Save the Children

Livelihood Assistance to the Poorest Tsunami Affected Households in Sri Lanka

Pre-Intervention Individual Household Economy Survey Results

Save the Children in Sri Lanka

Final Report

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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: Alexandra King, & Mark Lawrence, FEG Consulting

GLOSSARY

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

CONTENTS

1 SUMMARY

1.1 PROJECT DESCRIPTION & STUDY DESIGN

Save the Children in Sri Lanka is, with funding from the American Red Cross, implementing a poverty reduction project in three tsunami- and conflict-affected districts of eastern Sri Lanka (Batticaloa, Trincomalee and Ampara). Implementation of the project began in October 2007 and will continue until March 2010.

The project targets households with a child-related issue thought to be related to poverty. Beneficiary households all have one or more children facing a nutritional, an educational or a child-protection problem. There are 1,194 beneficiary households, with 6,424 household members, of which 3,773 are children aged less than 19.

The aim of the project is 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 are being pursued to achieve the project's objectives. The first is to make unconditional regular monthly ***cash transfers*** to all beneficiary households. These will be continued for between 1 and 2 years, depending upon the appropriateness and success of the second strategy, which is to provide ***lump sum grants*** to support the creation of new IGAs. Beneficiaries of lump sum grants will also receive technical support from the Business Development Service (BDS) and other government extension services. Beneficiaries with successful IGAs will receive unconditional cash transfers for the first year of the project only. It is hoped that 50% of beneficiaries will fall into this category. Beneficiaries with unsuccessful IGAs, and those unable to initiate an IGA, will receive unconditional cash transfers throughout the two years of the project. Disbursement of unconditional cash transfers began in April 2008.

The project includes a significant research component. In effect, the hypothesis being tested is 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 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 the research, measurements will be made of two groups; beneficiaries and a matched control group. The control group will provide evidence of changes affecting the poorest households in the absence of any intervention. Two types of survey are being 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, will be monitored regularly throughout the project.

The most important analyses will be undertaken at the end of the study, in 2010. These will compare changes over time in the two groups, beneficiary and control. The current report presents the results of the first round of IHEA assessments. There are two objectives to this initial analysis, a) to compare the beneficiary and control groups and confirm that they are well matched, and b) to describe as fully as possible the beneficiary group. The purpose of

this second type of analysis is to better understand how different types of household might benefit from the intervention.

The IHEA baseline survey was carried out between March and August 2008. Data were collected on 858 beneficiary and 305 control households. The IHEA baseline covered the 12-month period before the cash transfers began, from Mar'07-Feb'08.

1.2 MAIN RESULTS

Beneficiary households are very poor. Less than 2% own any land, and average holdings of other assets are very low. Total cash income averaged 1,718 Rs per person per month (pppm) - roughly US$15 pppm or US$0.5 per person per day. 92% of beneficiary households fell below the national poverty line, Rs 2,445 pppm in the baseline year.

Provided there is no change in income from other sources, the effect of the cash transfers in the first year of the project should be to increase total cash income by 40%, and to reduce the percentage of households falling below the poverty line from 92% to 60%.

Total food consumption averaged 86% of the international minimum for food energy requirements (2,100 kcals per person per day) or 90% of minimum requirements once the minimum requirement has been adjusted for the unusual age and gender structure of beneficiary households.

Food aid provides 8% of minimum food needs. 60% of this (about 5% of minimum food needs) comes in the form of Samurdhi, the balance as school feeding. 94% of beneficiary households receive one or other type of food aid (84% Samurdhi, 62% school-feeding).

The average level of debt was not high, at Rs 12,461 per household, equivalent on average to 11% of annual cash income. This modest level of average debt masks significant differences between households. 38% of beneficiary households report no debt at all, while 5% of beneficiary households have Rs 50,000 of debt or more, equivalent to roughly 50% of annual cash income.

The majority of beneficiary households are male-headed and have casual labour (most of which is earned by men) as their main source of cash income. About 1 in 6 households are self-employed and 1 in 6 are destitute (i.e. dependant primarily upon gifts). Only very few (3%) have sale of own production (fish, poultry, eggs, vegetables) as their main source of cash income. About 1 in 6 of households is female-headed and without an adult male in the household. Just under half of these households are destitute, while the remainder depend primarily upon self-employment for income.

There were no significant differences in total food consumption between male- and female-headed households, or between households with a high vs. a low dependency ratio. Total cash income (per person) was higher for male-headed households with a low dependency ratio than for other groups.

Roughly three-quarters of total expenditure is on food. A high priority is given to the purchase of non-staple foods (and therefore dietary diversity), with two thirds of food expenditure on non-staple items.

Expenditure on children (excluding children's food) amounted to Rs 180 or US$1.60 per child per month, and accounted for not more than 6% of total household expenditure in the baseline year. This includes expenditure on health, education and clothing.

1.3 MAIN CONCLUSIONS

Overall, the IHEA data appear to be of good quality, judged in terms of the % of minimum food energy requirements accounted for and the level of agreement between total income and total expenditure. A valid and reliable baseline has been established against which to judge the impact of the project in two years time.

The beneficiary and control groups appear to be well matched. There were no major statistically significant differences in the results obtained for the two groups.

The results provide some clues to how the additional income provided by the project will be spent. Based upon a cross-sectional analysis of the current data, we can expect that an increase in cash income will result in an increase in food purchase, and therefore more and better food available at household level. We can also expect that expenditure on children will increase, although there is no evidence that expenditure on children is prioritised relative to other types of expenditure as total income increases.

The main conclusion is relation to project design is that many labour-poor households, including female-headed households, are economically active, and that it is wrong to characterise them as unable to participate in income generating activities because they lack labour. The results indicate that 91% of labour poor households with an adult male are economically active (mostly in the employment sector) and that 56% of labour poor female-headed households are actively engaged in either self-employment (42%) or employment (14%) activities, and generate the majority of their income from these sources. It is important that as many as possible of these labour-poor households be given access to the capital grants for IGA start-up

Female-headed households with a high dependency ratio are most likely to have children participating in child labour, making this type of household a high priority for the current project.

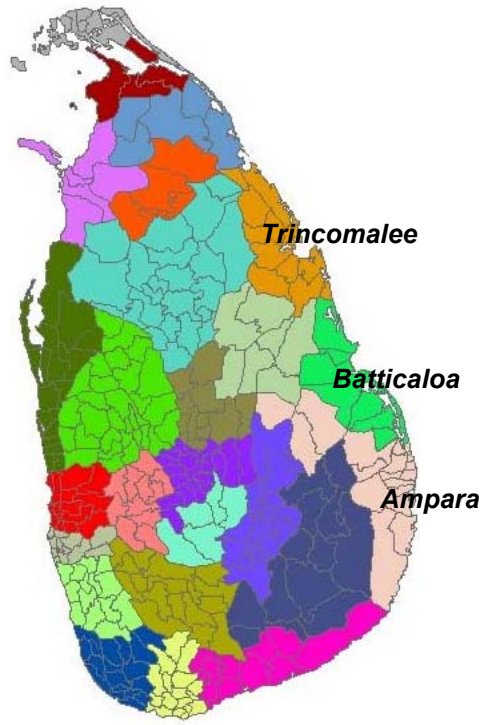
In male-headed households, women's share of total cash income is relatively small. There is considerable scope for women in these households to participate in IGAs, especially self-employment activities.

Large households have lower average cash incomes per person than smaller households, and are programmed to receive smaller cash transfers per person as well. Despite this, analyses presented in this report indicate that there is little to be gained from specifically targeting larger transfers to larger households. The simplest way of reducing the percentage of households below the poverty line still further is to increase the value of transfers across the board. A 20% increase in the value of transfers should - assuming income from other sources remains the same - reduce the percentage of households below the poverty line from 60% to 50%.
There was considerable inflation during the baseline year. Given the level of market dependence in terms of both what they buy and sell, it is important that market prices – and especially the casual labour rate –be monitored throughout the course of the project. Consideration should be given to increasing the amount of the cash transfer to compensate for inflation over time.

2 INTRODUCTION

2.1 PROJECT DESCRIPTION

Figure 1: District Map of Sri Lanka



2004 district boundaries

Save the Children in Sri Lanka (SCiSL) is, with funding from the American Red Cross, implementing a poverty reduction project in three tsunami- and conflict-affected districts of eastern Sri Lanka. The three districts are Batticaloa, Trincomalee and Ampara (Figure 1). These districts were severely affected by the 26 December 2004 tsunami. The fishing population living near the coast was hardest hit, loosing their boats, equipment and houses. Farmers in the coastal hinterland experienced flooding and salination of their land. Shopkeepers, petty traders and craftsmen lost their equipment and working capital. The tsunami was followed by a 3-year recovery programme, co-ordinated by the Government 'Task Force for Rebuilding the Nation' (TAFREN). There were three phases of intervention, beginning with cash transfers, then cash-for-work then cash grants and loans for income generating activities (IGAs). The programme came to an end in December 2007. The current project was borne out of concerns that these interventions had in many cases failed to help the very poorest households recover fully from the effects of the tsunami, and to achieve sustainable increases in their living standards.

The three districts have also suffered almost 20 years of civil conflict, with insecurity increasing again from early in 2006. The effects of civil war have included displacement and loss of land and belongings. The conflict has, obviously, also inhibited investment and economic development generally.

The project is targeting the very poorest households with the most disadvantaged children, i.e. children that have one (or more) of three different types of issue:

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.

Care has been taken to identify households where the cause of the child-related issue is economic, i.e. there is inadequate income at household level to cover the costs of an adequate diet, to pay school-related costs and so on; where low income forces children to drop out of school to earn income for the household, or forces a care-giver to seek employment away from their homes (leading to child neglect); where low income creates stresses within the household that lead to child abuse, and so on.

According to the initial project design document (SCiSL, 2006), 'to meet their basic needs, these (poorest) households require a regular, reliable and sustainable transfer of income,

equivalent to approximately 50% of the official poverty line of Rs1,650 ($16) per person per month[1]. It is estimated that this amount, together with the household income generated from other sources will alleviate 90% of the target group from food poverty and 50% from absolute poverty.'

The project goal and objectives are given in Box 1. Two strategies are being pursued to achieve project objectives. The first is to make unconditional regular monthly ***cash transfers*** to all beneficiary households. These will be continued for between 1 and 2 years, depending upon the appropriateness and success of the second strategy, which is to provide ***lump sum grants*** to support the creation of new IGAs. Further details of the project design are given in section **Error! Reference source not found.**.

The amount of the cash transfer will vary according to household size (**Error! Reference source not found.**), from 1,800 Rs per household per month up to a max Rs 4,000. The amount per person per month (pppm) will decline with increasing household size.

Cash grants will be provided to initiate a new income-generating activity. Various types of IGA are envisaged, e.g. fish vending, goat rearing, milk and curd production from buffaloes, poultry rearing, small-scale market gardening, food processing and retailing, hairdressing, etc. Business Development Service (BDS) and technical advisers from extension services will support households in the development of IGAs. 70% of beneficiary households will be targeted with the cash grant for IGA start-up. If the IGA is successful, then the cash transfers will be terminated at the end of the 1st year. Not all the IGAs are expected to succeed (i.e. enabling beneficiaries to reach the poverty line in the first year) however, and in this case, the cash grant will be continued into the 2nd year, but at a lower level (50%) than that received in the 1st year.

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

Table 1: Amount of Unconditional Cash Transfer

Household Size	Cash Transfer	
	per household per month	per person per month
2	1,800	900
3	2,500	833
4	3,000	750
5	3,500	700
6 or more	4,000	<=667

[1] The official poverty line is revised on a regular basis. The official poverty line for the IHEA baseline year, Mar'07-Feb'08, was Rs 2,445 pppm.

30% of households, i.e. those no or limited human capital and therefore unable to sustain an IGA, will receive the cash transfer throughout the 2 years of the project.

In summary, there will be 3 types of beneficiary:

Table 2: 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)

For those households initiating a successful IGA (expected to be half of beneficiary households), there will be sustainable benefits beyond the 2-year timeframe of the project. The remaining half of households – those unable to initiate a successful IGA - will receive cash assistance for the duration of the project, but will not benefit directly from the project beyond the 2-year timeframe. It is hoped, however, that these households will benefit indirectly from the lessons learned by the project, and from the results of the advocacy strategy that SCiSL proposes to implement based upon the findings.

Disbursement of the cash transfers began in April 2008. Project implementation will continue until March 2010.

2.2 STUDY DESIGN

The project has been designed primarily to assist beneficiary households, but also as a research exercise. In effect, the hypothesis being tested is 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 it will provide a powerful argument for strengthening the GoSL social protection schemes called Samurdhi and the PAMA (Public Welfare Assistance Allowance). The transfers made by these schemes are currently low, and there are concerns about how effectively they target the poorest. Only 52% of households in the lowest income decile receive Samurdhi (Dept of Census and Statistics, 2002, quoted in SCiSL, 2006[2]).

The research study design is a simple one (Table 3). Three types of assessment will be undertaken:

Table 3: Study design

	Before intervention	After intervention
Beneficiary group	X	X
Control group	X	X

'X' indicates IHEA and nutrition surveys

Nutrition Survey: to assess the impact of the project on nutritional status and other related factors (e.g. infant feeding practices, dietary diversity scores, etc.).

Individual Household Economy Assessment (IHEA): to measure the effects of the project on household food and cash income and on patterns of expenditure, with particular

[2] 'Cash for Recovery, Feasability study of a capital-based income generation scheme for tsunami-affected households in Trincomalee District, Sri Lanka', Berndt Schubert, SciSL, 2006

reference to patterns of income generation by children (child labour) and patterns of expenditure on children (e.g. education & health).

Monitoring of Education and Child Protection Indicators: to assess the impact of the project on measures such as school attendance, levels of child abuse, etc.

The nutritional and IHEA assessments will be undertaken twice, once before the intervention and once after the intervention. Since the IHEA assessment looks at food and cash income over a 12-month period, the two periods to be assessed are a) the 12 months before intervention (Mar'07-Feb'08) and b) the 2nd year of intervention (Mar'09-Feb'10). The timeframe for the assessment (March-February) is influenced by seasonal factors (see section 4.6). Two samples of households will be assessed, a beneficiary group and a control group. The control group will not benefit from any intervention over the timeframe of the study, and will therefore provide evidence of changes affecting the poorest households in the absence of any intervention. This will allow for a more objective assessment of the effects of the intervention on beneficiary households.

The most important analyses will be undertaken at the end of the study, in 2010. These will compare changes over time in the two groups, beneficiary and control. The current report presents the results of the first round of IHEA assessments. The original objectives of this first round of assessment were 1) to establish a baseline data set that will help to measure the progress of the project and, 2) to investigate (cross-sectionally) the links between household economy and nutrition, education and protection. The first objective was achieved, but following some preliminary analysis, it was decided not to pursue the second set of cross-sectional analyses. There are two main reasons for this, both related to the study design.

Firstly, the strength of the current study is its longitudinal design, i.e. the fact that a baseline survey has been conducted, an intervention will be implemented and a second post-intervention survey carried out. With this type of study design it is possible to demonstrate cause and effect, i.e. to prove that an increase in income resulted in an improvement in nutritional status, or educational outcome, etc. Even with the best cross-sectional study design, it is not possible to show cause and effect, it is only possible to show that one variable is associated with another. This is a much weaker level of analysis.

Secondly, the current study design includes households with one or other type of child-related issue, but does not include a control group of households without any child-related issues. If we had such a control group, then we could compare households with a nutritional issue against those with no issues, and perhaps begin to infer some relationships, With the current dataset, however, we can only compare households with a nutritional issue against those with an educational or child protection issue, which makes it much more difficult to separate out different effects and establish clear relationships.

Given the current strong longitudinal design, it was concluded that there is little point in attempting to anticipate the results of the study with a set of cross-sectional analyses that might well be misleading. This second set of analyses was therefore abandoned.

In relation to the first objective - the baseline analysis - there are two sub-objectives, a) to compare the beneficiary and control groups and confirm that they are well matched, and b) to describe as fully as possible the beneficiary group. The purpose of this second type of analysis is to better understand how different types of household might benefit from the intervention.

The IHEA fieldwork was carried out between March and August 2008. The fieldwork was completed initially for the beneficiary group, so that project implementation could begin as

soon as possible, and then for the control group. A separate report has been produced giving the results of the baseline nutrition survey.

2.3 SELECTION OF VILLAGES TO PARTICIPATE

A lengthy and detailed process was followed to select villages to participate in the project. Initial discussions were held at district level with the Government Agent (GA), with the aim of selecting 3-4 DS (District Secretariat) divisions in each district. Further discussions were held at DS division level, to select individual villages (GN - Grama Niladhari - Divisions). At both district and DS division levels, the guiding principles were that selected villages should have been affected (either directly or indirectly[3]) by the tsunami, and that they should have been receiving less livelihoods-based assistance than other villages at the time of initial village selection (Dec'06-Apr'07). The initial selection process resulted in a list of more than 30 GN divisions. Not all of these were found to meet fully the selection criteria (either because they were not affected by the tsunami or they were being assisted in the livelihoods sector by other NGOs), which led to the list being cut back to the final figure of 21 villages. All the households in these villages with a child-related issue linked to household poverty were included in the project – a total of 1,194 households.

Control villages were selected once the details of the research study design had been finalised, and after the selection of beneficiary villages had been completed. Discussions were held at DS level to choose GN divisions with similar characteristics to beneficiary villages, i.e. in terms of the local pattern of livelihood and the type and severity of children's issues faced. For the control group, less priority was given to the effects of the tsunami. Control villages were also selected on the basis that there were no plans for livelihoods interventions in these villages in the near future. Some of the control villages had been excluded from the beneficiary group because they had NGO-led livelihoods-based projects at the time of the initial village selection. They had since become eligible as control villages because these projects had come to an end.

The total number of villages selected, by district and pattern of livelihood, is given in Table 4. Of the 18 villages in Ampara and Batticaloa, half were directly affected by the Tsunami and half are hosting people displaced by the Tsunami.

All of the beneficiary and control villages are in government-controlled areas.

Table 4: Number of Villages by District & Pattern of Livelihood

District	Livelihood Pattern						
	Agri-culture	Lagoon Fishing	Sea Fishing	Semi Urban	Total Villages	Total HHs	No. HHs Sampled
INTERVENTION GROUP							
Ampara	4		2		6	200	145
Batticaloa		3	9		12	800	539
Trincomalee			2	1	3	194	174
Total	4	3	13	1	21	1,194	858
CONTROL GROUP							
Ampara	2	-	1		3	-	62
Batticaloa		-	4	1	5	-	183
Trincomalee		-	1	1	2	-	60
Total	2	-	6	2	10	-	305

[3] because they are hosting people displaced by the tsunami.

2.4 SELECTION OF BENEFICIARY HOUSEHOLDS WITHIN VILLAGES

The first step in selecting beneficiaries at village level was to draw up a list of all households with one or more children's issues. This amounted to approximately 20% of households in each village. The next step was to refine this list to exclude households where the cause of the child-related issue was not thought to be economic. The result was a list of about 10% of village households with both child-related issues and severe poverty.

The procedure for selecting beneficiary households was exhaustive. The initial identification of households with child-related problems was done with village-level key informants (the school principal, government officer, welfare officer, probation officer, midwife, pre-school teacher, representatives of rural development organisations and religious leaders). This was cross-checked against secondary data compiled by the community (on school attendance, growth faltering, probation, receipt of welfare etc.). The list was then reviewed and the selection of households made. The near-final list was posted in each village and feedback from the community was invited and responded to. This resulted in a final list that was shared with and endorsed by the community.

A similar, but not quite so exhaustive, procedure was used to select households for the control group. This made use of existing village committees, and required less involvement by the community as a whole.

3 THE IHEA ASSESSMENT

The purpose of the individual household economy (IHEA) assessment was to generate a reliable baseline for measuring the impact of the project on household food consumption and income and expenditure at household level.

3.1 IHEA

In household economy, the main objective is to estimate, as accurately as possible, total food consumption (by source), total cash income (by source) and total expenditure (by category of expenditure). Information is also collected on levels of asset holding, with a focus on productive assets (e.g. fishing equipment) rather than luxury items (e.g. televisions). In an *individual* household economy assessment, these estimates are made for individual households. This means that IHEA is very similar to a conventional household income and expenditure survey. The main difference is in the level of training provided to the enumerators and the level of cross-checking undertaken in the field (both of which are more intense for IHEA than is the case with many household income and expenditure surveys). The result, hopefully, is a more accurate set of results.

In HEA, an effort is made to identify all possible sources of food and cash income, and to estimate amounts of food and cash obtained from each. The same applies to the analysis of expenditure and the assessment of asset holdings. Items investigated in the current assessment are listed in Table 5. All of these data were collected during the course of an exhaustive interview at household level.

Because of the emphasis on children in the current assessment, extra care was taken to assess the types and amounts of expenditure on children. An effort was also made to identify the age and gender of the income-earner for each type of employment and self-employment.

Table 5: Sources of Food, Cash and Expenditure & Types of Asset Assessed in the Current Study			
Sources of Food	**Sources of Cash**	**Types of Expenditure**	**Types of Asset**
Crop production (rice, coconuts, etc.) Livestock production (e.g. milk) Fish & seafood production Payments in kind Purchase Food aid (School feeding, Samurdhi) Gifts Wild foods (e.g. wild vegetables)	Crop Sales (e.g. vegetables) Livestock sales (e.g. hens) Livestock product sales (e.g. eggs) Fish & seafood sales Wild food sales Employment Self-employment (e.g. firewood collection) Petty trade Gifts Aid Loans/pawning Asset sales	Staple food Non-staple food (e.g. fish, meat, pulses, oil, sugar, vegetables, etc.) Condiments (e.g. salt, spices) Beverages (e.g. tea, coffee, etc.) Prepared foods Household items (soap, washing powder ,etc.) Health (separately for adults & children) Education (books, stationary, uniforms, fees, etc.) Transport Clothes (separately for adults & children) Inputs Debt repayment Tobacco/alcohol Investment/savings	Land holding (rainfed and irrigated) Trees (coconut, mango, cashew) Livestock holdings (buffalo, cattle, goats, poultry, etc.) Fishing equipment (boats, nets, etc.) Bicycles Gold

In HEA, there are two main types of cross-check:

Checks on total food consumption: In most settings, and provided there is not an outright food security emergency, it is unlikely that total food intake will be very much below the minimum requirement for long-term survival, usually taken as 2,100 kcals per person per day (pppd). If the results from an individual household interview suggest a total consumption very much below 2,100 kcals pppd, then this signals the need for the interviewer to continue probing for additional sources of food, until the interviewer is satisfied that all possible sources have been investigated[4].

Checks on total income and expenditure: If loans are included as a source of income, it is self-evident that total income and expenditure must be equal. If they are not, then this again signals the need for the interviewer to continue probing for additional sources of cash or items of expenditure, until a rough balance is achieved between the two.

The key to these cross-checks is that interviewers should keep a running total of food, income and expenditure as they undertake each interview, so that they can assess progress towards accounting for all sources of food, income and expenditure during the course of the interview.

The timeframe for household economy assessment is always a full 12-month period, so as to fully capture seasonal variations in food, income and expenditure. The year for the current baseline assessment was Mar'07-Feb'08, for both beneficiary and control groups. The 12-month timeframe can create problems in terms of participants accurately recalling, for example, amounts of work obtained at different times of year, or average prices for the year

[4] Because household composition affects food energy needs, an individual target figure was calculated for every household in the current survey and was used to check that household's results.

as a whole. Again, careful probing and cross-checking by the interviewer is the key to obtaining accurate data.

3.2 SELECTION OF HOUSEHOLDS FOR IHEA

For the purposes of sample selection, beneficiary households were divided into two groups those with children under 5 years of age (i.e. with a child that could be included in the nutritional survey) and those with no children under 5.

Because of the focus on nutrition in the current project, all 780 children under 5 (from 620 households) were included in the nutritional survey.

Resources were available to undertake IHEA interviews with a total of approximately 850 beneficiary households, which meant that some households had to be excluded. Table 6 summarises the sampling scheme. Because of the focus on nutrition, it was decided to include ~90% of households with children<5 years in the IHEA assessment, and ~50% of households without under-fives.

Table 6: Sampling Scheme – Beneficiary Villages

Type of Household	Total	% Sampled	No. in Sample
Households with children<5 years	620	~90%	550
Households without children<5 years	580	~50%	300
Total	1,200		850

Within the limits of this scheme, the selection of households to participate in the IHEA assessment was at random.

3.3 STATISTICAL ANALYSIS

One of the principles of statistical analysis is that the sample should be representative of the population from which it has been drawn. The best way of achieving this is to select the sample at random from the whole population. Provided the sample has been selected at random, then statistical analysis allows us to answer two related types of question, a) how reproducible are the results (i.e. if we were to repeat the survey, how confident can we be of obtaining the same result), and b) what is the likelihood that a difference between two sets of results is real, as opposed to having arisen by chance? The sorts of differences we will be looking for in this assessment are differences over time in total cash income, in nutritional status, in expenditure on children, etc.

Even though the sample was 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 tsunami-affected villages. Further discussion of this issue is provided in appendix 6.1.

The second issue with respect to sampling relates to the selection of beneficiaries at household level. Again, this has been purposive. All households with child-related issues thought to be related to poverty have been included as beneficiaries, and a random sample of these has been taken for inclusion in the IHEA survey. The assessment results should therefore be representative of this type of household in tsunami-affected villages.

Two types of analysis are presented in this report. The first compares the beneficiary and control groups to see if they are well matched. Ideally, the two groups should be identical, because the purpose of the control group is to tell us how things would have changed for the beneficiaries if there had been no intervention.

The second type of analysis looks at differences in household economy within the beneficiary group, and at some of the reasons for these. The purpose of this type of analysis is to better describe the sample and to better understand how different types of household might benefit from the intervention. There are two options for this type of analysis. We can look at:

Differences between villages, e.g. differences from one district to another (Batticaloa vs Trinvomalee, for example), or differences between patterns of livelihood (fishing vs semi-urban, for example)

Differences between households within villages. We might, for example, look at differences between male and female-headed households, or at households with a low vs a high dependency ratio.

This is not the ideal dataset for examining differences between districts and livelihood zones. There are two reasons for this:

1) The number of villages included in the sample is relatively small – 21 in total – and sub-dividing the sample further results in a relatively small number of villages in each sub-sample. There are only 3 villages in Trincomalee, for example, 4 villages with an agricultural pattern of livelihood, and so on.
2) There is considerable overlap between district and pattern of livelihood, which makes it difficult to separate these two effects. All the agricultural villages are in Ampara, for example, and the only semi-urban village is in Trincomalee.

Despite these concerns over sample size and the overlap between district and livelihood pattern, these types of differences were investigated, and the results are reported in appendix 6.3.

However, most of this report is devoted to the analysis of differences between households within villages. Households have been grouped in three ways:

By 'Activity' Group. A quick review of the data indicated that most households had one major source of income, either employment, self-employment, own production (e.g. sales of fish or sales of vegetables) or gifts. This latter gift-dependent group is referred to as destitute for the purposes of the current analyses. The purpose of these analyses was to look for differences in food consumption, total cash income and pattern of expenditure to see if there were any economic or other advantages to pursuing one or other type of activity.

By Household Composition. For these analyses, the sample was split between households with and without an adult male (aged 19-59.9 years), and between households with a low and a high dependency ratio. A high dependency ratio is here defined as a ratio of non-adults to adults of greater than 2. The purpose of these analyses was to compare the economic situation of these different types of household and, especially, to investigate the status of female-headed households (i.e. those without an adult male) with low and high dependency ratios.

By Level of Cash Income. Here the sample was split into 4 groups according to the level of cash income (Rs pppm). The objective of these analyses was to see how patterns of expenditure differed from one group to another, and, therefore, how patterns of expenditure might change as income increases. A key question is, how much of any increase in income is likely to go towards expenditure on children?

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. Further details of the statistical analysis are given in appendix 6.1.

4 RESULTS

4.1 BASIC DATA ON BENEFICIARY HOUSEHOLDS

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.

Note: Section 4.1 of the report presents data from all 1,194 beneficiary households, not just from the 858 beneficiary households included in the IHEA survey.

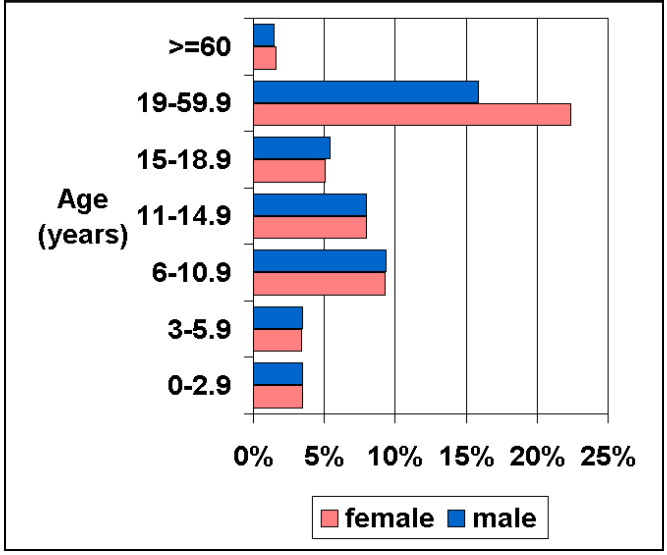
4.1.1 Household Composition, by Age and Gender

There are 6,424 individual beneficiaries in the 1,194 beneficiary households. A breakdown of these individuals, by age and gender is given in Figure 2.

59% of beneficiaries are children (i.e. aged <19 years). This is a relatively high percentage, reflecting the fact that households without children are not eligible for the project.

There are considerably more adult females than adult males in the sample. This reflects the relatively high proportion of female-headed households in the sample (14% of households have no adult male).

Figure 2: Household Composition, by Age & Gender



4.1.2 Children's Issues Faced by Beneficiary Households

Among beneficiary households, educational problems are the most common issue faced, followed by malnutrition and then child protection (Table 7). Many households face more than one issue and a minority (2%) face all three issues.

Table 7: % HHs with Different Issues	
Education	69%
Malnutrition	38%
Child Protection	22%
Total	129%
% HHs with 1, 2 or 3 Issues	
% with 1 issue	**73%**
Education	44%
Malnutrition	22%
Child Protection	7%
% with 2 issues	**25%**
Education & Malnutrition	13%
Education & Child Protection	10%
Malnutrition & Child Protection	2%
% with All 3 Issues	**2%**

4.1.2.1 Education Issues:

69% of households and 40% of individual children aged 3-18.9 years have an educational problem. The percentage of children with a problem, and the type of problem, varies by age (Figure 3 & Figure 4). Relatively few pre-schoolers (aged 3-5.9) face a problem, with irregular attendance and failure to enrol the most significant issues. Irregular attendance is the most significant problem in the basic school years (ages 6-14.9, see Table 8), while seasonal or permanent dropping out of school are the most significant problems at ages 15-18.9. Presumably, what we are seeing here is a logical sequence; a failure to enrol initially, then irregular attendance in the middle school years, culminating in seasonal and then total dropping out of school as children grow older.

Table 8: Age range and Type of Schooling	
3-5.9	pre-school
6-14.9	basic
15-18.9	secondary

Figure 3: %Children with Educational Issue, by Age

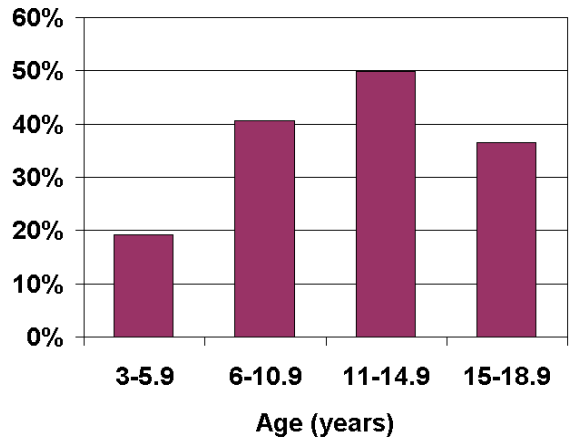
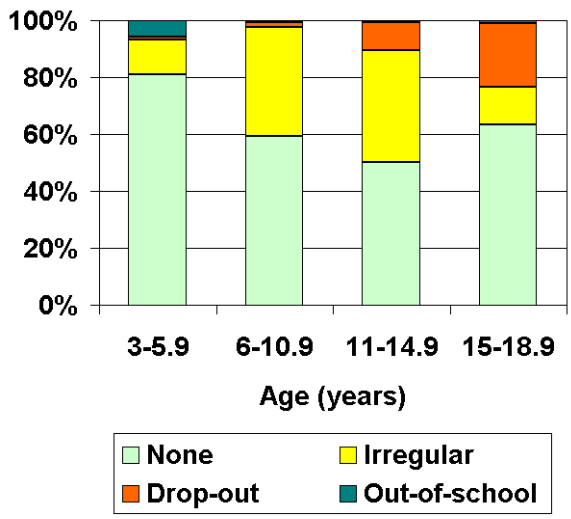


Figure 4: Type of Educational Issue, by Age



There are no significant differences between boys and girls in terms of educational issues faced.

4.1.2.2 Malnutrition Issues

38% of beneficiary households have one or more children with a problem of growth faltering. At an individual level, 62% of all children aged 0.5-4.9 years have been identified as having a malnutrition problem. This does not mean that malnutrition is not a problem for older children, only that growth is not monitored regularly in older children. Slightly more girls than boys have a problem of growth faltering (66% of girls aged 0.5-4.9 years vs. 58% of boys).

4.1.2.3 Child Protection Issues

22% of households and 10% of individual beneficiary children aged 0-18.9 years have a child protection issue. The percentage of children with difference types of problem is summarised in Table 9.

Table 9: % Children Aged 0-18.9 Years Facing Different Types of Protection Issue

Neglect	4%
Working	2%
Separation	3%
Abuse	1%
Total	10%

Child protection issues become progressively more important with increasing age (Figure 5). At younger ages, neglect and separation are the most significant problems, with child abuse and child labour becoming progressively more important with increasing age (Figure 6). Child labour is the most significant issue among children aged 15-18.9 and almost certainly accounts for a significant proportion of the school-dropouts reported in the previous section. It is worth noting that in Sri Lanka child labour is not illegal above the age of 14 years. In other words, only a relatively small proportion of beneficiary children are working illegally.

Figure 5: %Children with Child Protection Issue, by Age

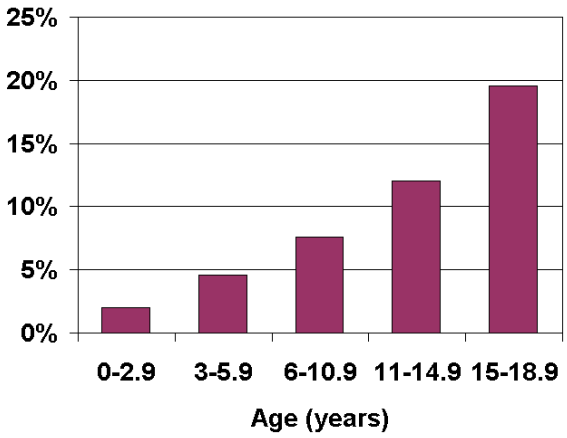
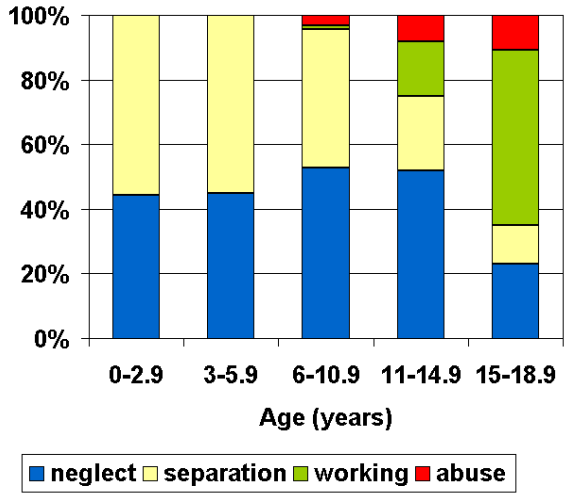
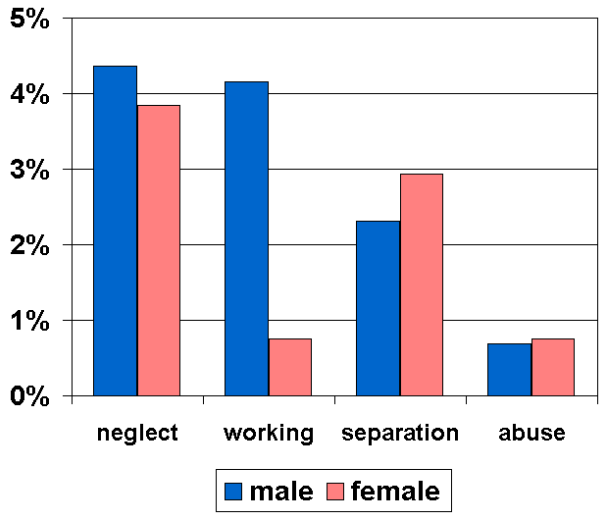


Figure 6: Child Protection Issues - By Age



There are significant differences between boys and girls in terms of child protection. Very many more boys are working than girls (Figure 7). The percentage of girls and boys facing other child protection issues is similar.

Figure 7: Child Protection Issues - By Gender



4.2 IHEA DATA: COMPARISON OF BENEFICIARY & CONTROL GROUPS

4.2.1 Basic Data

Basic data on the beneficiary and control groups are summarised in Table 10. The two groups appear to be well-matched, i.e. there are no significant differences for various major parameters including total food consumption, total cash income (pppm), level of debt at the end of the baseline year, etc. The only significant difference in Table 10 is for the number of hens owned - one of the less important variables assessed.

Table 10: Basic Data for Beneficiary & Control Groups

	Beneficiary	Control	Stat. Sig.
Sample size	858	305	
Household Size	5.6	5.3	ns
Asset Holdings			
%HHs owning rainfed land	1.4%	0.3%	ns
%HHs owning a bike	50%	38%	ns
No. Hens per HH	1.5	0.5	p<.001
No. Coconut trees per HH	1.6	1.1	ns
Gold owned, grams per HH	5.3	6.3	ns
Food Consumption			
%2100 kcals per person per day	86%	87%	ns
Income, Expenditure & Debt			
Cash Income, Rs pppm	1718	1650	ns
Expenditure as a % income	103%	100%	ns
Debt at and of year, Rs per HH	12,460	10,760	ns
%HHs below national poverty line[1]	92%	94%	ns
Average cash transfer	668	-	-
Cash Income with cash transfer[2]	2386	-	-
%HHs below poverty line, after cash transfer[2]	60%	-	-

[1]Based upon a poverty line of Rs 2,445 for the reference year
[2]Assuming no change in other sources of cash income

Total expenditure averaged 103% and 100% of total income for the beneficiary and control groups respectively. For the beneficiary group, the vast majority of results (95%) fell within the range 95%-115%. In other words, there was generally an excellent level of agreement between the results for income and expenditure – an important measure of data quality in a household economy assessment.

4.2.2 Potential Impact of Unconditional Cash Transfers

Table 10 also compares the percentage of households below the national poverty line in the beneficiary and control samples (92% and 94% respectively). The results of an analysis of the possible effects of the cash transfers are also summarised. This indicates that the average transfer of 668 Rs pppm would increase average cash income from 1718 Rs to 2386 Rs pppm and reduce the percentage of households below the national poverty line from 92% to 60%. More detail on these results is given below.

Figure 8 shows, for the beneficiary group, the number of households with different levels of cash income in the baseline year. From this analysis it can be seen that 92% of beneficiary households fell below the poverty line of 2,445 Rs pppm (per person per month) in the reference year.

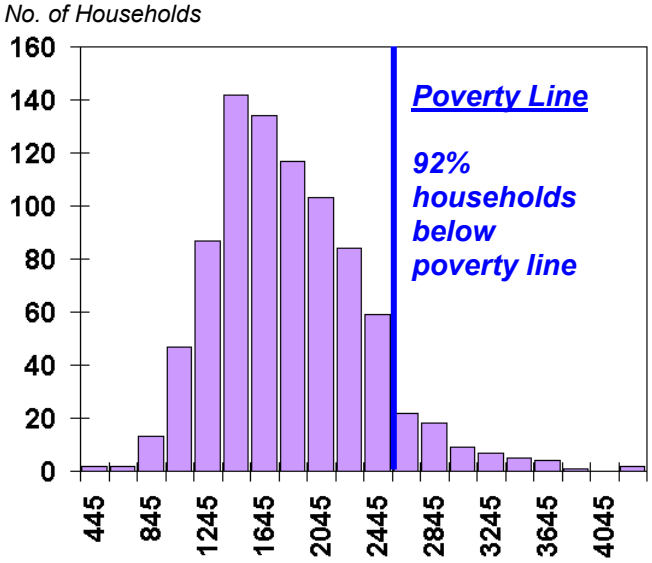
The level of cash transfer will vary according to household size (Table 1), but for a household size of 6 will be Rs 4,000 per month, or Rs 667 Rs pppm. This is almost identical to the average transfer of Rs 668 pppm, calculated individually for each household.

The possible effect of the cash transfers on cash income is shown in part (B) of Figure 8, assuming no change in any other source of cash income. This shows that the transfer of Rs 668 pppm would reduce the percentage of households below the poverty line from 92% to 60%.

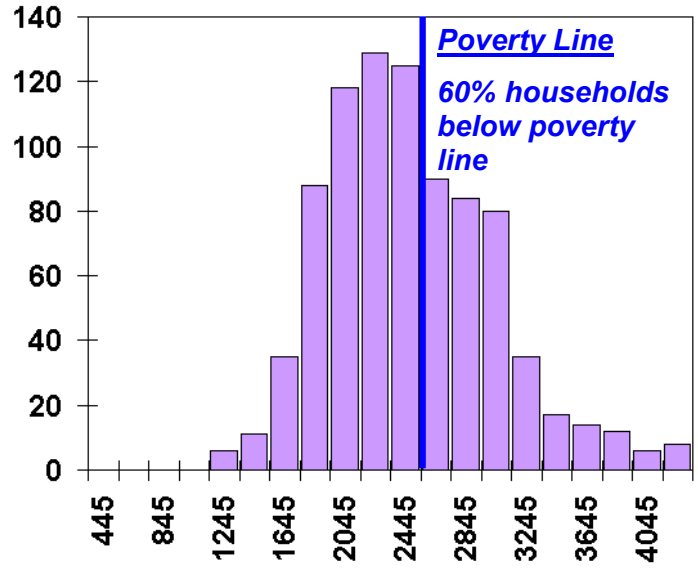
Clearly, this represents a very significant improvement, but it is also clear that a significant percentage of households (60%) will remain below the poverty line, even with the cash transfers.

Figure 8: Cash Income of Beneficiary Households compared to the National Poverty Line

A: Baseline Year – Without Cash Transfers



B: Baseline Year – With Cash Transfers (Assuming no change in other income sources)



The main reason for this is that the proposed level of transfer is too small to lift ***all*** households out of poverty. A second possible reason is the reduction in the value of the transfer ***per person*** with increasing household size (Table 1). This would appear to reduce the chances of larger households achieving an income above the poverty line. This is especially the case, given that larger households tend to have a lower cash income per person anyway (Figure 9)

Figure 9 shows average cash income per person per month according to household size. Larger households have a lower cash income per person on average, presumably because they have more dependants and relatively fewer income-earners. They will also receive a lower cash transfer ***per person***, reducing the chance that they will achieve a cash income above the poverty line.

Figure 9: Total Cash Income & Value of the Transfer, by Household Size

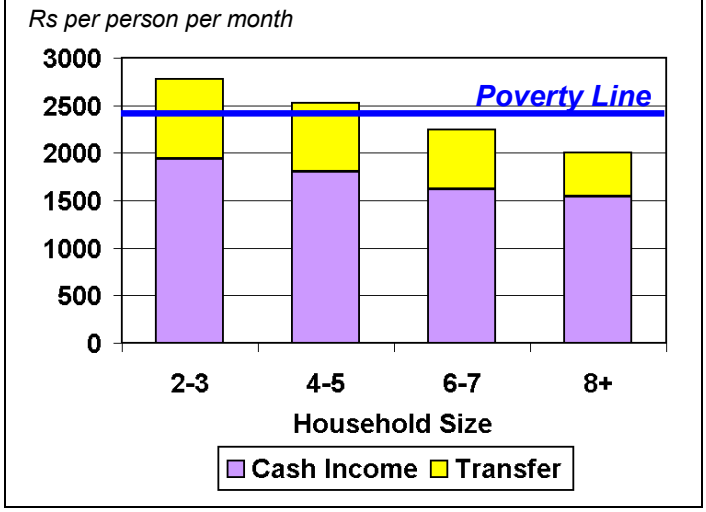


Table 11: %Households with Different Household Sizes

Household Size	%Households
2-3	10%
4-5	43%
6-7	33%
8+	14%

The implication of these results is that the cash transfer should be increased for larger household sizes, to increase their chances of reaching the poverty line. However, the analysis presented in Table 12 indicates that this would not be a particularly effective strategy. Table 12 compares the effect of targeted increases for larger households verses across-the-board increases in transfers to all households that would increase the total project cost by the same amount. The conclusion is that targeting higher transfers to larger households has only a marginal effect on the percentage of households falling below the poverty line. This is mainly a reflection of the fact that – despite the findings from - household size is a relatively poor predictor of total income and- therefore – a relatively poor predictor of the need for a larger transfer.

Table 12: Effects of Changing the Level of Transfer

Modification to the Scheme	%Households below the Poverty Line	%Increase in Cost of Transfers
1) Existing Scheme	60%	0%
2) Increasing the transfer to 750 Rs pppm for household size 6 or more	54%	12%
3) Increasing the transfer for all households by 14%	55%	12%
4) Increasing the transfer to 850 Rs pppm for household size 6 or more	51%	19%
5) Increasing the transfer for all households by 25%	51%	19%

Table 12 also shows the effect of increasing the value of the transfers on the % of households falling below the poverty line. In general terms, a 20% increase in the value of transfers will reduce the % of households below the poverty line from 60% to 50%.

A careful reading of the objectives set out in Box 1 indicates that the above findings are in line with the expectations of the project. These objectives refer to half of targeted households earning an income above the national poverty line, and half of households (with an income below the national poverty line) at least being able to fulfil their basic needs.

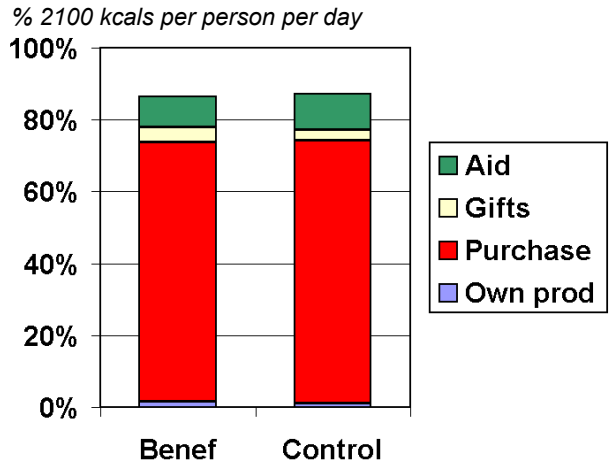
Note: The above analysis does not take into account the possible effects of the proposed IGAs on total cash income. It considers only the effects of the cash transfers in year 1 of the project.

4.2.3 Food Consumption

There are no significant differences in total food energy intake between the beneficiary and control groups (Figure 10). For the beneficiary group, total food energy intake averaged 1,810 kcals pppd, or 86% of the nominal minimum requirement of 2,100 kcals pppd. This result is slightly misleading because minimum food energy needs vary according to household composition. Adjusting the minimum requirement for household composition and repeating the calculations indicates that 1,810 kcals pppd represents 90% of the revised requirement. This is a very reasonable figure for a very poor population such as this.

There is also little difference between the beneficiary and control groups in the amount of food energy obtained from different sources (Figure 10). The only statistically significant difference is in the amount of food from school feeding, which is slightly higher for the control than the beneficiary group.

Figure 10: Food Consumption, by Source, Beneficiary & Control Groups



Stat. Sig. Differences
(School feeding p<0.01)

Notes: 1) Only differences that are statistically significant are given in the table below each figure. Any other differences between groups are not statistically significant.

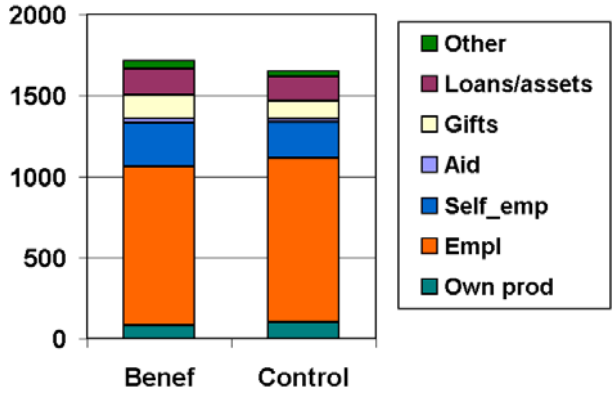
2) Items in brackets refer to a sub-division of one of the major categories included in the graph. In this case, for example, there is a significant difference in the %kcals from school feeding, a sub-division of the aid category in the graph.

For both groups, purchase (which includes a small amount of payment in kind) is the major source of food, followed by aid and then gifts from within the community. For the beneficiary group, aid provides 8% of minimum food needs. 60% of this (about 5% of minimum food needs) comes in the form of Samurdhi, the balance as school feeding. 94% of beneficiary households receive one or other type of food aid (84% Samurdhi, 62% school-feeding).

4.2.4 Cash Income

There are no significant differences between the beneficiary and control groups in either total cash income or the amount of income from different sources (Figure 11). The most significant sources of cash income are employment and self-employment. More details of the different types of activity undertaken is given in section 4.3.2. On average, very little aid was received in the form of cash, from either government or NGO sources (an average of 25 Rs pppm for the beneficiary group). Only 20% of households received any aid in the form of cash.

Figure 11: Cash Income, by Source, Beneficiary & Control Groups



Stat. Sig. differences
None

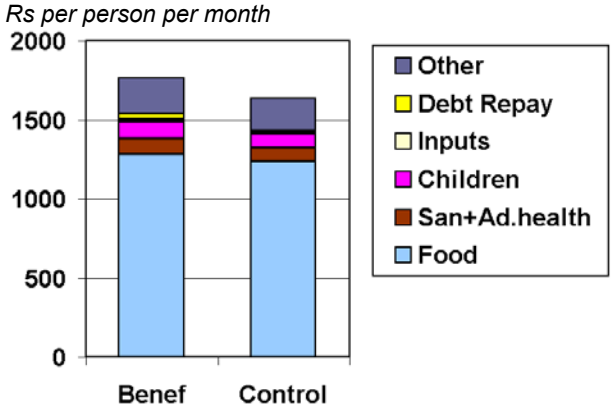
Loans, pawning and sale of assets are important sources of cash income. Beneficiary households report an average level of debt at the end of the baseline year of Rs 12,461 per household, equivalent on average to 11% of annual cash income. This modest level of average debt masks significant differences between households. 38% of beneficiary households report no debt at all, presumably because they are not considered credit-worthy by local money-lenders. On the other hand, 5% of beneficiary households have Rs 50,000 of debt or more, equivalent to roughly 50% of annual cash income.

4.2.5 Expenditure

There are no statistically significant differences between the beneficiary and control groups in either total expenditure or the pattern of expenditure on different items (Figure 12).

The very high proportion of expenditure on food is striking (3/4 of expenditure by beneficiary households, Figure 12). A more detailed breakdown of food expenditure is given in Figure 13. Only about 1/3 of food expenditure goes towards staple food purchase (i.e. rice, wheat flour and bread), with 2/3 going towards non-staple foods including animal products (fish and meat mainly, but some milk and eggs), vegetables, sugar, oil and pulses.

Figure 12: Expenditure, by Type, Beneficiary & Control Groups



Stat. Sig. differences
None

Almost as much is spent on animal products and vegetables as is spent on staple, despite the fact that the former provide only 1/10 as many kcals. If they chose to, therefore, beneficiary households could increase their total food intake by 10% (bringing it up to 100% of their adjusted minimum food energy requirements[5]) by switching just 25% of their total

[5] The adjustment is for household composition, and is described in section 4.2.3.

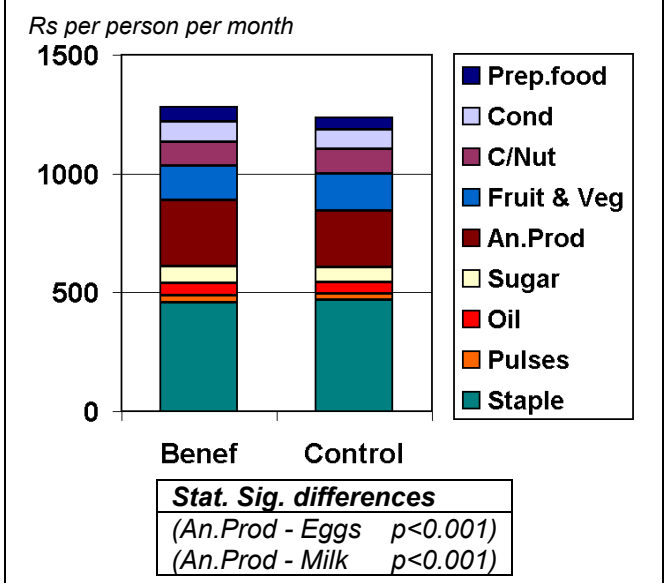
expenditure on animal products and vegetables from these items to staple food. In other words, poor Sri Lankan households prioritise dietary quality over quantity.

Relatively small amounts are spent on sanitation and adult health (San_Ad.health in Figure 12) and on children, with the balance of expenditure on debt repayments and 'other'.

Expenditure on children (excluding children's food) amounted to Rs 180 or US$1.60 per child per month, and accounted for not more than 6% of total household expenditure in the baseline year. This includes expenditure on:

- Child health: medicine for children
- Education: fees, books & stationary, uniforms, shoes and transport
- Clothes for children

Figure 13: Expenditure on Food, by Type, Beneficiary & Control Groups



In theory, schooling is free and there are no fees. However, it is common for teachers to give extra classes for which fees are charged. If the children of the poor don't pay these additional fees, they may be discouraged from attending school generally.

4.3 IHEA DATA: ANALYSIS BY 'ACTIVITY' GROUP

For this analysis the sample has been divided into groups, according to the main source of cash income at household level. Four groups have been identified; the employed, the self-employed, the producers and the destitute (i.e. those depending mainly upon gifts). Data on the household size and asset holdings of these groups are given in Table 13.

Table 13: Household Size & Asset Holdings, by 'Activity' Group

'Activity' Group	Employed	Self-Employed	Producers	Destitute	Stat. Sig.
Sample size	572	121	30	135	
%households	67%	14%	3%	16%	
Household Size	5.8	5.1	5.6	5.0	p<0.01
%HHs owning rainfed land	1.6%	1.7%	3.3%	0%	p<0.001

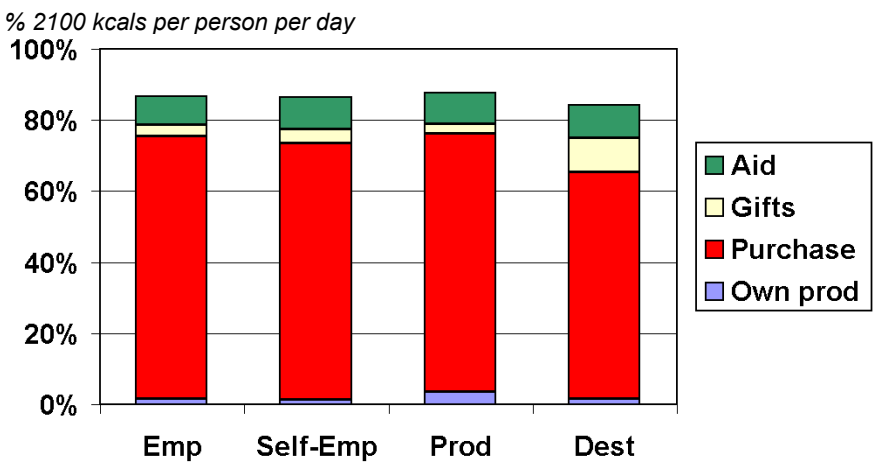
The majority (2/3) of beneficiary households are casual labourers. About 1 in 6 is self-employed and 1 in 6 is destitute. Only very few households (3%) have production as their main source of cash income.

In Table 13 (and other similar tables in this report), data on asset holdings are only presented where there is a statistically significant difference in holding between the groups. The only difference by 'activity' group is in terms of land ownership. This is very low for all groups, but is highest for producers and lowest for the destitute.

4.3.1 Food Consumption

There are no significant differences in total food consumption between the four groups (Figure 14). Differences in source of food are a reflection of the way the groups have been formed, with more production in the case of producers, and more gifts in the case of the destitute. However, even for the producers, the amount of food produced directly for consumption is very low.

Figure 14: Food Consumption, by Source, By 'Activity' Group



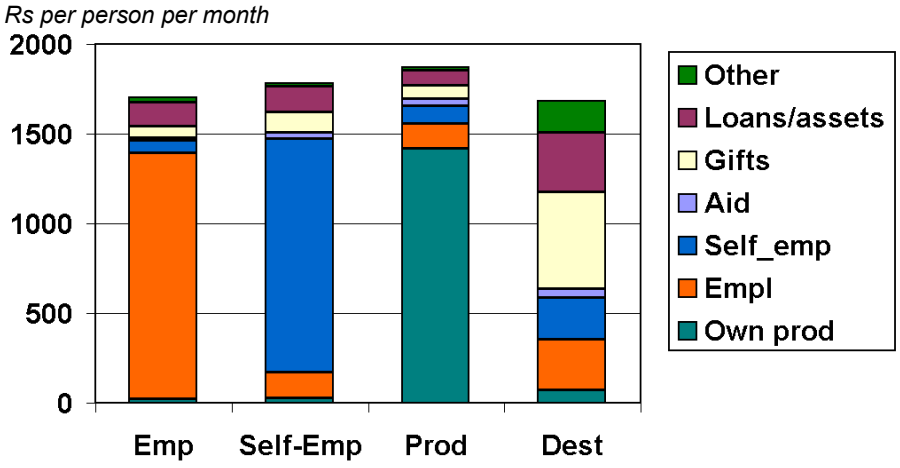
Stat. Sig. differences

Total food consumption – not sig.
Differences by source not relevant - Groups have been formed based upon their pattern of food & income generation

4.3.2 Cash Income

Figure 15 shows that most beneficiary households (84%, i.e. all except the destitute) derive 70% or more of their income from one source.

Figure 15: Cash Income, by Source, By 'Activity' Group



Stat. Sig. differences

Total cash income – not sig.
Differences by source not relevant - Groups have been formed based upon their pattern of food & income generation

The main types of **labour** undertaken are:

Fishing labour: This is mainly work for men, and includes labour on boats and hauling in fishing nets on the beach (beach seine). The payment is usually in cash, but may include some payment in kind (fish), depending upon the level of the catch.

Construction: Male casual labourers could earn 600-700 Rs per day in the construction sector in the baseline year. Work is available for women, but women are paid only 30%-50% of the rate for men, often for the same type of work and the same length of working day.

Agricultural labour: Includes land preparation, weeding, harvesting, etc. Daily labour rates are similar to those in the construction sector, with the same differences between men and women.

Other casual labour: For men, this includes fence mending, cutting trees, clearing compounds, etc. For women, this includes domestic labour, the lowest paid of all forms of labour.

Self-employment includes, for men, firewood collection (in the dry season), wild food collection (honey – in the dry season, fruits, vegetables and green leaves, some of which are seasonal), fish/vegetable vending (typically from the back of a bicycle) and small-scale shop-keeping. For women, self-employment includes activities such as food preparation (hoppers, string hoppers, snacks) and petty trade (small shops or stands selling vegetables, firewood, etc.).

Own Production includes fishing (where ownership of a canoe or some nets, or a share in a canoe or a boat qualifies the owner for a share of the catch), poultry keeping and vegetable production.

For the **destitute**, the main sources of cash income are, **gifts, loans, sales of assets** and **other**. At first sight it may appear odd that households with few other sources of income rely so heavily upon loans and asset sales. However, in reality most of the income coded for this group as a loan or an asset sale or as 'other' is in fact a gift. Many of the loans are from relatives or friends and remain unpaid. Assets that are sold (especially gold) are also generally gifts from relatives for this group, and most of the 'other' income is also a gift of one type or another.

Pawning, mainly of gold is a common form of loan. Gold may be pawned to government or private banks, to informal moneylenders or to jewellery shops. At the time of writing, 1g of gold costs approximately Rs 3,500 to purchase, and can be pawned for up to Rs 2,500 per g. The interest rate charged by banks is 18% per year, and by moneylenders from 25%-35% per year.

Goods can also be obtained on **credit** from local shops. These loans have to be repaid after 2-3 months. No interest is charged, but the price paid will be higher than if the purchase was made in cash. In the case of sugar, for example, the price paid in cash might be Rs 60-65 per kg, but Rs 75-80 if bought on credit.

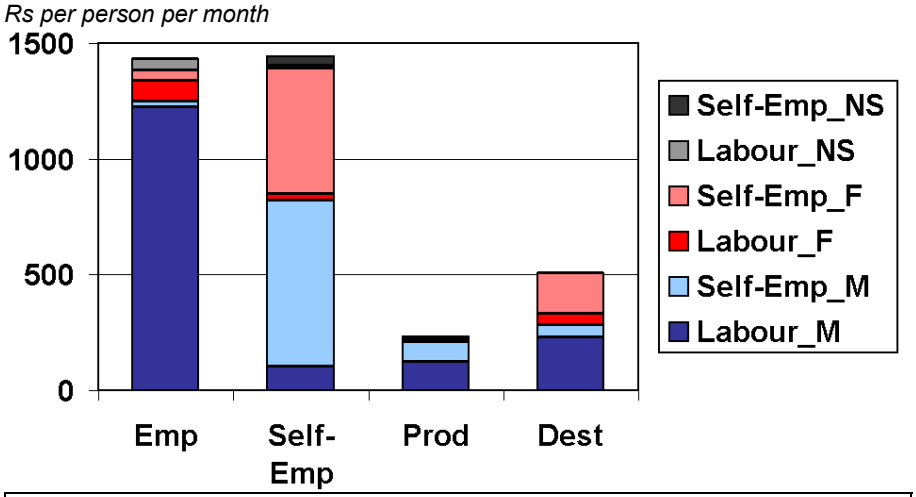
Other income includes items such as pension and divorce payments, support from religious institutions, remittances, and cash gifts from relatives that were not coded as gifts.

4.3.3 Cash Income from Labour & Self-Employment, by Gender

Figure 16 presents a breakdown of cash income from labour and self-employment, by gender.

Overall, women earn very little income from labour. This is a function of a lack of opportunities, linked to the fact that most women are tied by family responsibilities to the home, and the very low rates of pay for female labour.

Figure 16: Cash Income from Labour & Self Employment, By 'Activity' Group and Gender



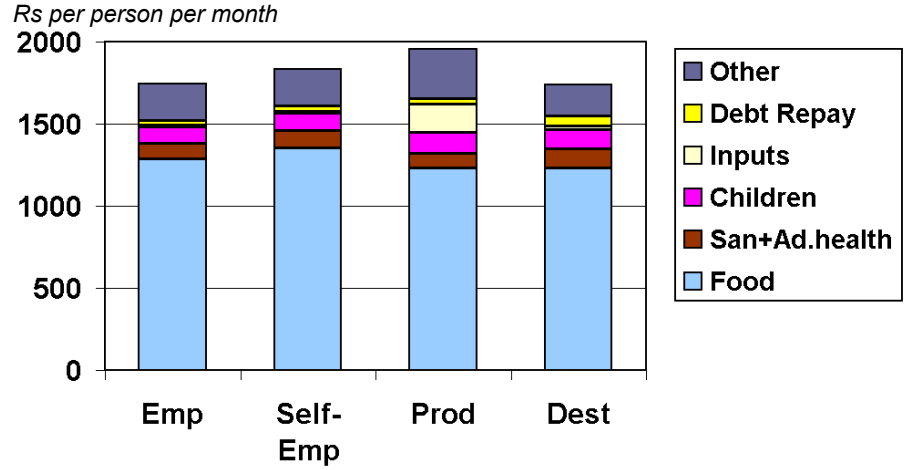
Stat. Sig. differences
Not relevant - Groups have been formed based upon their pattern of income generation

Women are much more active in terms of self-employment (e.g. food preparation and petty trade) mainly because these are activities that can be pursued from home.

4.3.4 Expenditure

There are relatively few differences in the pattern of expenditure from one activity 'group' to another (Figure 17). As expected, expenditure on inputs is higher for 'producers' than for other groups. Expenditure on staple foods is lowest for the destitute group, given their higher dependence on gifts and lower dependence on the market.

Figure 17: Expenditure, by Type, By 'Activity' Group



Stat. Sig. differences	
Inputs	*p<0.001*
(staple food	*p<0.001)*
(sugar	*p<0.01)*
(education	*p<0.001)*

There are no differences in total expenditure on children between the groups, although there are significant differences in expenditure on education, which is lowest for the employed and highest for producers. It is not clear why this should be.

4.4 IHEA DATA: ANALYSIS BY HOUSEHOLD COMPOSITION

For these analyses, four groups have been formed, based upon the presence/absence of an adult male (aged 19-59.9) in the household, and based upon the ratio of dependents to adults (with a ratio of greater than 2 being defined as a high dependency ratio).

Defining households on the basis of the presence/absence of an adult male in the household is not the same as determining whether the household is female-headed. All households without an adult male are, of course, female-headed, but so are a proportion of households with an adult male. Female-headed households with males aged 19-59.9 will include households headed by a widowed mother but with a married or unmarried son who remains part of the household, and some households where the husband is handicapped.

Table 14: Household Size & Asset Holdings, by Household Composition

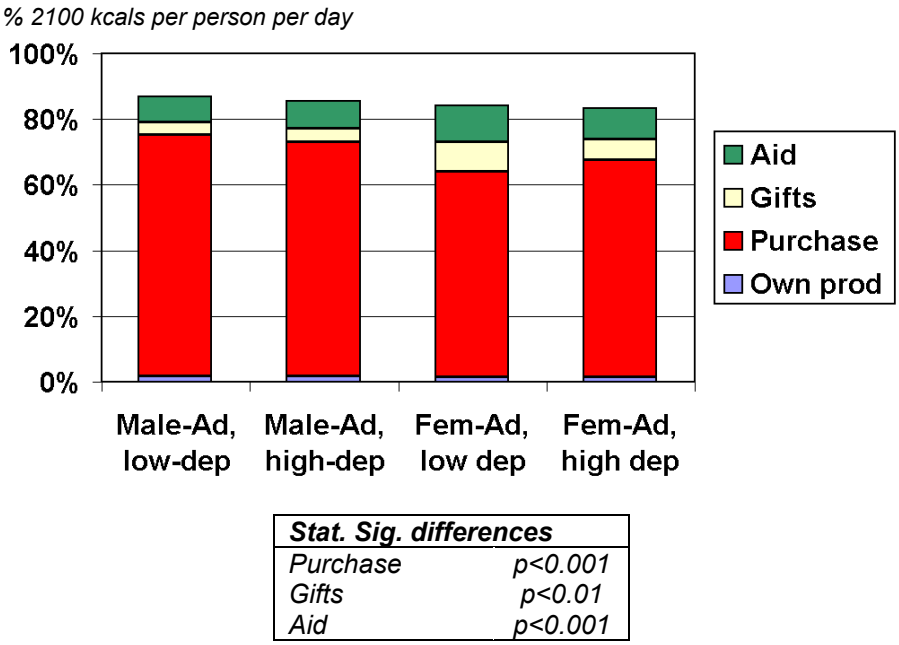
Group	Male Adult Low dep	Male Adult High dep	Fem. Adult Low dep	Fem. Adult High dep	Stat. Sig.
Sample size	654	86	75	43	
%households	76%	10%	9%	5%	
Household Size	5.6	7.5	3.9	4.7	p<0.001
%HHs owning rainfed land	1.7%	1.2%	0%	0%	p<0.001
%HHs owning bicycles	55%	52%	23%	21%	p<0.001
Debt at and of year, Rs per HH	12,640	16,580	8,040	9,300	p<0.01

The majority (76%) of households are male-adult and low dependency (Table 14). 14% are female-adult and about 1/3 of these also have a high dependency ratio. None of the female-adult households own land, and far fewer own bicycles than male-adult households. Interestingly, levels of debt are lower for female-adult households, presumably either because they are more cautious about taking loans, or they are considered less credit-worthy than male-adult households.

4.4.1 Food Consumption

There is no significant difference between groups in total food consumption (Figure 18). Female-adult households receive more gifts and slightly more aid than male-headed households. This larger amount of aid ***per person*** may perhaps be explained by the smaller household size of female-adult

Figure 18: Food Consumption, by Source, By Household Composition

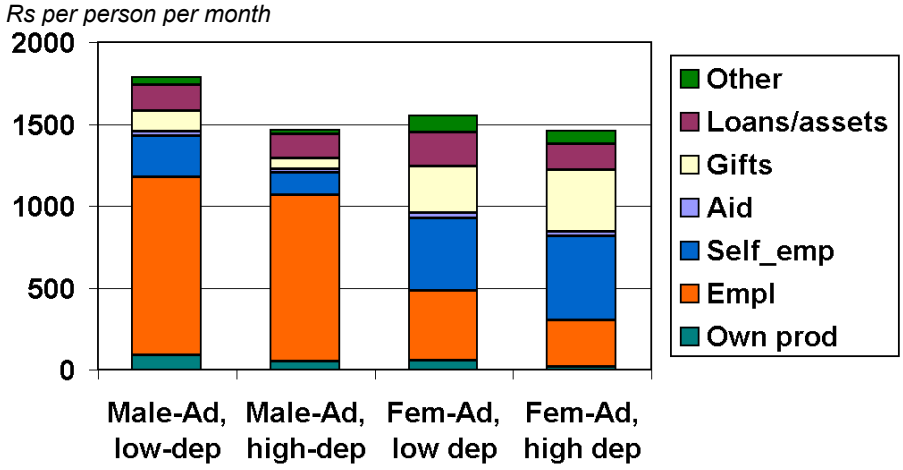


households, rather than by preferential targeting of assistance towards these households.

4.4.2 Cash Income

Not surprisingly, the highest cash incomes ***per person*** are earned by male-adult households with fewer dependants. Employment is the single most important source of cash income for male-adult households (Figure 19).

Figure 19: Cash Income, by Source, By Household Composition



Stat. Sig. differences			
Total cash income	*p<0.001*	*Aid*	*p<0.01*
Employment	*p<0.001*	*Gifts*	*p<0.001*
Self-employment	*p<0.001*	*Other*	*p<0.001*

The most striking difference between male- and female-adult households is the dependence of female-adult households on gifts and self-employment. Most female-adult households fall into two of the 'activity' groups, the self-employed and the destitute. This is most marked in the case of female-adult households with a high dependency ratio. About half of these households depend upon self-employment, and about half depend upon gifts (Table 15).

Table 15: Main Source of Income by Household Composition

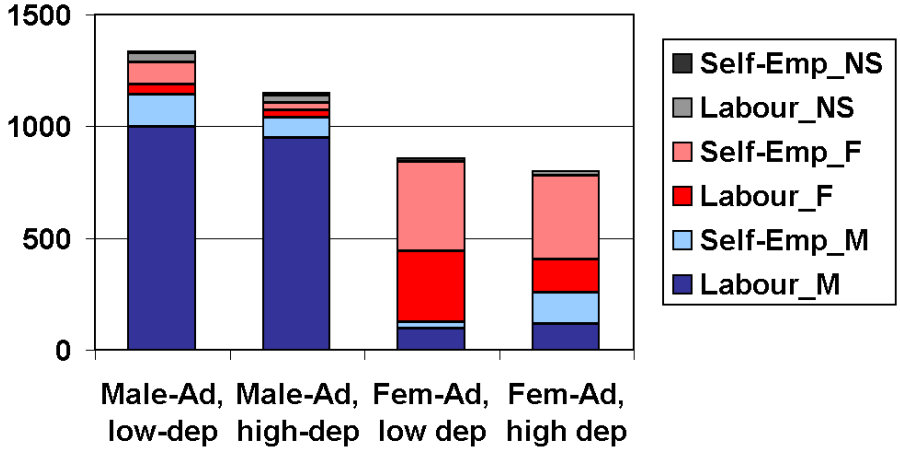
%Households with different main sources of income	Male Adult Low dep	Male Adult High dep	Fem. Adult Low dep	Fem. Adult High dep
Employment	73%	80%	31%	14%
Self-Employment	12%	7%	27%	**42%**
Production	4%	3%	0%	0%
Destitute	11%	9%	**43%**	**44%**
total	100%	100%	100%	100%

It is also significant that no female-adult households have 'production' as their main source of cash income. This may be due to factors such as lack of capital and lack of support from extension services.

4.4.3 Cash Income from Labour & Self-Employment, by Gender

The results of this analysis are presented in Figure 20. Not surprisingly, women are the most important income-earners for female-adult households. This is in contrast to the situation in male-adult households, where women's share of total income is relatively small.

Figure 20: Cash Income from Labour & Self Employment, By Household Composition and Gender



Stat. Sig. differences			
Labour_Male	*p<0.001*	*Labour_Female*	*p<0.001*
Self-emp_Male	*p<0.01*	*Self-emp_Female*	*p<0.001*

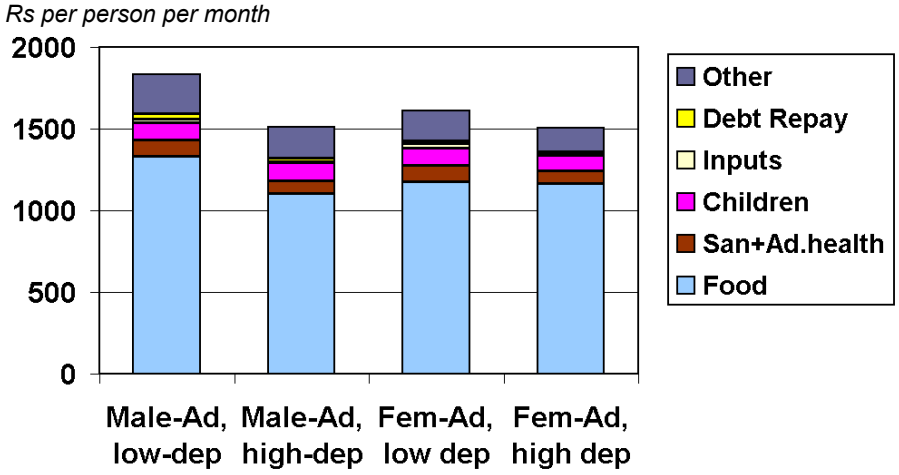
Income earned by males in female-adult households is earned either by children or by elderly men (aged 60 or more). Not surprisingly, it is female-headed households with a high dependency ratio that are most dependant upon child labour.

4.4.4 Expenditure

The most striking difference in expenditure between these groups is in the amount spent on food (Figure 21). Male-adult households spend significantly more on animal products ($p<0.01$) and on fruit and vegetables ($p<001$) than other groups.

There are no significant differences in the level of expenditure on children.

Figure 21: Expenditure, by Type, By Household Composition



Stat. Sig. differences			
Total expenditure	*p<0.001*	*San+Ad.health*	*p<0.01*
Food	*p<0.001*	*Other*	*p<0.001*

4.5 IHEA DATA, ANALYSIS BY LEVEL OF CASH INCOME

For these analyses, the beneficiary sample has been divided into 4 roughly equally sized groups, based upon the level of cash income per person (Table 16). In relation to assets, ownership of bicycles and of gold increases significantly with increasing income.

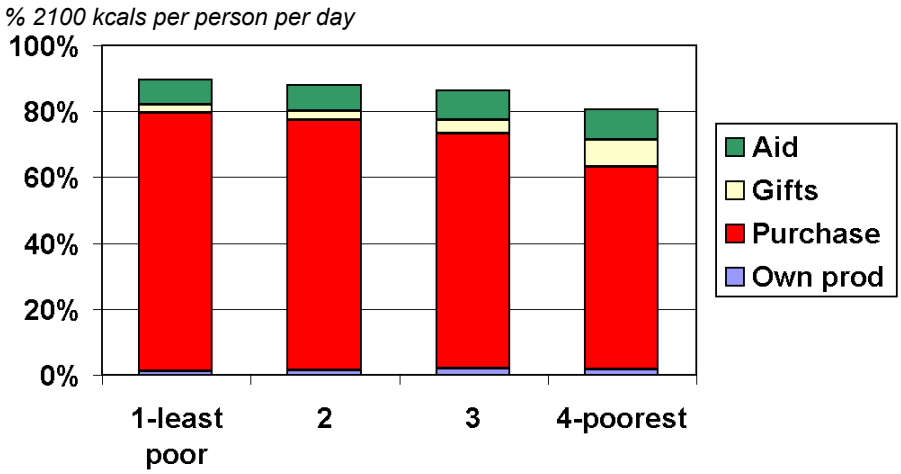
Table 16: Household Size & Asset Holdings, by Level of Cash Income

Group Cash Income (pppm)	1-Least Poor >2100	2 1701-2100	3 1301-1700	4-Poorest <=1300	Stat. Sig.
Sample size	201	215	265	177	
%households	23%	25%	31%	21%	
Household Size	4.9	5.4	5.8	6.1	p<0.001
%HHs owning bicycles	61%	55%	47%	37%	p<0.001
Gold owned, grams per HH	8.0	6.3	5.8	5.9	p<0.001

4.5.1 Food Consumption

Total food consumption declines as income falls (Figure 22). This is because of lower amounts of food purchase, not entirely compensated by higher amounts of gifts.

Figure 22: Food Consumption, by Source & Level of Cash Income



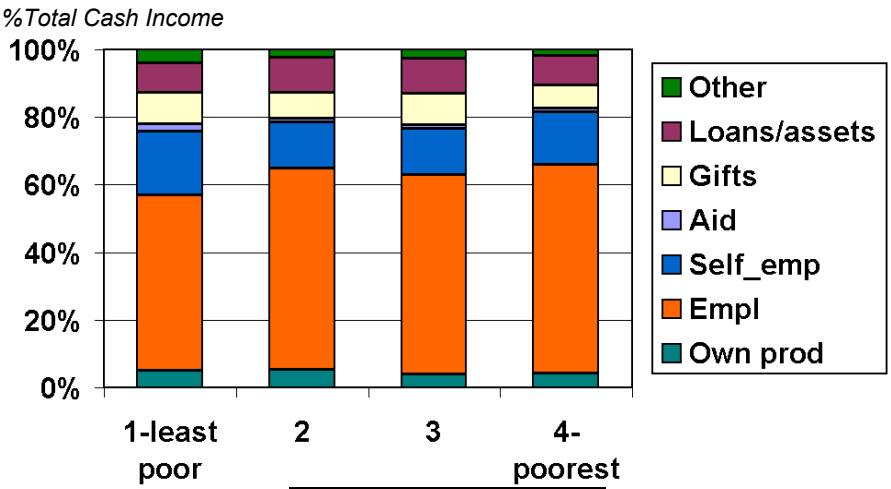
Stat. Sig. differences	
Total food consumption	*p<0.001*
Purchase	*p<0.001*
Gifts	*p<0.001*
(School feeding	*p<0.001)*

The poorest households receive slightly more food in the form of school-feeding than the least poor (6% of kcals vs 4% respectively). This may be due to the larger household size of the poorest households, and possibly therefore a large number of children in school.

4.5.2 Cash Income

The difference in average cash income between the poorest and the least poor group is more than twofold, Rs 1,100 pppm for the poorest vs Rs 2,480 for the least poor. There are no significant differences in income source by level of cash income (Figure 23).

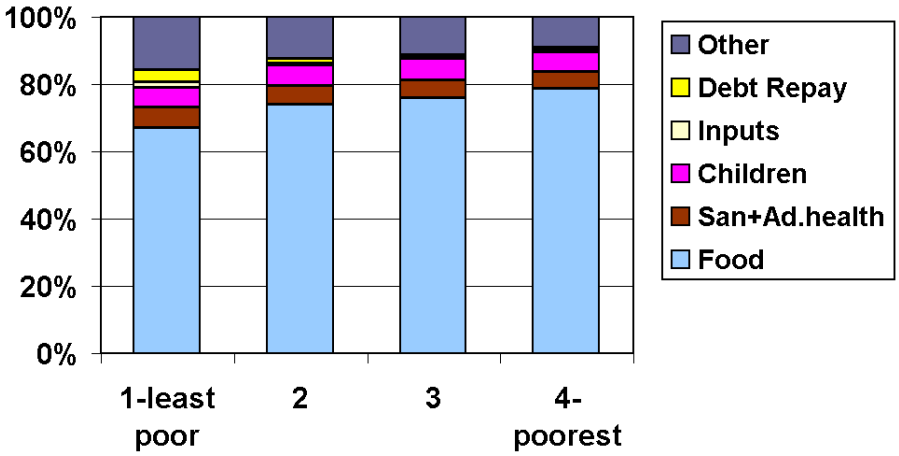
Figure 23: % Total Cash Income, by Source & Level of Cash Income



Stat. Sig. differences
None

4.5.3 Expenditure

Figure 24: % Total Expenditure, by Type of Expenditure & Level of Cash Income



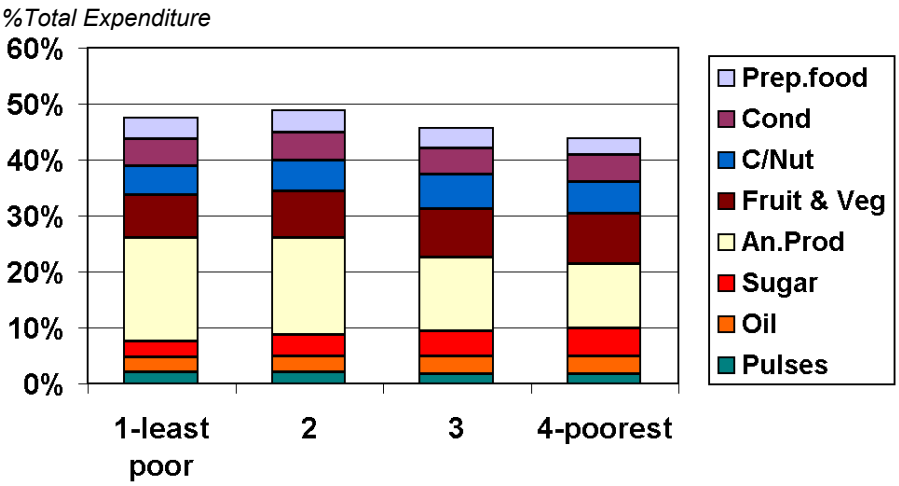
Stat. Sig. differences			
Food	p<0.001	Debt Repayment	p<0.001
(Staple food	p<0.001)	Other	p<0.001

Absolute expenditure increases for every category of item as income increases. What is perhaps of more interest is how the pattern of expenditure changes with income, i.e. the **proportion** of income spent on different items as income increases. These proportional changes in expenditure are shown in Figure 24 and Figure 25. The biggest change is in expenditure on food. As income increases, so the proportion spent on staple, on sugar and on coconuts decreases, while the proportion spent on pulses and animal products increases. The finding that the poorest spend a higher proportion of their income on sugar is not unexpected, since sugar is generally a relatively cheap source of kcals.

The only other differences are in the proportion spent on debt repayment and on other items, both of which increase with increasing income.

There is no evidence that expenditure on children is prioritised over other types of expenditure as income increases (Figure 24).

Figure 25: %Total Expenditure on Non-Staple Foods, by Level of Cash Income



Stat. Sig. Differences			
Pulses	*p<0.001*	*Animal Products*	*p<0.001*
Sugar	*p<0.001*	*Coconut*	*p<0.001*

4.6 SEASONAL VARIATIONS IN PATTERNS OF LIVELIHOOD

The main rains for the north-east coast are those of the north-east monsoon from Oct-Feb. The rains are the low season for many of the income generating activities pursued by the poor, including fishing and construction labour (Figure 26). With the decline in income from fishing and labour, there will also be a decline in the demand for the goods and services provided by the self-employed, resulting in a decline in incomes across the board for poorer households. As a consequence, the rains are generally a period of shortage and hunger for the poor. With reduced income from labour and self-employment, poor households become more dependant upon loans, asset sales and community assistance at this time of year. Disease prevalence is also highest during the rains.

For the purposes of the IHEA analysis, the 'consumption' year was taken as starting in March. This marks the end of the lean season, and the start of a new round of income generating activity.

Figure 26: Seasonal Calendar

Activity	*District*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*
Rainfall									A	P	P	P	A
Fishing: Beach Seine, Cast Net & Canoe	T&B	A	A	A	P	P	P	P	P	L	L	L	A
Fishing: Beach Seine & Deep Sea	A	P	A	L		L	P	P	L	L		L	P
Fishing: Lagoons	B&A	P	P	A	A	L	A	P	P	A	A	A	P
Labour: Construction		P	P	P	P	P	P	P	A	L	L	L	A
Labour: Agriculture		A	A	L	A	P	L	L		P	L		P
Hunger Season									A	P	P	P	A
Diarrhoea										P	P	P	
Mosquito-borne disease										P	P	P	
Festivals													

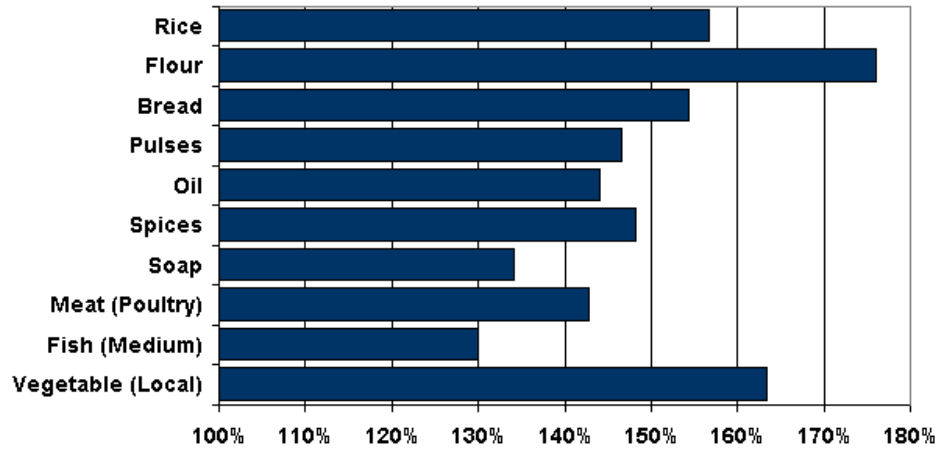
Districts:
T: Trincomalee
B: Batticaloa
A: Ampara

Coding:
L: Low
A: Average
P: Peak

4.7 MARKET PRICE TRENDS DURING THE BASELINE YEAR

There was considerable inflation during the reference year (Mar'07-Feb'08). Price changes from the beginning to the end of the year for various items are shown in Figure 27. On average, prices rose by about 50% between Mar'07 and Feb'08.

Figure 27: Price Increases from Mar'07-Feb'08



Mar'07 = 100%. Graph shows Feb'08 price as a % of Mar'07 price
Average of 6 markets (2 from each District)

The critical question in relation to inflation is whether income (i.e. the prices of goods and services sold by the poor) keeps pace with expenditure. What is worrying about the results in Figure 27 is that it appears that the prices of fish and poultry (both of which are sold by the poor) are not keeping pace with inflation. What is missing from Figure 27 is information on the casual labour rate. However, if the price of fish is not keeping pace with inflation, it seems likely that the wages paid to fishing labourers will also be lagging behind inflation. The only encouraging finding from Figure 27 is that the price of local vegetables (sold by some beneficiary households in the 'producer' group) did keep pace with inflation during the baseline year.

5 CONCLUSIONS

5.1 DATA QUALITY

Overall, the IHEA data appear to be of good quality, and it is reasonable to conclude that a valid and reliable pre-intervention baseline has been established. The two most important tests of data quality in HEA yield good results. The first of these tests relates to average food energy consumption in the baseline year. This averaged 86% of the minimum requirement for long-term survival, or 90% of minimum requirements once an adjustment was made for household composition. This is a very reasonable figure for a very poor population.

The second test is the agreement between total income and expenditure. This is excellent in the current study. Total expenditure averaged 103% and 100% of total income for the beneficiary and control groups respectively. For the beneficiary group, the vast majority of results (95%) fell within the range 95%-115%.

Another less formal test of data quality is whether the results 'make sense' in a general way, or, put another way, are there many unexplained findings that could perhaps be attributed to poor data quality? The current data pass this test as well – most of the differences between groups emerging from the current analysis make sense and can be explained fairly easily.

5.2 MATCHING OF BENEFICIARY & CONTROL GROUPS

The beneficiary and control groups appear to be very well matched. There are no significant differences between the two groups for any of the major variables measured; food consumption, cash income, expenditure and asset holdings. There were some minor differences, but these are not large enough or important enough to invalidate the study design.

5.3 WHAT CAN WE LEARN ABOUT THE LIKELY IMPACTS OF THE PROJECT?

A number of findings from the analyses presented here give clues as to how the additional income provided by the project will be spent. The first is the positive correlation between total income and total food consumption. The second is the priority given to dietary quality, and to expenditure on animal products especially. As income increases, so the ***absolute*** and ***relative*** amounts spent on animal products increases. This means more and better food available at household level. Provided children receive a fair share of this additional food, then the indications for a positive effect of the project on nutritional status are good.

The other significant finding in relation to children is that expenditure on children (other than food) is not prioritised over any other type of expenditure. As income increases, so the ***absolute*** amount spent on children's health, education and clothing increases, but the amount ***relative*** to other categories of item remains unchanged. The problem is that expenditure on children accounts for no more than 6% of total expenditure. This means that – assuming total income increases by 40% as a result of the project (Table 10) – then expenditure on children will increase by 40% as well. It remains to be seen whether this is enough to achieve the desired changes in educational outcomes, for example.

In relation to income, the results suggest that 1 in 6 beneficiary households depends primarily on gifts (44% of female-headed and 10% of male-headed households). There is a risk for these households that cash transfers will reduce gifts from other sources, with little overall effect on income.

5.4 WHAT ARE THE IMPLICATIONS FOR PROJECT DESIGN?

5.4.1 Suitability of IGAs for Labour-Poor Households

The project design documents characterize labour-poor households (i.e. those with a high dependency ratio) as unable to participate in income generating activities because they lack labour. These results suggest, on the contrary, that most labour poor households with an adult male are economically active and that half of labour poor female-headed households are actively engaged in some type of self-employment activity, and generate the majority of their income from this source. Given that many labour-poor households are economically active, it is important that as many as possible should be given access to the capital grants for IGA start-up.

Female-headed households, without an adult male, and with a high dependency ratio make most of their money from self-employment activities, such as food preparation and petty trade. The advantage of these activities is that they can be undertaken at home, allowing women to continue with household and child-care activities while also earning income. The challenge with respect to these households is to develop IGAs that generate a high return relative to labour input - if they are to increase income significantly without reducing time devoted to child-care.

It appears that female-headed households with a high dependency ratio are those most likely to have children participating in child labour. The risk of children dropping out of school is therefore likely to be high for these households, making them a high priority group for the current project.

Most beneficiary households (about 2/3) are dependant upon casual labour. For these households, most income is earned by one or more adult males, with women's share of income averaging less than 10% of the total. Based upon the findings for female-headed households, there is considerable scope for women in these households to participate in IGAs, especially self-employment activities.

5.4.2 Amount of Unconditional Cash Transfers

Assuming that income from other sources does not change, the expected effect of the unconditional cash transfers in year 1 of the project will be to reduce the percentage of households below the poverty line from 92% to 60%. The analysis presented in section 4.2.2 indicates that the simplest way of reducing the number of poor households still further is to increase the total value of transfers. Roughly speaking, a 20% increase in the value of the transfers would reduce the percentage of households below the poverty line from 60% to 50%. There seems to be little to be gained from modifying the current transfer scheme by, for example, targeting increases in the transfer to larger households (which, under the current scheme, receive a lower transfer per capita).

5.5 WHAT ARE THE IMPLICATIONS FOR MONITORING?

The majority of households are dependant upon the market both in terms of what they buy (food and non-food goods and services) and what they sell (labour, prepared foods, etc.) This applies even to the 'producer' group – production in this case is largely production of items, such as fish, poultry, eggs and vegetables for the market. None of the beneficiary households produces a significant amount of food directly for their own consumption.

As a result it will be important to monitor changes in prices - and especially casual labour rates – during the course of the project. If the prices of items sold by the poor lag behind the general inflation rate it is possible that much of the cash transfer may go towards 'balancing' the effects of inflation rather than towards achieving the desired positive outcomes for children.

The question of inflation raises two important questions:

1) Should the value of the transfer (in Rs) be increased to keep pace with local inflation?
2) Should the value of the transfer be increased to compensate beneficiaries for any loss of real income they experience as a result of inflation? This might mean increasing the value of transfer by more than the rate of inflation.

6 APPENDICES

6.1 MORE INFORMATION ON THE STATISTICAL ANALYSIS

The first question is how representative are our two samples (beneficiary and control), and which population do they represent? The first point to note is that the beneficiary villages were not selected at random. Rather, they were selected purposively to match two main criteria linked to the design of the project, i.e. villages affected by the tsunami and without other livelihoods-based interventions. Although not randomly selected, it seems reasonable to treat the sample as though it has been selected at random from a larger population of potential beneficiary villages. Ideally, this would be the total population of tsunami-affected villages. Unfortunately – from a research point-of-view, if not a project-design point-of-view - the inclusion of the second selection criteria – 'without other livelihoods-based interventions' - introduces a potential source of bias into the sample. This results from the possibility that villages without livelihoods-based interventions might differ in some way from other tsunami affected-villages where there were on-going livelihoods-based interventions at the time of sample selection. The difference could be in the severity of the tsunami effects, for example (possibly more severe in villages being assisted), or a difference in poverty level between assisted and unassisted villages. However, if a source of bias has been introduced by the method of sample selection, it is difficult to see how this might influence the relationship being studied here, i.e. that between level of income and children's welfare. The working hypothesis must therefore be that we are dealing with a sample of villages that can be considered representative of tsunami-affected villages as a whole, at least in terms of the relationships being studied here. And since the control villages were selected using a similar procedure to that for the beneficiary villages, it is reasonable to conclude that these villages too are reasonably representative of tsunami-affected villages as a whole.

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 (district, activity group, etc.) fitted as a series of categorical variables. For these analyses the village was defined as the primary sampling unit (PSU). Multiple regression analysis was used to investigate whether crude (or unadjusted) differences between groups could be accounted for by other confounding factors, such as differences between district and/or pattern of livelihood. Differences have only been reported as significant where they persisted after adjustment for these possibly confounding factors.

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 600). 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 30 results to arise by chance ($1/20^{th}$ of the 600 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.

6.2 DETAILS OF THE SAMPLE

Table 17: List of Villages to be Assisted, their Pattern of Livelihood & Number of Households Surveyed				
District	**DS Division**	**GN Division**	**Pattern of Livelihood**	**No. HHs surveyed**
Ampara	Kalmunai Tamil	Chenaikudiyirupu 1A	Agriculture	30
	Karithivu	Mavadipalli East	Agriculture	22
	Addalachchenai	Palamunai 06	Agriculture	19
		Palamunai 02	Sea Fishing	27
		Oluvil 04	Sea Fishing	27
	Thirukovil	Vinayagapuram 01	Agriculture	20
Sub-Total				**145**
Batticaloa	KoralaiPattu West (Oddamawady)	Meeravoodai Muslim East	Lagoon Fishing	48
		Meeravoodai Muslim West	Lagoon Fishing	47
	Koralaipattu (Valaichenai)	Meeravoodai Tamil	Lagoon Fishing	20
		Kalmadu	Sea Fishing	58
	Koalaipattu South Kiran	Kiran East	Sea Fishing	68
		Palayadythona	Sea Fishing	38
	Eravupattu Chenkallady	Kaluwankerney 01	Sea Fishing	60
		Kaluwankerney 02	Sea Fishing	60
		Aarumuganthnkudyiruppu 01	Sea Fishing	27
		Aarumuganthnkudyiruppu 02	Sea Fishing	42
		Mylampawaly	Sea Fishing	29
	Manmunai North	Manchanthoduwai south	Sea Fishing	42
Sub-Total				**539**
Trincomalee	Kinniya	Mancholaichenai	Sea Fishing	71
		Faizal Nagar	Sea Fishing	20
	Town & Gravets	Poompuhar	Semi-urban	83
Sub-Total				**174**
GRAND TOTAL				**858**

Table 18: List of Control Villages, their Pattern of Livelihood & Number of Households Surveyed				
District	**DS Division**	**GN Division**	**Pattern of Livelihood**	**No. HHs surveyed**
Ampara	Ninthavur	Addapallam	Agriculture	12
		Ninthavur - 23	Agriculture	34
		Ninthavur - 10	Fishing	16
Sub-Total				**62**
Batticaloa	Koalaipattu South Kiran	Kiran West	Fishing	34
	Eravupattu Chenkallady	Iyankerni	Labour	49
		Thalawai	Fishing	35
	Manmunai North	Nochimunai-1	Fishing	41
		Nochimunai-2	Fishing	24
Sub-Total				**183**
Trincomalee	Kinniya	Annal Nagar	Sea Fishing	34
	Town & Gravets	Ganthi Nagar	Semi urban	26
Sub-Total				**60**
GRAND TOTAL				**305**

6.3 IHEA DATA: DIFFERENCES BETWEEN DISTRICTS AND LIVELIHOOD ZONES

The difficulties of this type of analysis with the current dataset are described in section 3.3. Looking for differences between districts and livelihood zones requires an analysis between villages (as opposed to the analysis between households within villages presented in previous sections). The main problem with the current sample is two-fold:

1) the number of villages (21 in total) is really too small to allow much sub-division of the sample into sub-groups.
2) the survey design is relatively unbalanced. There is, for example, only one semi-urban village (out of 3 villages sampled in Trincomalee), and only 4 agricultural villages (all of which are in Ampara, where the total sample size is 6). This makes it very difficult to separate out differences between livelihood zones and those between districts, even if advanced statistical methods are used.

Despite these difficulties, the results were compared by district and livelihood zone, and the main findings are listed below. These findings need to be interpreted with caution, given the relatively small sample size.

In general terms, there were no major differences by district and livelihood zone. The most consistent differences were between the one semi-urban village in the sample and remaining villages, and between Trincomalee (which includes the semi-urban village) and other districts.

The main findings[6] from the comparisons by district and livelihood zone are:

- No differences in total food consumption (%kcals) by district or livelihood zone
- 12% higher total income in Trincomalee compared to other districts, mainly due to higher cash income from labour. This may partly be explained by the presence of the semi-urban village in the Trincomalee sample, but it may also be a reflection of better access to urban labour for the other two villages in the sample as well.
- Much of this higher income is spent on staple foods, partly because of higher staple food prices (for wheat flour and bread especially) reported by the semi-urban village and by Trincomalee generally[7].
- Fewer hens owned in the semi-urban village compared to elsewhere
- Fewer kcals obtained from own production in the semi-urban village
- More expenditure on animal products in the semi-urban village (perhaps reflecting the lower ownership of hens and fewer kcals from own production)
- More cash income from own production in the agricultural villages compared to elsewhere
- Lowest expenditure on staple foods in Ampara, linked to lower prices of flour and bread in the district.

[6] All of which are statistically significant at the $p<0.01$ level.
[7] These differences are substantiated by the data from the market price survey, which show higher flour and bread prices in Trincomalee than other districts.

6.4 RESULTS TABLES

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

Data for Figure 2: Total Number of Beneficiaries, by Age and Sex								
Gender	Age group (years)							
	0-2.9	3-5.9	6-10.9	11-14.9	15-18.9	19-59.9	>=60	Total
Female	222	217	598	510	323	1438	102	3410
Male	223	222	599	511	348	1018	93	3014
Total	445	439	1197	1021	671	2456	195	6424

Data for Figure 3: %Children with Educational Issue, by Age				
	Age group (years)			
	3-5.9	6-10.9	11-14.9	15-18.9
Total	19%	41%	50%	37%

Data for Figure 4: Type of Educational Issue, by Age				
Type of Issue	Age group (years)			
	3-5.9	6-10.9	11-14.9	15-18.9
None	81%	59%	50%	63%
Irregular	12%	38%	39%	13%
Drop-out	1%	1%	10%	23%
Out-of-school	6%	1%	1%	1%

Data for Figure 5: %Children with Child Protection Issue, by Age & Figure 6: Child Protection Issues - By Age					
Type of Issue	Age group (years)				
	0-2.9	3-5.9	6-10.9	11-14.9	15-18.9
neglect	1%	2%	4%	6%	4%
working	0%	0%	0%	2%	11%
separation	1%	3%	3%	3%	2%
abuse	0%	0%	0%	1%	2%
total	2%	5%	8%	12%	20%

Data for Figure 7: Child Protection Issues - By Gender		
Type of Issue	Gender	
	male	female
neglect	4%	4%
working	4%	1%
separation	2%	3%
abuse	1%	1%
total	12%	8%

Data for Figure 8: Cash Income of Beneficiary Households compared to the National Poverty Line		
Cash Income (Rs pppm)	**Number of Households**	
	Without transfers	**With transfers**
<= 445	2	0
446-645	2	0
646-845	13	0
846-1045	47	0
1046-1245	87	6
1246-1445	142	11
1446-1645	134	35
1646-1845	117	88
1846-2045	103	118
2046-2245	84	129
2246-2445	59	125
2446-2645	22	90
2646-2845	18	84
2846-3045	9	80
3046-3245	7	35
3246-3445	5	17
3446-3645	4	14
3646-3845	1	12
3846-4045	0	6
>4045	2	8
total	858	858

Data for Figure 9: Total Cash Income & Value of the Transfer, by Household Size		
HH Size	**Rs pppm**	
	Cash Income	**Average Transfer**
2-3	1940	842
4-5	1803	720
6-7	1612	630
8+	1537	464

Data for Figure 10: Food Consumption, by Source, Beneficiary & Control Groups					
Group	**% minimum food needs, by source of food**				
	Total	**Own prod**	**Purchase**	**Gifts**	**Aid**
Beneficiary	90%	1%	72%	4%	8%
Control	92%	1%	73%	3%	10%

Data for Figure 11: Cash Income, by Source, Beneficiary & Control Groups								
Group	**Source of Cash (Rs pppm)**							
	Total	**Own prod**	**Employ-ment**	**Self emp**	**Aid**	**Gifts**	**Loans/asset sales**	**Other**
Beneficiary	1718	79	981	270	25	146	164	52
Control	1650	100	1012	224	19	114	148	34

Data for Figure 12: Expenditure, by Type, Beneficiary & Control Groups							
Group	Type of Expenditure (Rs pppm)						
	Total	Food	San+Ad. health	Children	Inputs	Debt Repay	Other
Beneficiary	1764	1283	98	106	16	33	227
Control	1635	1236	82	90	8	14	205

Data for Figure 13: Expenditure on Food, by Type, Beneficiary & Control Groups									
Group	Type of Expenditure (Rs pppm)								
	Staple	Pulses	Oil	Sugar	An.Prod	Fruit & Veg	Coconut	Condiments	Prep. food
Beneficiary	455	32	52	67	279	146	99	85	65
Control	467	25	50	63	237	156	104	81	53

Data for Figure 14: Food Consumption, by Source, by Activity Group					
Activity Group	% minimum food needs, by source of food				
	Total	Own prod	Purchase	Gifts	Aid
Employed	87%	1%	74%	3%	8%
Self-Emp	87%	1%	72%	4%	9%
Producers	88%	3%	73%	3%	9%
Destitute	84%	2%	64%	9%	9%

Data for Figure 15: Cash Income, by Source, by Activity Group								
Activity Group	Source of Cash (Rs pppm)							
	Total	Own prod	Employ-ment	Self emp	Aid	Gifts	Loans/asset sales	Other
Employed	1705	22	1368	69	16	65	135	31
Self-Emp	1783	26	142	1300	39	114	139	23
Producers	1873	1417	138	96	41	75	84	22
Destitute	1681	71	283	233	49	537	331	178

Data for Figure 16: Cash Income from Labour & Self Employment, by Activity Group and Gender						
Activity Group	Source of Cash (Rs pppm)					
	Labour_M	Self-Emp_M	Labour_F	Self-Emp_F	Labour_NS	Self-Emp_NS
Employed	1222	25	92	43	51	2
Self-Emp	103	716	28	542	11	42
Producers	123	83	0	13	12	0
Destitute	227	55	46	176	3	2

Note: NS means gender not specified

Data for Figure 17: Expenditure, by Type, by Activity Group							
Activity Group	Type of Expenditure (Rs pppm)						
	Total	Food	San+Ad.health	Children	Inputs	Debt Repay	Other
Employed	1745	1284	92	103	8	27	231
Self-Emp	1831	1352	105	104	13	33	224
Producers	1958	1229	89	125	173	33	309
Destitute	1741	1225	121	117	21	60	197

Data for Figure 18: Food Consumption, by Source, by Household Composition					
Group	% minimum food needs, by source of food				
	Total	Own prod	Purchase	Gifts	Aid
Male adult, low-dep	87%	2%	74%	4%	8%
Male adult, high-dep	85%	2%	71%	4%	9%
Female adult, low-dep	84%	1%	63%	9%	11%
Female adult, high-dep	83%	1%	66%	6%	10%

Data for Figure 19: Cash Income, by Source, by Household Composition								
Group	Source of Cash (Rs pppm)							
	Total	Own prod	Empl	Self emp	Aid	Gifts	Loans/ assets	Other
Male adult, low-dep	1787	90	1086	251	25	126	162	48
Male adult, high-dep	1467	51	1014	135	22	67	148	29
Female adult, low-dep	1551	55	426	444	32	283	208	103
Female adult, high-dep	1460	16	286	513	26	376	159	83

Data for Figure 20: Cash Income from Labour & Self Employment, by Gender & Household Composition						
Group	Source of Cash (Rs pppm)					
	Labour_ M	Self-Emp_M	Labour_F	Self-Emp_F	Labour_ NS	Self-Emp_NS
Male adult, low-dep	997	145	45	99	42	7
Male adult, high-dep	950	90	31	35	33	10
Female adult, low-dep	96	26	318	402	0	16
Female adult, high-dep	117	139	148	374	21	0

Data for Figure 21: Expenditure, by Type, by Household Composition							
Group	Type of Expenditure (Rs pppm)						
	Total	Food	San+Ad .health	Childre n	Inputs	Debt Repay	Other
Male adult, low-dep	1832	1327	102	107	17	38	241
Male adult, high-dep	1510	1101	79	106	10	19	194
Female adult, low-dep	1613	1175	98	107	24	20	189
Female adult, high-dep	1506	1159	78	94	11	12	152

Data for Figure 22: Food Consumption, by Source & Level of Cash Income					
Group	% minimum food needs, by source of food				
	Total	Own prod	Purchase	Gifts	Aid
1 - least poor	90%	1%	78%	2%	8%
2	88%	1%	76%	3%	8%
3	86%	2%	71%	4%	9%
4 – poorest	80%	2%	62%	8%	9%

Data for Figure 23: % Total Cash Income, by Source & Level of Cash Income								
Group	Source of Cash (Rs pppm)							
	Total	Own prod	Empl	Self_e mp	Aid	Gifts	Loans/ assets	Other
1 - least poor	2464	121	1280	466	52	230	215	101
2	1852	97	1101	254	21	142	188	48
3	1472	55	870	202	17	135	153	41
4 – poorest	1075	44	664	166	12	73	96	20

Data for Figure 24: % Total Expenditure, by Type of Expenditure & Level of Cash Income						
Group	% total expenditure, by type of expenditure					
	Food	San+Ad. health	Children	Inputs	Debt Repayment	Other
1-least poor	67%	6%	6%	2%	3%	16%
2	74%	6%	6%	1%	1%	12%
3	76%	5%	6%	0%	1%	11%
4-poorest	79%	5%	6%	1%	1%	9%

Data for Figure 25: %Total Expenditure on Non-Staple Foods, by Level of Cash Income								
Group	Type of Expenditure (Rs pppm)							
	Pulses	Oil	Sugar	An.Prod	Fruit & Veg	Coco nut	Condiments	Prep. food
1-least poor	2%	3%	3%	18%	8%	5%	5%	4%
2	2%	3%	4%	17%	8%	6%	5%	4%
3	2%	3%	4%	13%	9%	6%	5%	4%
4-poorest	2%	3%	5%	11%	9%	6%	5%	3%