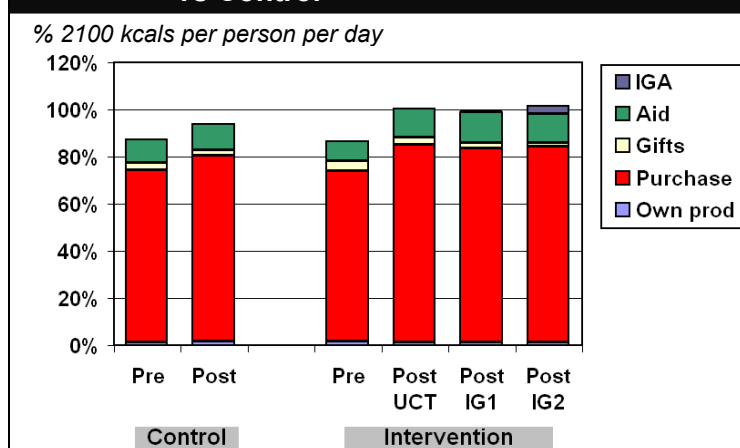
---

female-adult sub-group in the post-intervention survey includes all female-adult households at that time, no matter how they were classified in the pre-intervention survey.

Comparing different types of household revealed few differences of great significance (see table below). Male adult households were less likely than female-adult households to consume food derived from an IGA, but the difference was small.

A second finding was that the switch from gifts to purchase was more marked in previously destitute than other households, reflecting their greater self-reliance post-intervention (which, as noted above, may perhaps be explained by the change in status of many of these households between the two surveys).

**Figure 5: Changes in Food Intake, Intervention vs Control**



**Statistical Analysis: Food Intake, by Intervention & Success of IGA**

Item	Control	Int vs Ctl	Success of IGA
Total food intake	p<0.001	p<0.001	ns
Total food intake – adjusted	ns	p<0.001	n/a
Own prodn	ns	ns	ns
Purchase	p<0.001	p=0.001	ns
Purchase – adjusted	ns	p<0.001	n/a
Gifts	p<0.001	ns	p=0.001
Food aid	p<0.01	p<0.01	ns
IGA	ns	p<0.001	p<0.001

**Statistical Analysis: Food Intake, by HH Type**

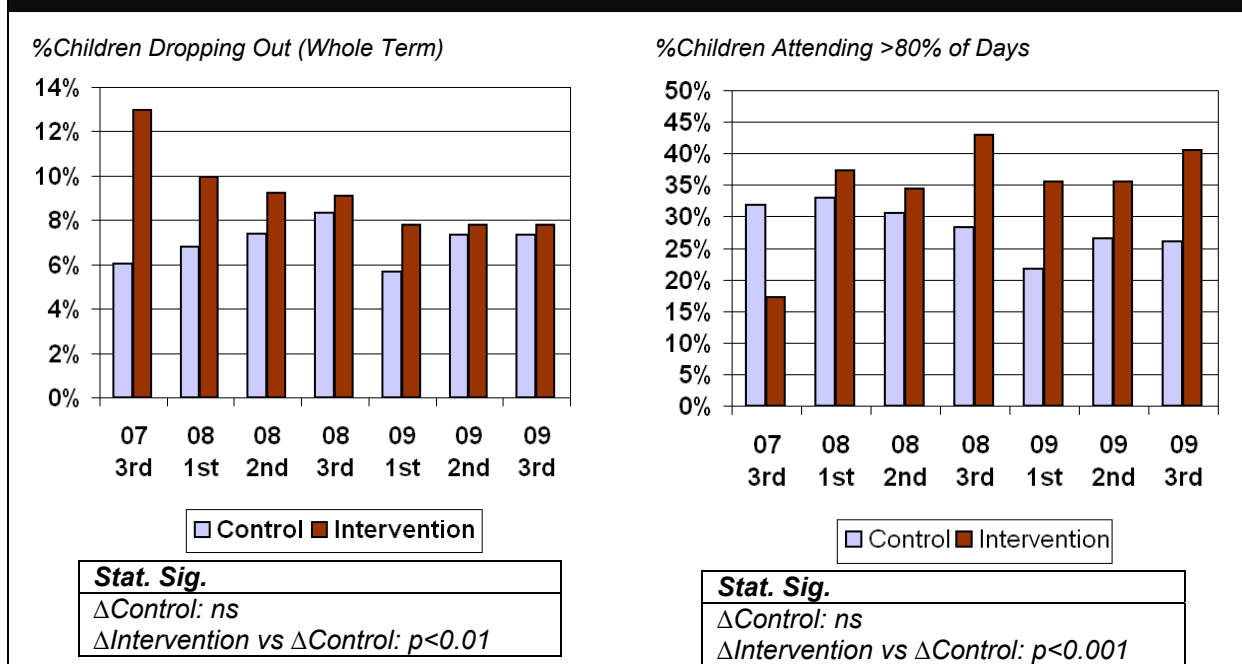
Item	Female vs Male adult	Low vs High DP	Destitute vs Other
Total food intake	Ns	ns	ns
Own prodn	Ns	ns	ns
Purchase	Ns	ns	p=0.001(+)
Gifts	Ns	ns	p=0.001(-)
Food aid	Ns	ns	ns
IGA	p=0.001(-)	ns	ns

### 3.6.3 Objectives 2b & 2c – Access to Education & Health Care

<b>Objective 2</b>		
Half of the targeted households unable to earn an income that reaches the poverty line will have at least fulfilled their <i>basic needs</i> Basic needs will be considered met when:		
<b>Objective 2b</b>	<b>Primary Analysis</b>	<b>Outcome following intervention</b>
Each child regularly accesses an education facility which provides for his/her level of education	Improved school attendance in the intervention groups	<b>Objective achieved.</b> School attendance improved significantly in the beneficiary compared to the control group.
	<b>Secondary Analysis</b>	
	Increased expenditure on education in the intervention groups	<b>Objective achieved.</b> Expenditure on education increased significantly in the beneficiary compared to the control group.
<b>Objective 2c</b>	<b>Primary Analysis</b>	<b>Outcome following intervention</b>
Each child accesses adequate healthcare when required	None	No data.
	<b>Secondary Analysis</b>	
	Expenditure on child health greater than in the control group	<b>No Evidence in Support of Objective.</b> No change in expenditure on child health

Significant improvements in school attendance were recorded over the course of the intervention for beneficiary households (Figure 6), compared with no significant change for control households. There was a significant reduction in the percentage of children dropping out of school for a whole term, and a significant improvement in the percentage of children with a good attendance record (attending school for more than 80% of days in the term).

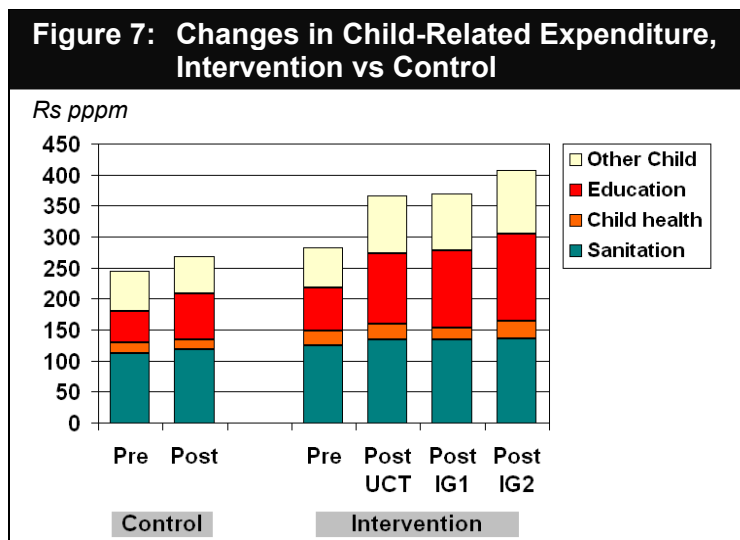
**Figure 6: Changes in School Attendance, Intervention vs Control**



Note: the symbol Δ means 'change in'.

Changes in another educational indicator (the percentage of children 'out of school', i.e. not enrolled) also showed a trend towards improvement in the intervention group, but the effect was not statistically significant.

Changes in child-related expenditure are illustrated in Figure 7. Total child-related expenditure increased in the intervention groups, and by more than in the control group ( $p < 0.001$ ). The effect was most marked in the case of education and 'other' child expenditure. 'Other' child expenditure includes expenditure on fortified and supplementary foods for children, which correlates well with a reported increase in the frequency of consumption of these foods from the nutritional survey.



There was no significant effect of intervention on expenditure on either child health or sanitation (except for a small difference between the 3 intervention groups, UCT, IG1 and IG2).

For the control group, there was a small decrease in 'other' child expenditure, which despite being small reached a high level of statistical significance. There was also some evidence of an increase in expenditure on education, although this was not significant after adjusting for the possible over-estimation of expenditure in the control group post-intervention.

There is no evidence of any differences by household type. In other words it appears that all groups benefited from the improvement in expenditure on children, including female-adult households, households with a high-dependency ratio and those that were previously destitute.

Statistical Analysis: Child-Related Expenditure, by Intervention & Success of IGA					
Item	Control		Intervention vs Control		Success of IGA
	<i>unadjusted</i>	<i>adjusted</i>	<i>unadjusted</i>	<i>adjusted</i>	<i>unadjusted</i>
Sanitation	ns	ns	ns	ns	ns
Children	ns	ns	$p < 0.001$	$p < 0.001$	ns
Child health	ns	ns	ns	ns	$p < 0.01$
Education	$p < 0.01$	ns	$p < 0.001$	$p < 0.001$	ns
Other	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	ns

Statistical Analysis: Child-Related Expenditure, by HH Type			
Item	Female vs Male adult	Low vs High DP	Destitute vs Other
Sanitation	ns	ns	ns
Children	ns	ns	ns
Child health	ns	ns	ns
Education	ns	ns	ns
Other	ns	ns	ns

### 3.6.4 Expected Outcomes for Children 1 – Quality of Diet

The project document lists 7 expected outcomes for children (see below):

#### Expected Outcomes for Children:

- Improved quantity and **quality of diet**
- Improved health
- Access to education
- **Reduced child labour**
- **Improved child care** (caregivers able to remain at home)
- **Reduced abuse**
- **Reduced separation from families and institutionalisation**

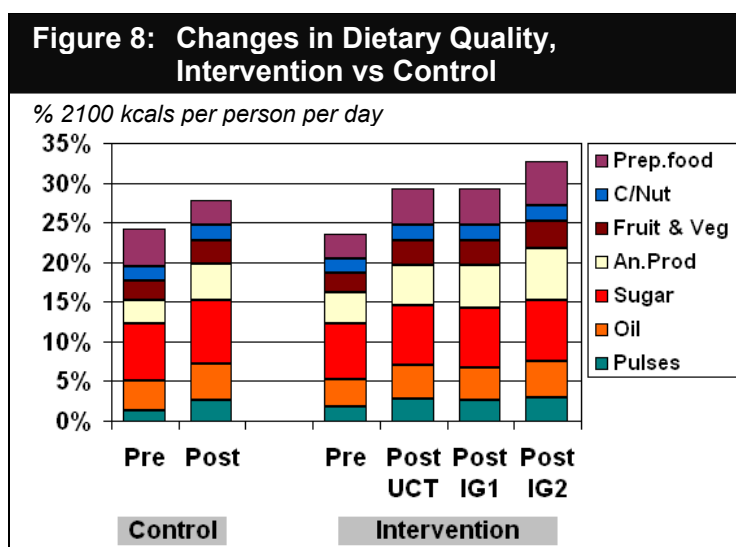
A number of these are included in the objectives already analysed in previous sections. Those that are not are indicated in bold italics. The first of these, quality of diet, is considered in this sub-section, the remainder in the following four sub-sections of the report.

Expected Outcomes for Children		
Outcome 1	Primary Analysis	Outcome following intervention
Improved quantity and quality of diet	Increase in total food intake compared to control group Greater consumption of non-staple foods (e.g. meat, veg, fish etc.) in the beneficiary compared to the control group.	<b>Objective achieved.</b> • Higher kcal intake at household level • Evidence of improved dietary quality (fruit/veg especially)

The results for total food intake at household level have been reviewed in section 3.6.2.

Figure 8 illustrates changes in the consumption of different types of non-staple food, obtained from either purchase and from own production (including IGAs).

Clearly, there were improvements in dietary quality between the two surveys, but these seem to apply equally to control and intervention groups (increased consumption of pulses, increased consumption of



animal products). Only in the case of fruit/vegetables is there a statistically significant effect of intervention. There is also weak evidence ( $p < 0.05$ ) of a greater increase in total non-staple food consumption in the beneficiary compared to the control group. And there is also evidence ( $p < 0.01$ ) of greater consumption of animal products in households with successful IGAs compared to other groups.

There is no evidence of any difference in the improvement in dietary quality according to type of household (female-adult, etc.).

<b>Statistical Analysis: Non-Staple Food Consumption (Purchase plus Own Production), Intervention vs Control</b>					
Item	Control		Intervention vs Control		Success of IGA
	<i>unadjusted</i>	<i>adjusted</i>	<i>unadjusted</i>	<i>adjusted</i>	<i>unadjusted</i>
Total non-staple	ns	ns	ns	$p=0.05$	ns
Pulses	$p < 0.001$	$p < 0.001$	ns	ns	ns
Oil	ns	ns	ns	ns	ns
Sugar	ns	ns	ns	ns	ns
Animal products	$p=0.001$	$p < 0.01$	ns	ns	$p < 0.01$
Fruit/Vegetables	ns	ns	$p < 0.01$	$p < 0.001$	ns
Coconut	$p < 0.01$	ns	ns	ns	ns
Prepared foods	ns	ns	ns	ns	ns

<b>Statistical Analysis: Non-Staple Food Consumption (Purchase plus Own Production), by HH Type</b>			
Item	<i>Female vs Male adult</i>	<i>Low vs High DP</i>	<i>Destitute vs Other</i>
Total non-staple	ns	ns	ns
Pulses	ns	ns	ns
Oil	ns	ns	ns
Sugar	ns	ns	ns
Animal products	ns	ns	ns
Fruit/Vegetables	ns	ns	ns
Coconut	$p < 0.01$	ns	ns
Prepared foods	ns	ns	ns

### 3.6.5 Expected Outcomes for Children 2 – Child Labour

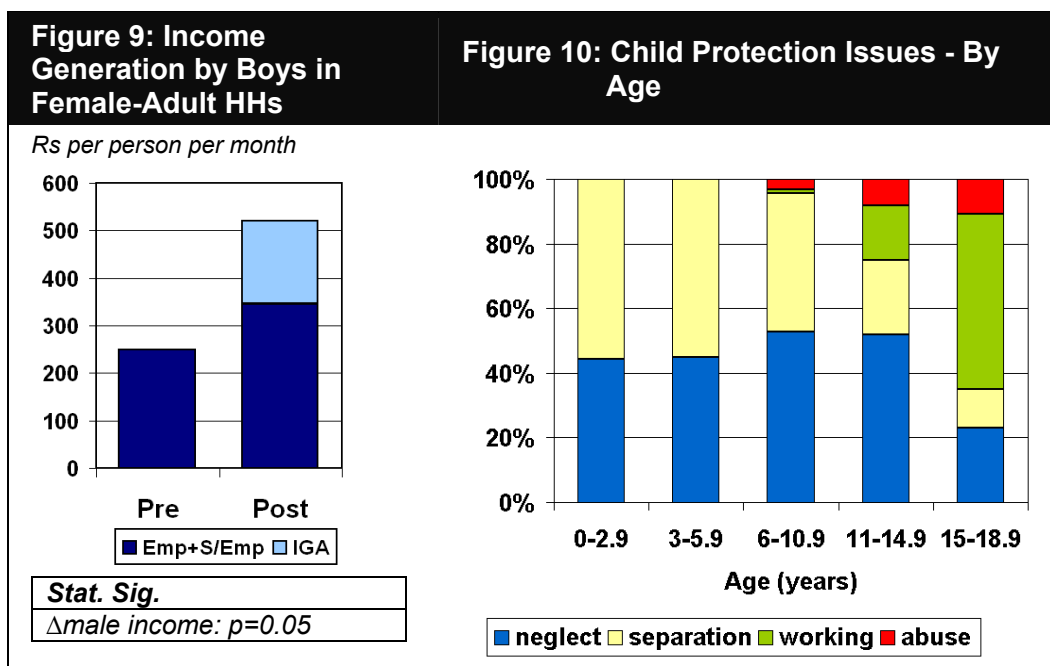
<b>Expected Outcomes for Children</b>		
<b>Outcome 2</b>	<b>Primary Analysis:</b>	<b>Outcome following intervention</b>
Reduced child labour	Reduction in income from child labour	<b>Objective not achieved.</b> <ul style="list-style-type: none"> <li>• No evidence child labour has decreased</li> <li>• Evidence of involvement of boys in IGAs in female-adult households</li> </ul>

In order to complete these analyses, the idea was to code all types of employment, self-employment and IGA income according to the gender/age of the person carrying out the activity (the available codes being male, female or child). Unfortunately, this aspect of the survey was imperfectly understood in both the pre- and post-intervention surveys, with the result that very little income generation was coded as having been done by children.

An alternative approach to the analysis was therefore adopted. This was to restrict the analysis to female-adult households. In this case, any income generation carried out by males could only be have been undertaken by boys (defined as up to and including 18 years of age for the purposes of the current project). The findings are presented in Figure 9. This

shows that, if anything, the involvement of boys in income generation was increased as a result of intervention rather than reduced. However, the effect only just reached conventional levels of statistical significance ( $p < 0.05$ ). Most importantly, it is evident that in many female-adult households, the IGAs promoted by the project were implemented by boys.

It is important to put these results in context. Figure 10 provides a breakdown of the child protection issues faced by children in the current project (before intervention). Child labour was most common in the 15-18.9 year age range, with less recorded in the 11-14.9 year age range, and almost none at lower ages. In other words, the problem is more one of teenage labour than it is child labour.

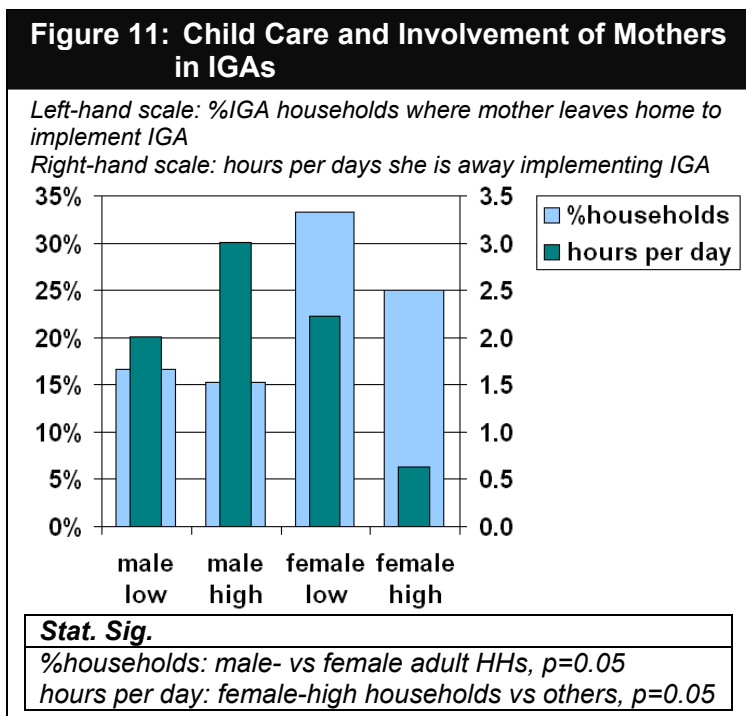


### 3.6.6 Expected Outcomes for Children 3 – Child Care

<b>Outcome 5</b>	<b>Primary Analysis:</b>	<b>Outcome following intervention</b>
Improved child care (caregivers able to remain at home)	Child care data from nutritional survey	See nutritional survey report
	<b>Secondary Analysis:</b> Time mother away from home as a result of an IGA	<ul style="list-style-type: none"> <li>• In 19% of IGA households, the mother left home for an average of 2 hours per day to implement the IGA.</li> <li>• There is evidence that in households without an alternative carer, the time the mother spent away from home was reduced from 2.0 to 0.6 hours per day.</li> </ul>



The potential impact of mothers being involved in IGA activities is illustrated in Figure 11. The levels of statistical significance are not high, but there is some evidence that more mothers had to leave home to implement the IGAs in female-adult than male-adult households. On the other hand, where there was no alternative carer (i.e. in female-adult households with a high dependency ratio), there is also evidence that less time was spent away from home than in other types of household. Presumably this had two effects. Firstly it limited the impact of IGA involvement on childcare where there was no alternative carer. Secondly, it may have limited the type of IGA chosen by these households (because of the need to remain at home) or it may have reduced the success of IGAs implemented by these households (because mothers were unable to devote sufficient time to their IGAs).



### 3.6.7 Expected Outcomes for Children 4 – Child Abuse & 5 family Reunification

<b>Expected Outcomes for Children</b>		
<b>Outcome 6</b>	<b>Primary Analysis:</b>	<b>Outcome following intervention</b>
Reduced child abuse	No formal survey data – case report data only.	No reported cases in either group
<b>Outcome 7</b>	<b>Primary Analysis:</b>	
Reduced separation from families and institutionalisation	No formal survey data – case report data only.	Total number of children re-united with their families in the intervention group = 28

Only very limited data is available on these outcomes. This is summarised in the table above.

## 3.7 THE PERFORMANCE OF DIFFERENT IGAs COMPARED

### 3.7.1 Basic Data

Data from the IHEA survey on the IGAs implemented in the current project is summarised in Table 11.

<b>Table 11: Income Generating Activities – Basic Data</b>	
%Beneficiary households provided with SCiSL grant	65%
<b>Capital Available for Investment in the IGA (Rs per household)</b>	
SCiSL: Fixed capital grant	25,474 (51%)
SCiSL: Working capital grant	20,515 (41%)
Capital from other sources	3,481 (7%)
Total Capital Available	49,470 (100%)
%HHs Supplementing SCiSL grants with money from other sources	21%
<b>Pattern of Investment in the IGA (Rs per household)</b>	
Fixed capital	24,360 (49%)
Working capital	24,699 (51%)
Not invested	411 (1%)
Total	49,470 (100%)
<b>Income &amp; Return from Investment (per household per year)</b>	
Total income from IGA (Cash plus Food, Rs)	109,629
Annual return on investment - no adjustment for inflation	222%
Annual return on investment - adjusted for 22.6% inflation in 2008-09	181%
Working capital in February 2010 (Rs)	27,562
%Change in working capital - no adjustment for inflation	12%
%Change in working capital - adjusted for 22.6% inflation in 2008-09	-9%
% of IGAs that failed completely	10%
%HHs incurring IGA-related debts	13%
Average IGA-related debt (Rs per household with debt)	19,847
Average total income of IGA beneficiaries (Food plus Cash, exc UCT)	254,237
Average IGA-related debt as a % of annual income	8%
<b>Other Data on IGAs</b>	
% Households initiating new activities	68%
%IGAs implemented by women	49%
%IGAs that require the mother to be away from home	19%
Average time spent away from home by these mothers (hours/day)	2.0

The following results are noteworthy:

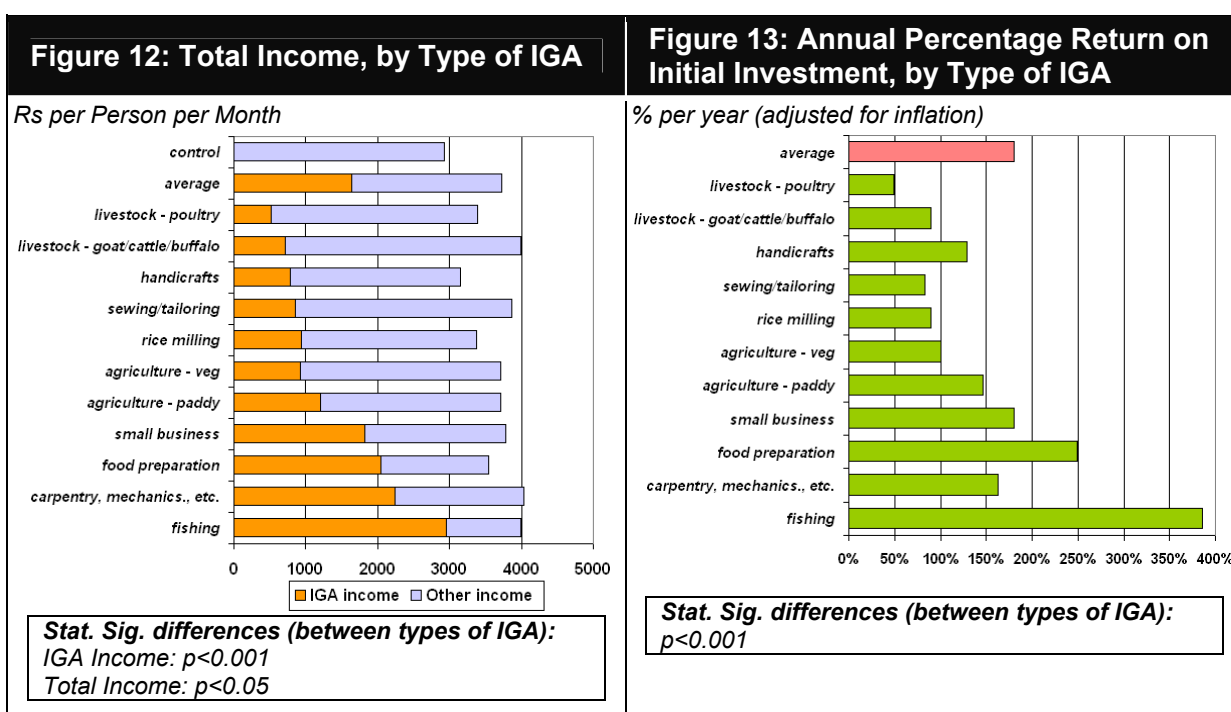
- 1) The average return on capital invested was 181% per year (after adjusting for inflation). Most of the income generated appears to have been used to fund current expenditure. There is little evidence of investment in non-IGA-related assets (e.g. land, livestock) and it appears that working capital declined by 9% over the first year of operation (after taking inflation into account).
- 2) 21% of households supplemented their capital grant from SCiSL with money (mainly loans) from other sources. Associated with this, in February 2010, 13% of households participating in IGAs had outstanding debts associated with their IGAs.

The level of indebtedness was modest however (equivalent to an average 8% of annual income. As shown later in this report, (Figure 17), most of these loans were taken out by households implementing more successful types of IGA. This may indicate that involvement in a successful IGA resulted in greater access to credit for some households.

- 3) Most households involved in an IGA implemented a completely new activity. About a third used their capital grants to expand an existing activity.
- 4) 10% of IGAs failed completely (i.e. generated no income or a loss in the first year of operation)
- 5) 49% of IGAs were implemented by women

### 3.7.2 IGA Performance, by Type of IGA

The graphs in this section show the results of a comparison of different types of IGA. The results are also presented in tabular form in Table 12.



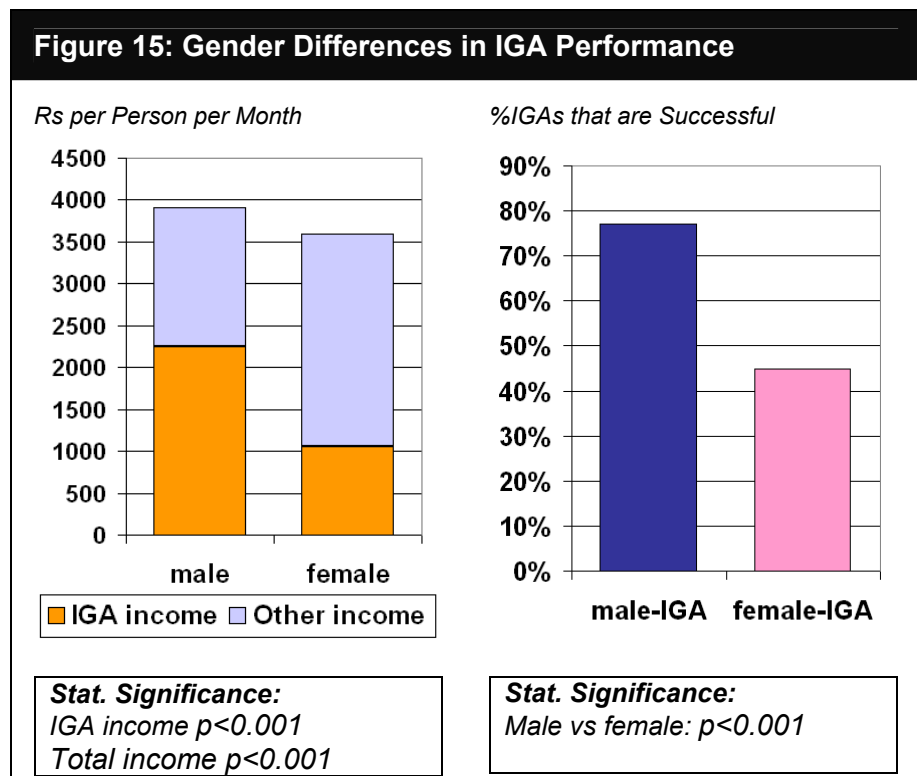
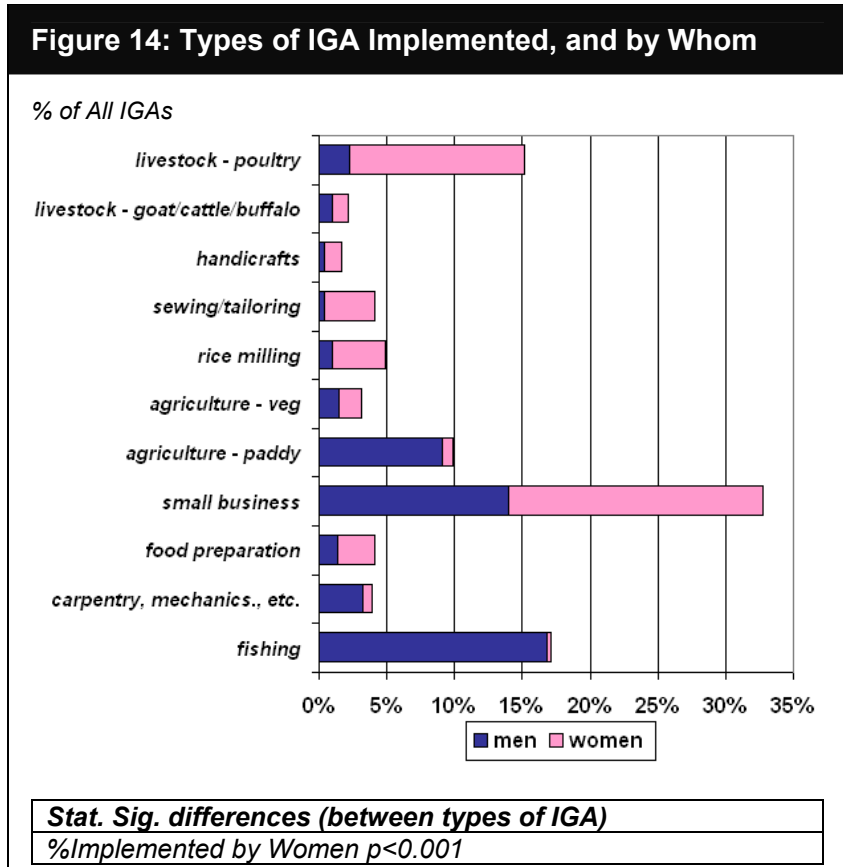
In Figure 12 the various types of IGA are listed, in order of total income generated for the implementing household in the first year of operation (Rs pppm). This shows that IGAs involving livestock generated the lowest incomes in the first year (possibly because one year is too short a period in which to assess return on these activities), while the most successful were fishing and carpentry & mechanics, followed by small business and food preparation (really also a form of small business).

In general, the overall level of investment was similar, no matter what the type of IGA (Table 12), which means that the main reason for differences between IGAs was in the rate of return on capital invested (Figure 13).

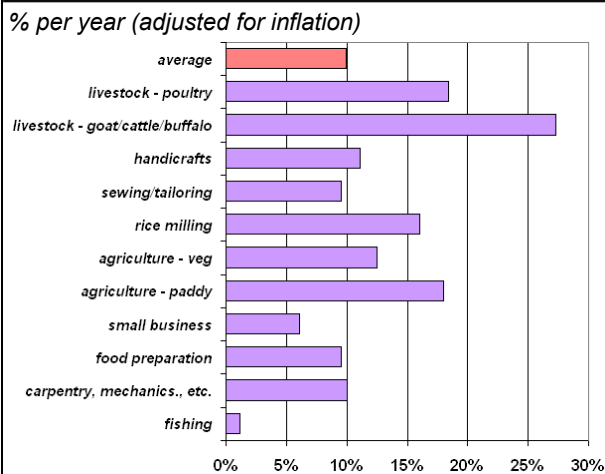
Figure 12 also shows the total income earned by households involved in different types of IGA. As has already been shown in Figure 4, the greater the income from the IGA, the less income that is generated from other sources. This means that the net impact of a successful IGA on total income is limited and the difference in total income between different types of IGA barely reaches significance.

Figure 14 shows which types of IGA were implemented most frequently (small business, fishing and poultry), and by whom. Clearly, IGAs implemented by men generated much higher incomes than those implemented by women (also see Figure 15). The only relatively successful IGA that was implemented equally by men and women was small business.

This gender-based difference in IGA performance is not explained by a difference in the level of capital investment (Table 12). The explanation for the lower IGA incomes of women is the much lower return on capital invested for women (105% per annum) than for men (259%).

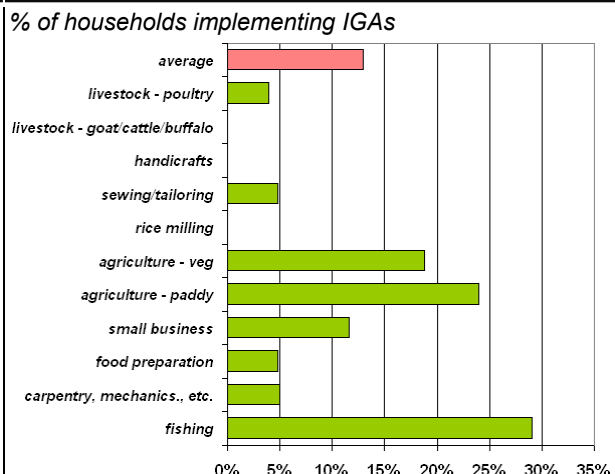


**Figure 16: Percentage of IGAs that Failed Completely, by Type of IGA**



**Stat. Sig. differences (between types of IGA):**  
 $p < 0.01$

**Figure 17: Percentage of Households with IGA-Related Debt, by Type of IGA**

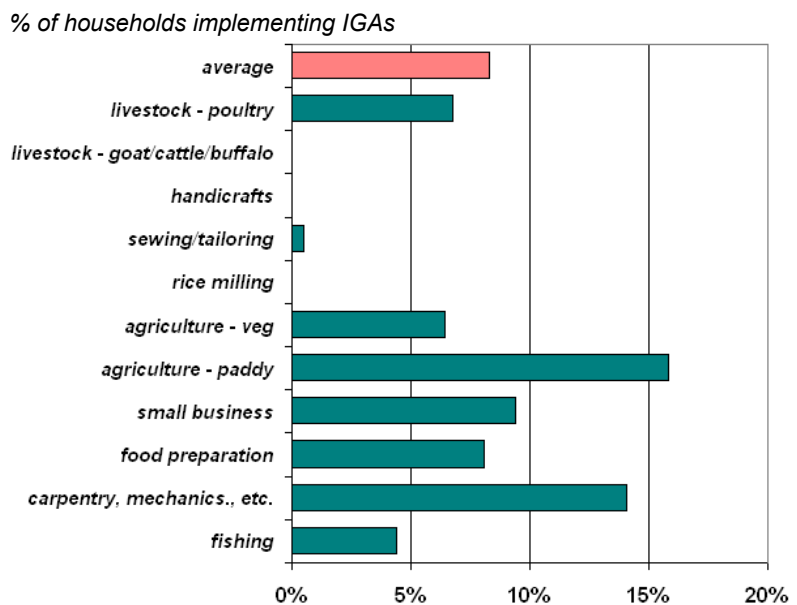


**Stat. Sig. differences (between types of IGA):**  
 $p < 0.001$

Not surprisingly, a low rate of return was also associated with a relatively high rate of total failure (i.e. no income or a loss in the first year of operation, Figure 16). Investments in livestock performed especially poorly in this respect, followed by investments in rice cultivation.

Households contracting additional debt to support their IGA tended to be implementing one of the more successful types of IGA (Figure 17). The overall level of debt contracted was modest, equivalent to 8% of annual income, and rising to a maximum of about 15% for rice cultivation and carpentry/mechanics, etc.

**Figure 18: Percentage of Annual Income\* Owed by Households with IGA-Related Debt**



\*Total Income (Food plus Cash), excluding UCT

**Stat. Sig. differences (between types of IGA):**  $p < 0.001$

**Table 12: IGA Performance, by Type of IGA & Gender of Implementer**

Item	% of all IGAs	% Implemented by women	Capital Investment				Income & Return		
			Fixed capital investment	Working capital investment	Total Investment	Fixed capital (%total)	Total Income	IGA income	Annual Return
<b>By Type of IGA</b>									
fishing	17%	2%	27,380	21,999	49,378	55%	4000	2950	385%
carpentry, mechanics., etc.	4%	20%	32,500	23,600	56,100	58%	4053	2242	162%
food preparation	4%	67%	19,667	26,442	46,109	43%	3562	2049	249%
small business	33%	58%	22,671	26,815	49,485	46%	3800	1827	180%
agriculture - paddy	10%	9%	22,024	31,062	53,086	41%	3724	1206	146%
agriculture - veg	3%	53%	27,250	20,875	48,125	57%	3730	929	101%
rice milling	5%	80%	24,000	23,200	47,200	51%	3391	933	90%
sewing/tailoring	4%	90%	24,857	18,476	43,333	57%	3878	853	83%
handicrafts	2%	78%	20,000	19,667	39,667	50%	3168	781	129%
livestock - goat/cattle/buffalo	2%	55%	18,864	30,182	49,045	38%	4000	718	89%
livestock - poultry	15%	85%	24,697	22,086	46,783	53%	3409	522	49%
average	100%	49%	24,360	24,699	49,059	50%	3743	1632	181%
significance level		***	ns	**	ns	ns	ns	***	***
<b>By Gender of Implementer</b>									
male	51%	-	26,009	25,006	51,016	51%	3913	2245	259%
female	49%	100%	22,692	24,192	46,884	48%	3601	1054	105%
significance level			ns	ns	**	ns	***	***	***

**Table 13: IGA Performance, by Type of IGA & Gender of Implementer (cont.)**

	%Failed completely	%HHs with IGA related debt	Debt as a % annual income for these HHs	%IGAs where mother away from home	Average time mother away from home (hours/day)
<b>By Type of IGA</b>					
fishing	1%	29%	4%	1%	4.3
carpentry, mechanics., etc.	10%	5%	14%	15%	2.0
food preparation	10%	5%	8%	19%	2.3
small business	6%	12%	9%	26%	1.9
agriculture - paddy	18%	24%	16%	8%	3.1
agriculture - veg	13%	19%	6%	25%	0.6
rice milling	16%	0%	0%	4%	3.1
sewing/tailoring	10%	5%	0%	29%	4.6
handicrafts	11%	0%	0%	22%	0.7
livestock - goat/cattle/buffalo	27%	0%	0%	36%	1.7
livestock - poultry	18%	4%	7%	28%	1.5
average	10%	13%	8%	19%	2.0
significance level	**	***	***	**	**
<b>By Gender of Implementer</b>					
male	6%	18%	8%	-	-
female	12%	8%	8%	38%	2.0
significance level	ns	ns	ns	n/a	n/a

## 4 DISCUSSION

The objective of this section of the report is not to provide a comprehensive review of all aspects of the project (since this will be provided by the main evaluation report), but to discuss some of the more interesting points to emerge from the current analysis.

### ***Why didn't more households reach the poverty line?***

There are many possible reasons for this (e.g. too low a level of investment, over-optimistic expectations of returns on investment), but these are beyond the scope of the current analysis. What is interesting from the current analysis is the finding that as IGA income went up, so non-IGA income went down. This had an obvious effect in reducing the number of households that reached the poverty line.

The average income generated by an IGA (successful & unsuccessful IGAs together) was Rs 1,632 ppm. Had this been simply added to pre-intervention income, total income would have risen by 56% rather than the 30% increase actually achieved by households implementing an IGA, and many more households would have been lifted above the poverty line. Why, then, did households implementing IGAs fail to continue generating income from other sources as before? The effect is most marked in the case of households with successful IGAs – the more successful the IGA, the greater the reduction in income from other sources. The most likely explanation is that people do not have enough time to pursue both the old and the new activities. Based upon the average male daily labour rate of Rs 550-560 in the post-intervention year, a man would have to work roughly 20 days per month to generate the income from employment/self-employment recorded in the baseline. This leaves little time over for other activities, including new IGAs.

Clearly, for an individual household a 30% increase in income is significant (and the average 37% increase achieved by those with successful IGAs is even more so). But, assuming that the time invested into the IGA is similar to that invested in employment/self-employment previously, the increase in return on time invested is relatively modest.

It is very interesting to note the correlation between IGA and non-IGA income. As the income from the IGA goes up, so the level of non-IGA income goes down (see Figure 10). But what does this mean? Does the low level of income from poultry (and continued 'high' level of income from other activities) indicate that little time is required for poultry-keeping, or that failure to generate enough income from poultry means that other activities cannot be abandoned? For IGAs that require considerable time input, there is clearly a difficult balance to be struck between time invested in getting the IGA going and time spent continuing to generate income from other sources. This is especially true for IGAs that do not generate immediate returns. It is possible that the unconditional transfers played a key role in helping make the transition from one form of income generation to another.

### ***Why were women so much less successful with their IGAs than men?***

The most obvious explanation is the type of IGA implemented by women. Overwhelmingly, the types of IGA implemented by women (poultry-keeping, handicrafts, sewing/tailoring, rice milling) were among the least successful. The only relatively successful type of IGA implemented by women was small business. But why did women choose these types of IGA? Cultural attitudes towards women and the activities they can carry out must have played an important part, but were there other factors? For example, were there differences between men and women in the ability to access markets, to access technical support or to obtain additional finance where this was needed? And to what extent did the requirements of



childcare influence the choice of IGA, the amount of time devoted to the IGA and therefore its success? The findings for female-headed households with a high dependency ratio are interesting in this respect (Figure 11). In these households roughly 25% of mothers had to leave home to implement their IGA, but there is evidence that they spent far less time away from home than did other households with fewer childcare constraints. To what extent did the situation of these women influence their choice of IGA? And to what extent did the requirements of childcare limit their success in implementing their IGAs?

***What have we learned about the relationship between income and child-related issues?***

The results are positive in the sense that the increased income provided by the project was spent in ways that benefited children – on more and better food for the whole household, on child-related expenditure generally and on education specifically. The question is, to what extent did the activities of project staff – sensitising beneficiary households towards the needs of children – influence the outcome? A couple of comments from project staff are relevant in this respect. Firstly, ‘beneficiaries complained that we were providing them with an unconditional transfer, but we kept telling them that it was for children, so it wasn’t unconditional at all’. Secondly, ‘initially we were telling beneficiary households that the project was to help their children, but towards the end of the project the children were telling their parents, this money is for me, so you have to spend it on me! So we had empowered the children through the project’. So what the project has shown is that increased income combined with sensitisation on behalf of children results in the improvements observed. What is less clear is whether an increase in income on its own would have resulted in the same outcomes.

***What is the significance of boys being involved in income-generating activities in female-headed households?***

The finding that boys are involved in implementing IGAs in female-headed households is an important one, since it seems to run counter to one of the projects expected outcomes for children, which was to reduce child labour. The point has already been made (section 3.6.5) that it is most probably teenagers that are involved in these activities. One point to bear in mind is the impact that child labour has. If involvement in child labour results in reduced school attendance or puts the child at risk in some way, then this is clearly undesirable. But in the present case, if there was an increase in child labour (or more correctly, child income generation), there is no evidence that it affected levels of school attendance, which were clearly improved as a result of the project. It is not possible – given the information available from the quantitative survey – to determine whether any children were put at risk as a result of their involvement in the project’s income generating activities, but – presumably – high-risk activities were not included among the activities promoted by the project.

Another point to consider is the positive effects that boys’ involvement in IGAs had on household income. Firstly, it enabled some of these households to benefit from the more successful ‘male’ type of IGA. Secondly, it will have helped overcome the problem for the mother of combining childcare with income generating activities in these households.

## 5 APPENDICES

### 5.1 INFLATION – FOOD BASKET COMPOSITION AND PRICES

<b>Composition of the Food Basket and Prices for these Items</b>				
Item	g in basket	Price		Post as a % of Pre
		Pre-Intervention	Post-Intervention	
Rice	465	51	72	140%
Wheat Flour	56	48	68	143%
Bread	56	71	97	137%
Lentils	13	97	220	227%
Other Pulses	5	129	183	142%
Oil	15	207	240	116%
Sugar	76	59	97	166%
Fresh Fish	61	138	226	164%
Dried Fish	6	206	326	159%
Meat	20	232	362	156%
Egg	11	138	212	153%
Vegetables	91	64	83	131%
Milk Powder	5	430	629	146%
Onions & Chilli	30	81	230	283%
Coconut	51	133	162	122%
Banana	40	51	57	111%
<b>Total</b>	<b>1000</b>	<b>75</b>	<b>111</b>	<b>148%</b>

Sources:

- 1) The composition of the food basket is derived from an analysis of purchasing patterns by households in the pre-intervention survey.
- 2) Prices are those reported as being paid by households in the pre- and post-intervention surveys.

## 5.2 RESULTS TABLES

In this section, the data used to prepare the figures in this report are presented in tabular form.

<b>Data for Figure 1: Inflation</b>			
Item	Price		Post as a % of Pre
	Pre-Intervention	Post-Intervention	
Inflation (DCS)	-	-	142%
Daily labour rate – female (Rs)	229	339	148%
Daily labour rate – male (Rs)	386	561	145%
Food basket (Rs/kg)	75	111	148%
Rice (Rs/kg)	51	72	140%

<b>Data for Figure 2: Expenditure as a % of Income</b>		
	<i>Control</i>	<i>Intervention</i>
Pre	99.1%	102.7%
Post	104.5%	96.3%

<b>Data for Figure 3: Changes in Total Income &amp; Poverty, Intervention vs Control &amp; Data for Figure 4: Changes in Total Income &amp; Poverty, by Success of Intervention</b>								
Rs pppm	%HHs above poverty line	Total Income	Source of Income					
			Emp. & S/emp.	Gifts	Other Income	Aid	IGA	UCT
<b>Control</b>								
Pre	14%	2851	1950	226	481	194	0	0
Post	13%	2945	2195	213	342	196	0	0
<b>Intervention</b>								
Pre	14%	2892	1947	287	493	165	0	0
Post	53%	3863	1653	241	297	215	1054	403
<b>Success of IGA</b>								
Post UCT	14%	3613	2124	287	320	211	0	670
Post IG1	30%	3561	2218	342	261	228	255	258
Post IG2	58%	4225	971	152	296	211	2339	256

<b>Data for Figure 5: Changes in Food Intake, Intervention vs Control</b>						
% 2100 kcals pppd (expenditure adjusted figures in brackets)	Total	Source of Food				
		Own prod	Purchase	Gifts	Aid	IGA
<b>Control</b>						
Pre	87%	1%	73%	3%	10%	0%
Post	90% (90%)	1%	79% (75%)	2%	11%	0%
<b>Intervention</b>						
Pre	86%	2%	72%	4%	8%	0%
Post	101%	1%	83%	2%	12%	2%
<b>Success of IGA</b>						
Post UCT	100%	1%	84%	3%	12%	0%
Post IG1	99%	1%	82%	2%	13%	1%
Post IG2	101%	1%	83%	2%	12%	3%

<b>Data for Figure 6: Changes in School Attendance, Intervention vs Control</b>								
Term	Control				Intervention			
	Out of School	Drop out	>80% attend.	total children	Out of School	Drop out	>80% attend.	total children
07 3rd	22	30	159	499	76	317	422	2448
08 1st	18	35	170	516	50	253	946	2539
08 2nd	19	38	157	515	42	234	873	2539
08 3rd	18	43	146	516	41	231	1091	2539
09 1st	19	30	115	531	39	199	911	2559
09 2nd	17	39	141	531	39	199	911	2559
09 3rd	17	39	138	531	39	199	1035	2559

<b>Data for Figure 7: Changes in Child-Related Expenditure, Intervention vs Control</b>				
Rs ppm	Sanitation	Child health	Education	Other Child
<b>Control</b>				
Pre	112	18	50	64
Post	119	15	74	61
Post (adjusted)	113	14	71	58
<b>Intervention</b>				
Pre	125	23	69	65
Post	134	26	128	97
<b>Success of IGA</b>				
Post UCT	133	25	114	94
Post IG1	134	20	125	92
Post IG2	136	29	141	102

<b>Data for Figure 8: Changes in Dietary Quality, Intervention vs Control</b>								
% 2100 kcals pppd	Staple	Pulses	Oil	Sugar	An.Prod	Fruit & Veg	C/Nut	Prep. food
<b>Control</b>								
Pre	45%	1%	4%	7%	3%	3%	2%	5%
Post	49%	3%	5%	8%	5%	3%	2%	3%
Post (adj.)	46%	2%	4%	8%	4%	3%	2%	3%
<b>Intervention</b>								
Pre	47%	2%	3%	7%	4%	2%	2%	3%
Post	53%	3%	4%	8%	6%	3%	2%	5%
<b>Success of Intervention</b>								
Post UCT	54%	3%	4%	8%	5%	3%	2%	5%
Post IG1	53%	3%	4%	7%	5%	3%	2%	5%
Post IG2	54%	3%	5%	8%	7%	4%	2%	5%

<b>Data for Figure 9: Income Generation by Boys in Female-Adult HHs</b>				
Rs ppm	Emp+S/E mp	IGA	Total	No. HHs
<b>Intervention</b>				
Pre	370	0	370	116
Post	346	175	521	124

**Data for Figure 11: Child Care and Involvement of Mothers in IGAs**

Type of Household	male low	male high	female low	female high
%households	17%	15%	33%	25%
hours per day	2.0	3.0	2.2	0.6