CHARS LIVELIHOODS PROGRAMME

Chars Livelihoods Programme

Reducing Extreme Poverty on the Riverine Islands of North West Bangladesh

Longitudinal Analysis of Key Livelihood Indicators

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Innovation Monitoring Learning and Communications Division

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MAXWELL STAMP PLC

Australian Aid

UKaid from the British people

Contents

Acronyms

CLP	Chars Livelihoods Programme
CPHH	Core participant household
HDU	Human Development Unit
pppd	Per person per day
Tk	Taka
VSL	Village Savings and Loans

Executive Summary

CLP's Innovation, Monitoring, Learning, and Communications (IMLC) Division is responsible for monitoring progress of Core Participant Households (CPHHs) against a range of indicators. These indicators have been grouped under six thematic areas, namely Graduation, Women's Empowerment, Livelihoods, Food Security, Nutrition as well as Water Sanitation and Hygiene. The focus of this report is on livelihoods'-related indicators, namely productive assets, cash savings and income/ expenditure.

By March 2016, CLP 2 will have supported 78,026 core participant households (CPHHs). These CPHHs have been divided into six groups, known as cohorts. Each cohort has been brought into the programme at different points between May 2010 and September 2014. CPHHs have received support for a period of 18 months.

IMLC has collected data from a panel sample of CPHHs between May 2010 and October 2014. Data has been collected for all cohorts at baseline and then annually thereafter. A total of six surveys have been conducted. This report presents progress against the core livelihoods' indicators over time and for all six cohorts; it is a longitudinal study.

Income/ expenditure

For all cohorts both mean income and expenditure increase in real terms after baseline. Mean income and expenditure almost mirror each other.

As time progresses the proportion of income from different sources changes in importance. At baseline by far the most important source of income is wage labour (67% for Cohort 2.2 – 91% for Cohort 2.3). As time progresses, new sources of income become relatively more important e.g. land and livestock, whilst the proportion of income from wage labour reduces (42.5% for Cohort 2.1 – 49% for Cohort 2.2%).

Mean expenditure patterns also show marked changes over time. At baseline, and for all cohorts, a significant proportion of total expenditure is devoted to buying food (between 71% for Cohort 2.6 and 83% for Cohort 2.3). With time, the proportion of total expenditure on food falls significantly (between 43% for Cohort 2.4 and 48% for Cohort 2.1.) The proportion of expenditure on investment and 'other' expenditure increases e.g. house rebuild costs, clothing, transport etc. This is consistent for all cohorts.

The proportion of households spending more than 70% of their income on food falls significantly after baseline e.g. Cohort 2.2: from 80% of CPHHs to just 11% of CPHHs between baseline (October 2010) and October 2014. This pattern is again consistent across all cohorts.

Productive assets

The data shows the mean value of productive assets increases significantly after baseline for all cohorts e.g. mean productive assets for Cohort 2.1 at baseline are less than Taka 900 but increase to over Taka 62,000 in 2014. However, not all households succeed (in terms of their productive assets). For example 11% of Cohort 2.1 households had assets of less than Taka 5,000 in October 2014 (53 months after they started to receive support).

Not only do mean productive assets increase after baseline, the composition of CPHHs' productive assets changes markedly. With time, CPHHs own a much wider range of productive assets and a high percentage own land and cattle e.g. 30% of Cohort 2.1 own land and 50% own cattle in October 2014 compared to 0% owning either at baseline. At baseline, the main composition of productive assets is limited to poultry, and goats/ sheep.

Cash savings

The mean value of cash savings held by CPHHs increases with time after baseline. The rate and amount of cash saved by Cohorts 2.1 – 2.3 is lower and less rapid than latter cohorts (Cohorts 2.4 and 2.5). A possible, and likely, explanation for this is that Village Savings and Loans group members were motivated to save more (by taking more shares and increasing the cost/ share) from Cohort 2.4 onwards.

Relationship between assets and income

There is a positive and moderate correlation between mean productive assets and mean income for all cohorts. A possible reason why the correlation is not stronger is because wage labour still represents a significant proportion of total income even after asset transfer (between 37% of total income for Cohort 2.4 and 49% for Cohort 2.2 in October 2014.

1. Background

Extreme poor households living in the chars are largely reliant on selling wage labour which is prone to seasonal fluctuations in demand. They confront multiple constraints including erosion, annual flooding, poor access to markets and limited access to quality education and health facilities.

At the core of CLP's response has been the provision of an income generating asset (largely livestock), livelihoods training and cash stipends for 18 months[1]. The Programme's objective has been to essentially diversify and create sustainable livelihoods.

Core indicators related to CLP's theory of change include income and expenditure, the value of productive assets owned and cash savings. The report presents progress of CPHHs against these indicators for up to six points in time (in the case of Cohort 2.1) between May 2010 and October 2014. It is a longitudinal study. Table 1 shows when the surveys were conducted and the number of months between baseline and October 2014, which is the latest survey.

Table 1: By cohort, number of months between baseline and October 2014 (latest survey)

Cohort	Survey month and year (and when baseline data collected)	Number of months between baseline and October 2014 survey
2.1	May 2010	53
2.2	October 2010	48
2.3	June 2011	40
2.4	October 2012	24
2.5	October 2013	12
2.6	October 2014	0

This report has been developed for a number of reasons. To-date IMLC has conducted relatively limited analysis of the latest (October 2014) annual survey. Furthermore, the recent (February 2014) annual review team recommended presenting more detailed analyses of key indicators i.e. presenting more than just means.

The questions this study aims to answer are:

Income/ expenditure

- What is mean income & expenditure at baseline and how does this change over time?
- What is the variation in income/ expenditure (at baseline and over time)?
- What is the composition of income & expenditure at baseline and how does this change over time?

Productive assets

- What is the mean value of productive assets at baseline and how does this change over time?

[1] A full explanation of the CLP's package of support can be found at www.clp-bangladesh.org

- What is the variation in value of productive assets (at baseline and over time)?
- What is the composition of productive assets at baseline and how does this change over time?

Cash savings

- What are mean cash savings at baseline and how do they change over time?
- What is the variation in cash savings (at baseline and over time)?

2. Methodology

This report is based on data collected during six surveys between May 2010 and October 2014. Each survey collected information from a panel sample of households from the incoming Cohort i.e. baseline status. Each survey also collected follow-up data from previous cohorts (Table 2). Data collection was outsourced to local companies who had experience in collecting information from char households.

Table 2: Timing, sample and content of the surveys

	Survey 2010	**Survey 2010**	**Survey 2011**	**Survey 2012**	**Survey 2013**	**Survey 2014**
Month	**May**	**October**	**June**	**October**	**October**	**October**
Cohorts included	Baseline 2.1 Follow up CLP 1	Baseline 2.2	Baseline 2.3 Follow up CLP 1, 2.1, 2.2	Baseline 2.4 Follow up CLP 1, 2.1, 2.2, & 2.3	Baseline 2.5 Follow up CLP 1, 2.1, 2.2, 2.3 & 2.4	Baseline 2.6 Follow up CLP 1, 2.1, 2.2, 2.3 , 2.4 & 2.5
Demographic Information	✓	✓	✓	✓	✓	✓
Income	✓	✓	✓	✓	✓	✓
Expenditure	✓	✓	✓	✓	✓	✓
Assets	✓	✓	✓	✓	✓	✓
Savings	✓	✓	✓	✓	✓	✓
Food Security	✓	✓	✓	✓	✓	✓
WASH	✓(limited)	✓(limited)	✓(limited)	✓	✓	✓

Nutrition	✓	✓	✓	✓	✓(very limited)	✓
Women's empowerment	✓(very limited)	✓(very limited)	✓(very limited)	✓	✓	✓
Graduation	✓(very limited)	✓(very limited)	✓(very limited)	✓	✓	✓

There are some limitations with the data:

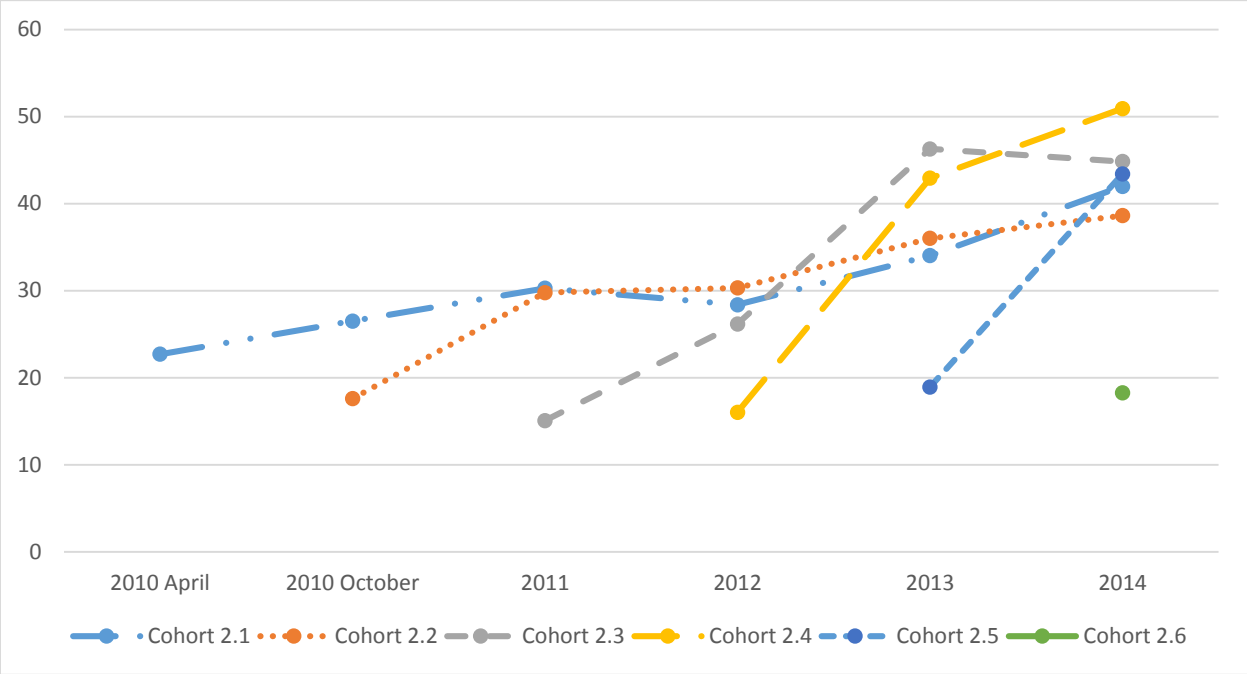
- Some of the questions rely on lengthy recall periods. For example, respondents are asked to report on their income and expenditure during the last 30 days. They are also asked to report on income and expenditure during the last 12 months; the latter being an attempt to pick up 'lumpy' sales or purchases such as livestock and crops.
- Some households may be motivated to under-report their income and over-report their expenditure.
- The wife of the male-head of the household is the respondent. At times this can be problematic if she doesn't know some information such as income/ expenditure. Responses from the male head are then sought if available.
- Many of the surveys have been conducted during the lean season (monga) or immediately after flooding. This is a relatively 'depressed' period in terms of employment opportunities which can lead to lower than expected results.
- There are limitations with panel samples. Repeated visits to the same household can result in the respondent telling the enumerator what s/he thinks the enumerator wants to hear.

3. Findings

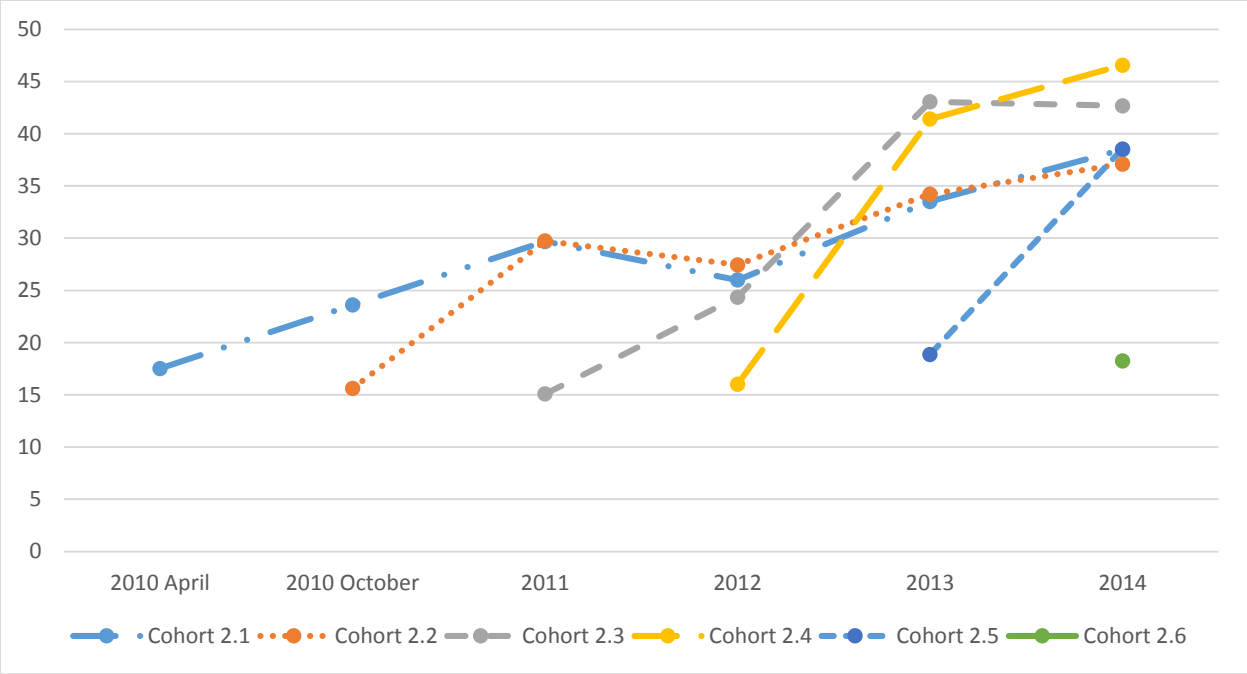
3.1. Income

a. Mean income and expenditure

Figure 1: Mean incomes (Taka, pppd) by cohort over time



Figures 2: Mean expenditure (Taka, pppd) by cohort over time



Figures 1 and 2 show mean income and expenditure per person per day (pppd) respectively at baseline for each cohort and at different points in time thereafter. The values have not been adjusted for inflation. Mean (unadjusted) income increases significantly ($p < 0.05$) over time[2] for all cohorts. Mean expenditure mirrors the trend of mean incomes and increases are statistically significant ($P < 0.05$). Mean expenditure is slightly less than mean income indicating some (but quite limited) scope for making cash savings.

Table 3: 'Real' changes in mean incomes (Taka, pppd) by cohort, between baseline and October 2014.

	Mean income (Taka pppd)			
Cohort	**Baseline value (and year)**	**Baseline value adjusted to 2014 values[3]**	**October 2014 survey values**	**% change between baseline and October 2014**
2.1	22.7 (2010)	31.0	42.0	**40**
2.2	17.6 (2010)	24.0	39.0	**60**
2.3	15.6 (2011)	19.0	45.0	**140**
2.4	16.0 (2012)	18.3	51.0	**180**
2.5	19.0 (2013)	20.2	43.4	**120**

Table 4: 'Real' changes in mean expenditure (Taka, pppd) by cohort, between baseline and October 2014.

Mean expenditure (Taka pppd)				
Cohort	**Baseline value (and year)**	**Baseline value adjusted to 2014 values**	**Cohort**	**Baseline value (and year)**
2.1	17.5 (2010)	23.5	38.5	60
2.2	15.6 (2010)	21.0	37.0	80
2.3	15.0 (2011)	18.3	42.6	130
2.4	16.0 (2012)	18.3	46.6	150
2.5	19.0 (2013)	20.2	38.5	90

Table 3 and 4 show the 'real' changes in mean income and expenditure for each cohort at baseline and in October 2014 i.e. the values have been adjusted for inflation.

In real terms, mean incomes and expenditure have increased for all cohorts between baseline and October 2014. Mean incomes and expenditure for Cohorts 2.1 and 2.2 have increased in real

[2] Except in 2012. See Annex 2 -Table 6 and Table 7.

[3] 2010-2011 (10.18%), 2011-2012 (6.51%), 2012-2013 (7.47%), 2013-2014 (6.5%). Source: Bangladesh Bank (www.bb.org.bd).

terms but this has been at a lower rate than for Cohorts 2.3 – 2.5. The reason for this is likely to be related to methodology[4].

Figure 3: Proportion of households, by cohort, with an income increase of at least 50% above baseline in real terms

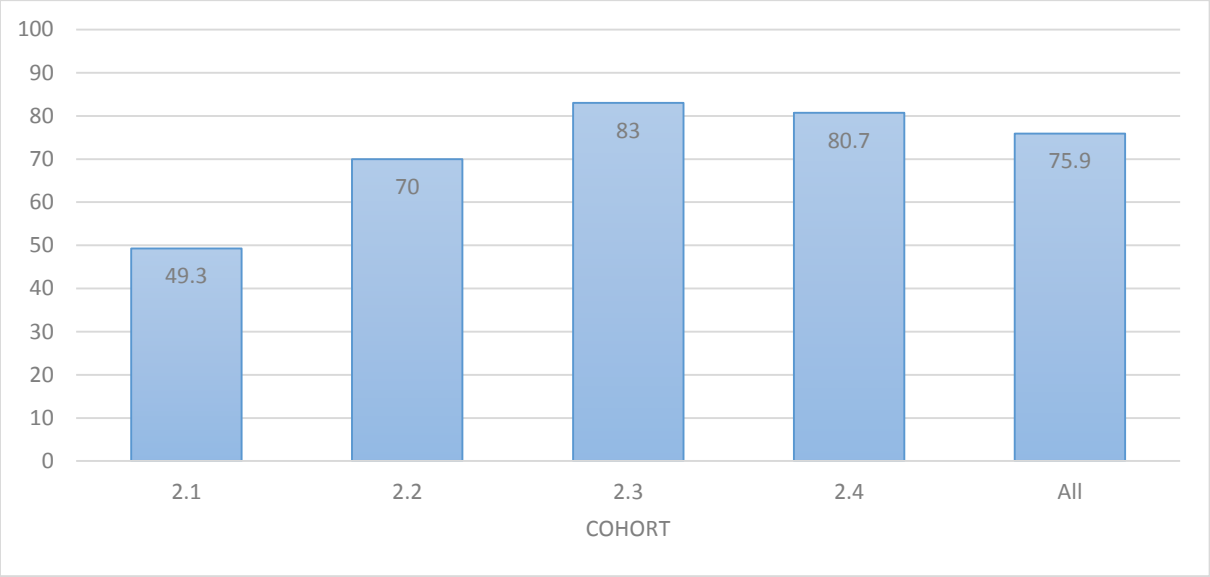
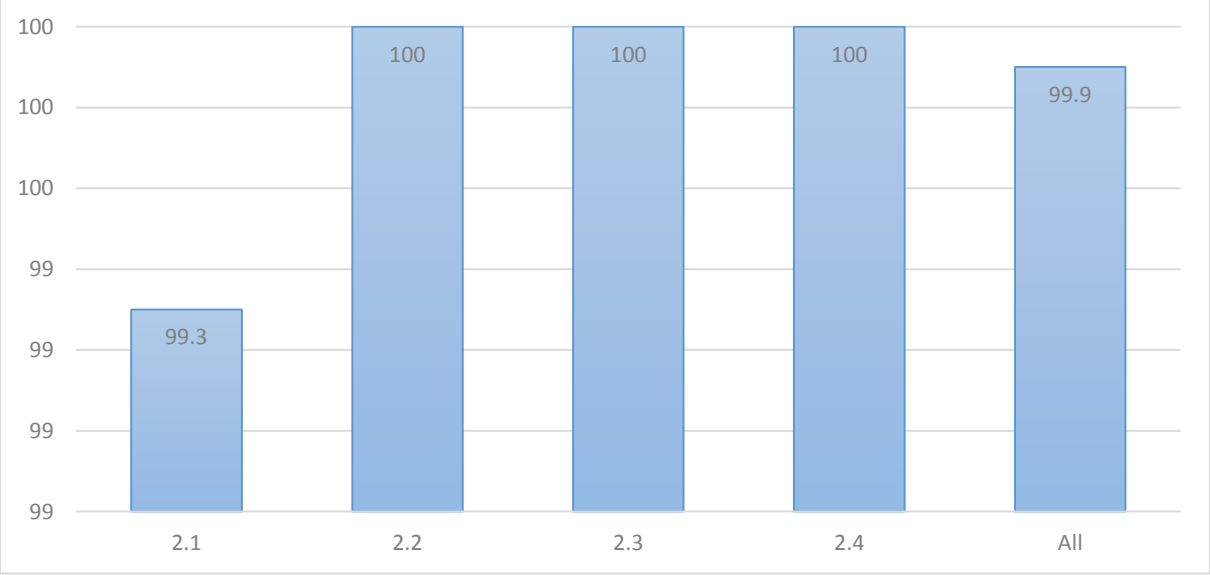


Figure 4: Proportion of households, by cohort, with an expenditure increase of at least 50% above baseline in real terms



[4] The baseline values for Cohorts 2.1 and 2.2 collected income data based on household income during the last 30 days. This value was then divided by 30 (days in a month) and the number of hh members. Baseline values for Cohorts 2.3-2.6 on the other hand collected household income during the last 30 days as well as during the last 12 months. This was then divided by 12 (months in the year), 30 (days in a month) and the number of hh members. See Annex 1 for more detail.

CLP has a logframe target: 'For those who received assets 36 months previously, mean household per capita income and expenditure increases by 50% (in real terms) above their baseline on entry for 85 % of targeted core households.' Figure 3 shows that 76% of households achieved the income target in October 2014. The Programme is therefore slightly under-target for this indicator. CLP is however achieving the target related to expenditure.

b. Variation in income and expenditure

Figures 1 and 2 show mean income and expenditure at baseline and at different points in time. The problem with mean values is that they don't allow us to see what proportion of households are doing relatively well or for that matter, the proportion of households that are doing less well (in terms of income and expenditure). Figures 1 - 4 (Annex 2) have therefore been developed to show the spread (variation) of income and expenditure, by cohort at baseline and in October 2014.

All baselines show relatively low mean income and expenditure (in relation to October 2014 values) and low levels of variation. October 2014 data however shows relatively high mean income and expenditure (in relation to baseline values) and a greater spread in values i.e. more variation.

At baseline, households are a relatively homogenous group (in terms of income and expenditure) i.e. they are earning and spending similar amounts. October 2014 data shows however that not all households are performing with the same degree of success. As we'll see in section 3.3 below, in terms of productive assets, some households are performing better than others.

c. Income sources

Figure 5: Proportion of income from different sources, by cohort, at baseline

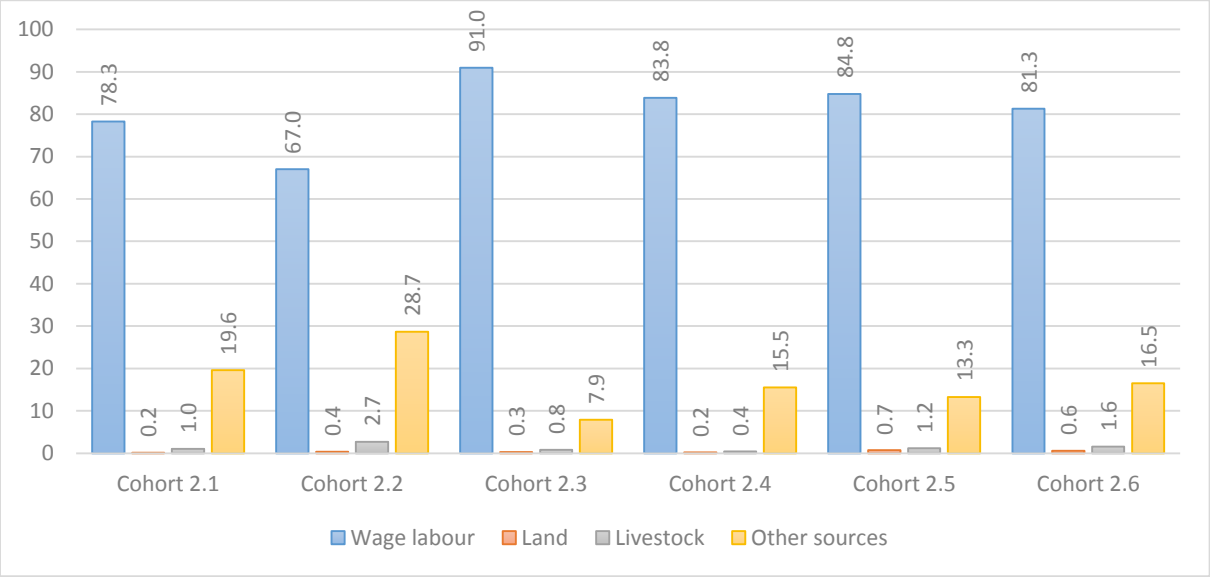
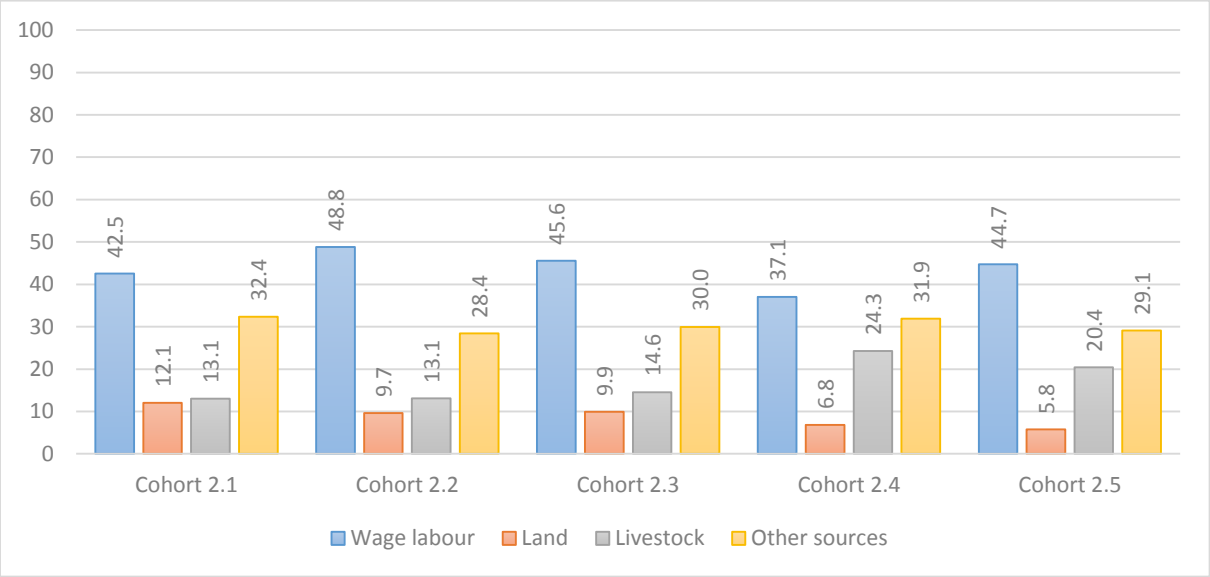


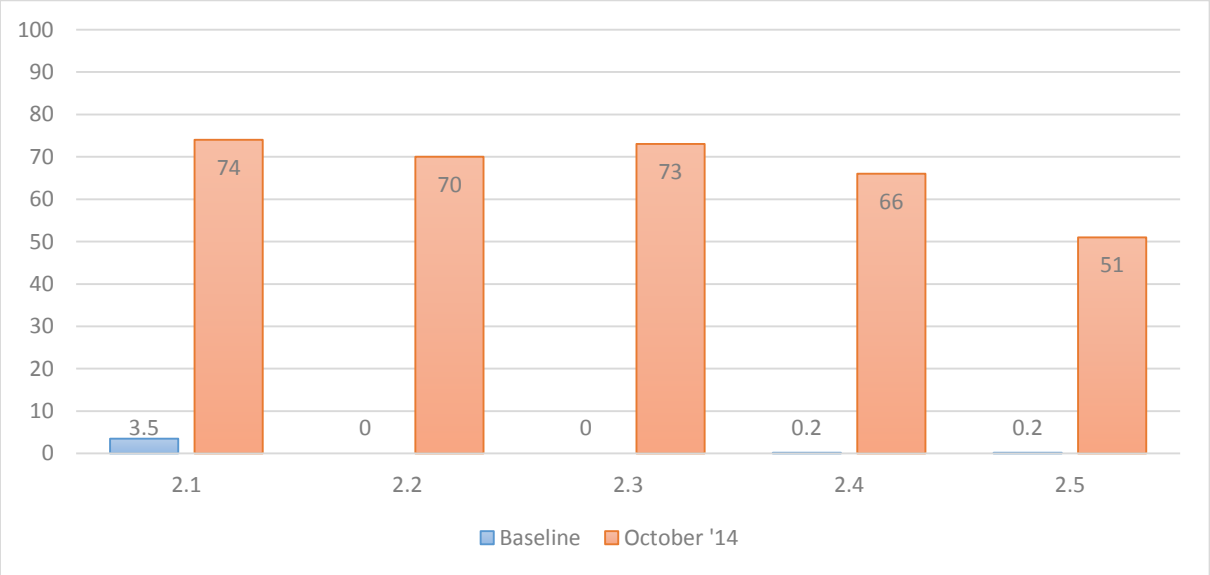
Figure 6: Proportion of income from different sources, by cohort, in October 2014



Figures 5 and 6 show how the proportion of income from different sources has changed for all cohorts between baseline and October 2014. At baseline, income from wage labour represents by far the largest proportion of total income for all cohorts (the proportion ranges from 67% for Cohort 2.2 to 91% for Cohort 2.3). Over time we see this proportion decreasing e.g. 78% for Cohort 2.1 at baseline to 42% in October 2014.

Figures 5 and 6 also show a diversification in income sources between baseline and October 2014. The proportion of income from livestock, land and other sources increases with time. Figure 7 illustrates hoe households diversify into land after baseline.

Figure 7: % of households with access to land, by cohort, at baseline and in October 2014



*Land categories include own land, mortgage in & out, share in & out, lease in & out and khas land.

d. Composition of expenditure

Figure 8: Composition of expenditure, at baseline and by cohort

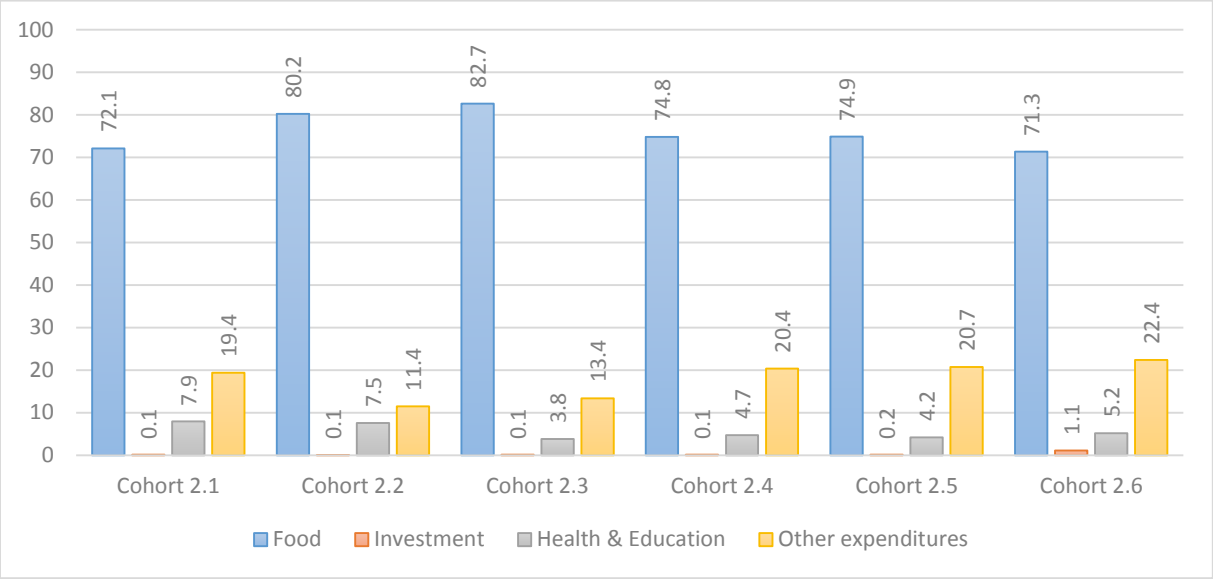
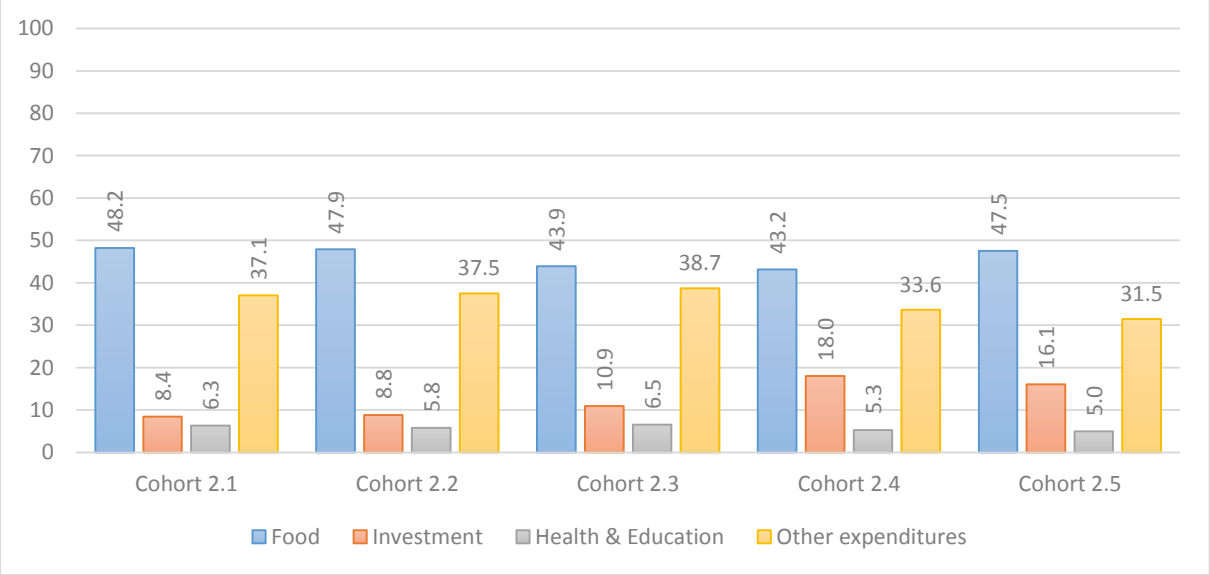


Figure 9: Composition of expenditure, in October 2014 and by cohort



* 'other expenditure' includes house rebuild costs, clothing, transportation, social events, mobile device and credit and furniture)

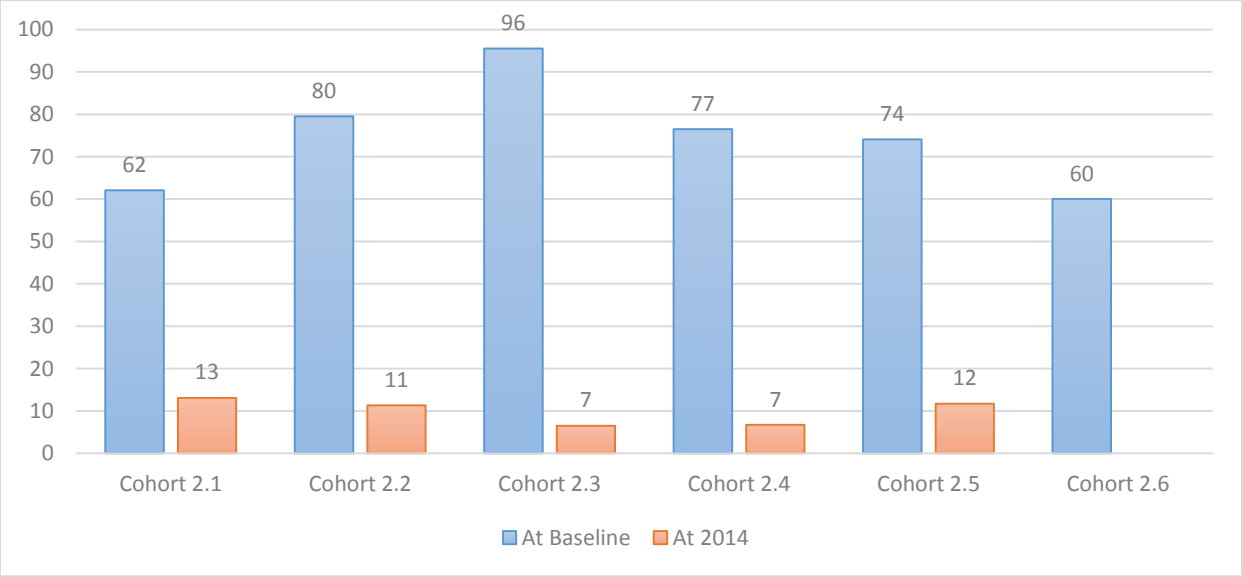
Figures 8 and 9 show what households spent their income on at baseline and in October 2014 respectively.

At baseline, for all cohorts, most expenditure is devoted to food (71-83%). There is practically zero expenditure on investment items (land, trees and livestock) and expenditure on health and education is low (not more than 8% of total expenditure).

The proportion of expenditure on food reduces significantly after CLP support (71-83% at baseline to 43-48% in October 2014). Figure 10 shows how the proportion of households spending more than 70% of their income on food falls dramatically between baseline and October 2014.

Whilst the proportion of expenditure on food reduces over time, encouragingly the proportion of expenditure on investment items increases from practically zero at baseline to 8-18% in October 2014. The proportion of expenditure on health and education remains more-or-less the same between baseline and October 2014.

Figure 10: % of households spending more than 70% of their income on food



3.2. Cash savings

Research questions:

What are mean cash savings at baseline and how do they change over time?

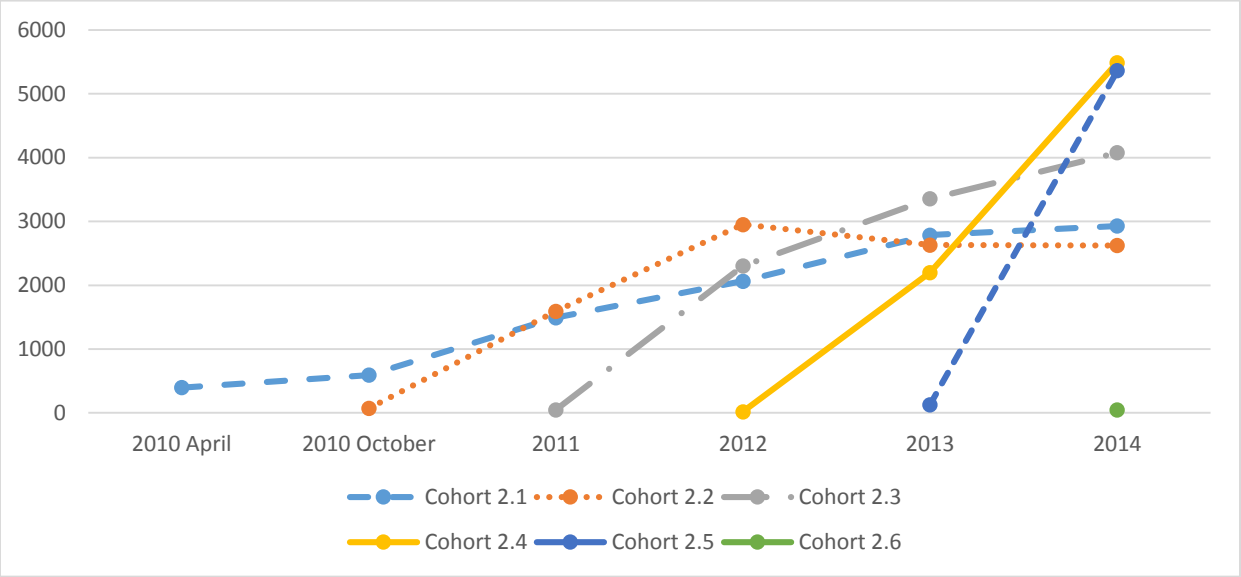
What is the variation in cash savings (at baseline and over time)?

a. Mean value of cash savings

Cash savings include 1) cash in the house 2) loans given to others 3) savings with the Village Savings and Loans group (VSL) 4) savings in the bank.

Cash savings are necessary to help cushion households against shocks such as erosion and a family illness. When confronted with such shocks and without cash savings, households would need to borrow from other sources resulting in indebtedness and/ or they have would have to sell assets.

Figure 11: Mean value of cash savings by cohort (Taka)



Baseline cash saving nature are homogeneous among the cohorts except 2.1[5]. At baseline, the mean value of cash savings does not exceed Tk 400 (Cohort 2.1). For Cohorts 2.2 - 2.6 mean cash savings do not exceed Tk 100. After CLP support, and for all cohorts, mean cash savings increase significantly ($P < 0.05$) with time[6]; all cohorts have mean cash savings above Tk 2,500 in October 2014.

Cohorts 2.4 and 2.5 have significantly greater mean cash savings than Cohorts 2.1 – 2.4. The rate of savings has also been much greater. Logical reasons for these increased savings rates and amounts are 1) from 2.4 onwards, the Human Development Unit (HDU) encouraged greater savings[7] 2) Cohort 2.4 and 2.5 households have seen that VSL does actually offer a safe place to save having seen the experience of earlier cohorts in the village. They therefore have the confidence to save larger amounts.

b. Variation in value of cash savings

At baseline there is very little variation in cash savings for all cohorts (apart from 2.1). Over 97% have cash savings below Taka 500 (Figure 5, Annex 2). For Cohort 2.1 however there is slight variation at baseline with more than 22% having cash savings of more than Taka 500 (Figure 6, Annex 2). In October 2014 however we see significant variation:

- more than 74% of Cohorts 2.2 to 2.5 have cash savings of more than Tk 500 in October 2014 compared to 2% at baseline
- more than 25% of Cohorts 2.1 to 2.5 have cash savings in excess of Taka 2,500 in October 2014 compared to almost 0% at basel

[5] Cohort 2.1 has slightly higher average value than the other cohorts. Please see Annex 2 – Table 4.
[6] See Annex 2 – Table 8.
[7] By encouraging the cost per share to increase from Tk 30 to Tk 40 and by encouraging more shares to be purchased during each meeting (up to 5 shares).

3.3. Productive assets

Productive assets:

What is the mean value of productive assets at baseline and how does this change over time?

What is the variation in value of productive assets (at baseline and over time)?

What is the composition of productive assets at baseline and how does this change over time?

a. Mean value of productive assets

CLP monitors the value of productive assets owned by CPHHs. The reasons are 1) CLP's logical framework has an indicator and target[8] associated with productive assets 2) productive assets such as livestock, rickshaws, sewing machines etc [9] generate income and are a proxy for the 'economic wellbeing of the household.

Figure 12: Mean value of productive assets by cohort over time

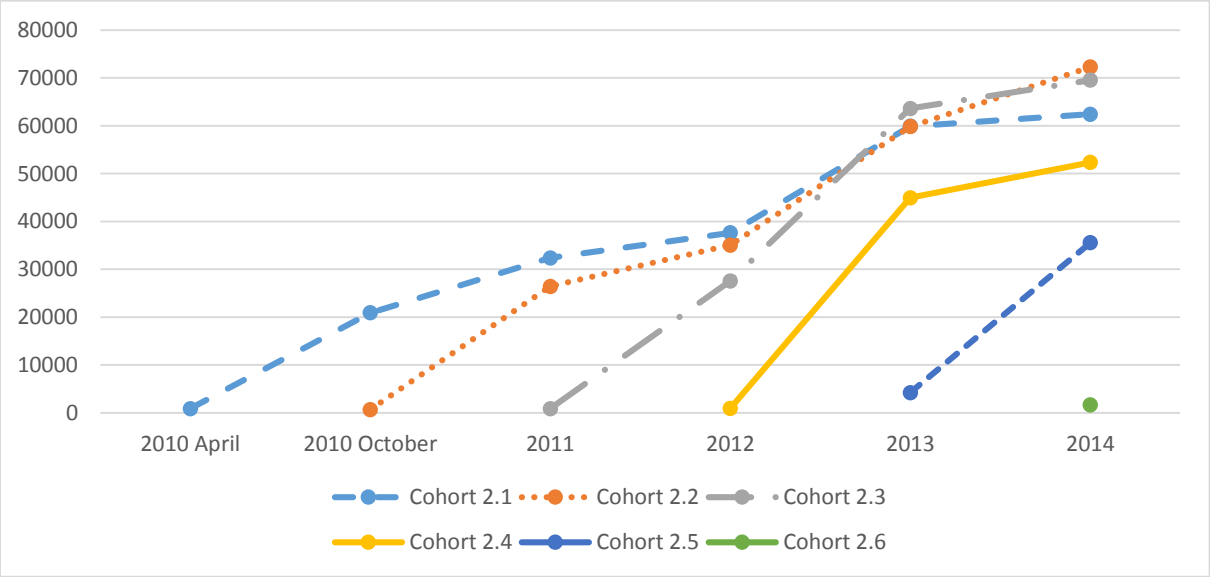


Figure 12 illustrates how the mean value of productive assets for all cohorts increases with time from a relatively low base. At baseline the mean value of productive assets does not exceed Taka 1,700 for Cohorts 2.1-2.4. Statistically baseline productive assets for all cohorts are homogeneous except 2.5.[10] In October 2014 the mean value of productive assets increased well above the value

[8] January 2016 target: 85% of all households with productive assets doubled in value

[9] The main categories include: land, livestock including goats and sheep and share cattle, poultry, rickshaw, boat, fishing net, sewing machine, trees and machinery e.g. water pump.

[10] See Annex 2 – Table 5.

of assets provided by CLP.[11]It also shows productive assets are increasing significantly overtime in all cohorts.[12]

a. Composition of productive assets

Figure 13: Composition of productive assets at baseline, by cohort

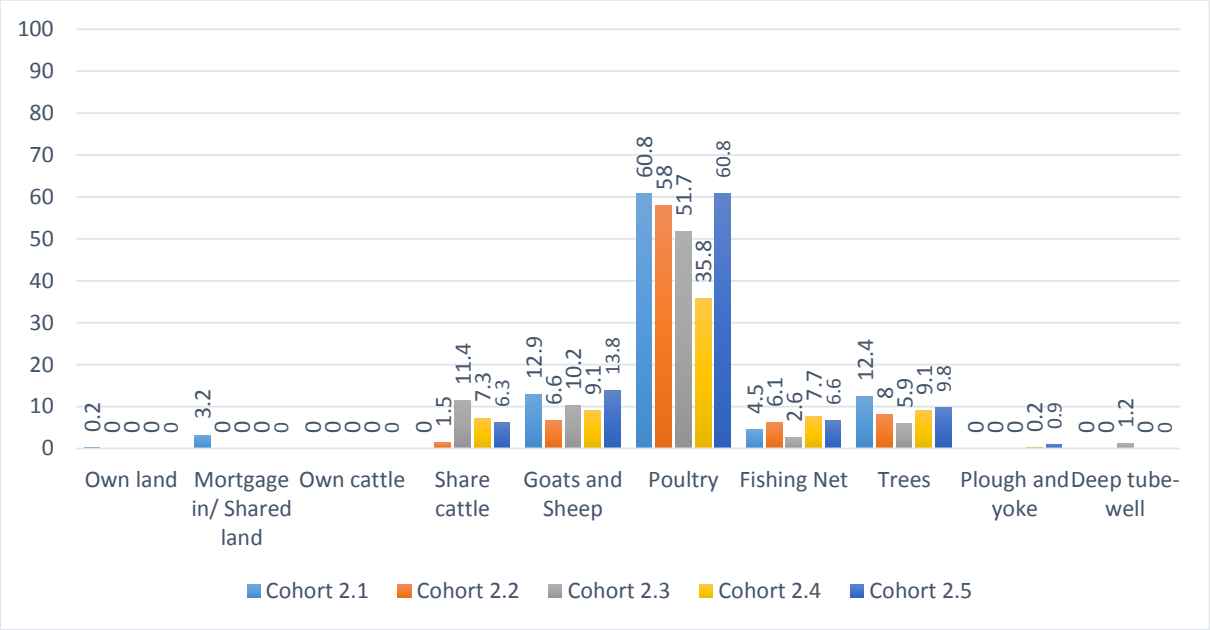
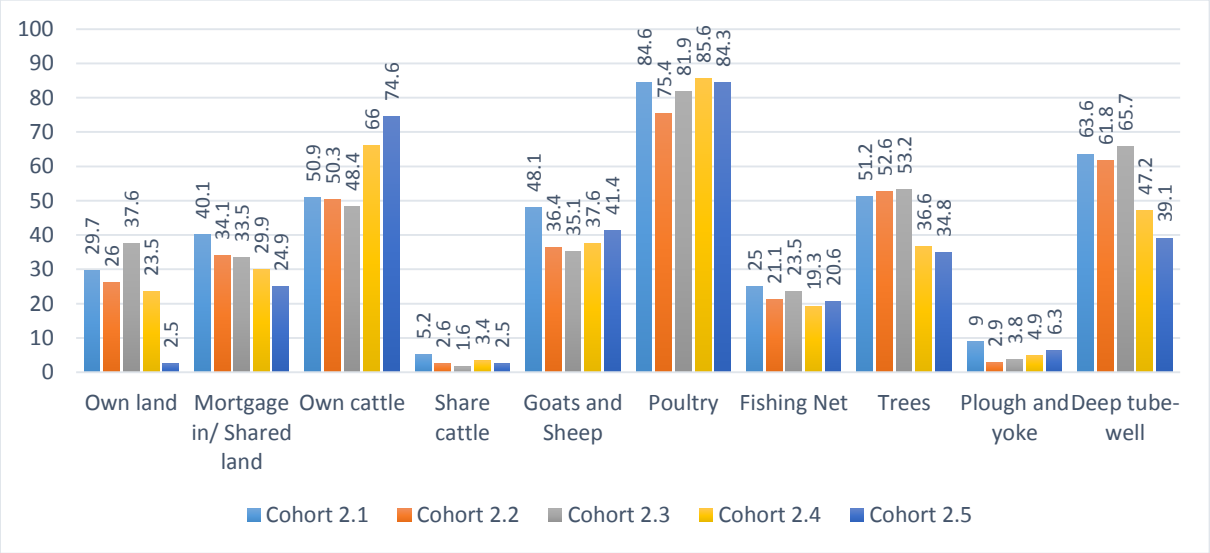


Figure 14: Composition of productive assets in October 2014, by cohort



Figures 13 and 14 show significant changes in the composition of productive assets between baseline and October 2014. The changes broadly follow the same pattern for all cohorts. At

[11] Value of asset grant provided by CLP: 2.1 (Taka 15,500); 2.2 (Taka 15,500); 2.3 (Taka 16,000); 2.4 (Taka 16,500); 2.5 (Taka 17,000); 2.6 (17,500)

[12] See Annex 2 – Table 9.

baseline, any productive assets that CPHHs have are limited to poultry (chickens, ducks, pigeons). Some households, albeit very few, have goats/ sheep and shared cattle. The October 2014 data (Figure 14) illustrates that with time we see:

- CPHHs owning a wider range of productive assets;
- High proportions of CPHHs actually owning cattle (between 51% and 75% of Cohort 2.1 and 2.5 respectively);
- High proportions of CPHHs actually owning land (between 23% and 38% of Cohort 2.4 and 2.3 respectively).

b. Variation in value of productive assets

At baseline, CPHHs are homogenous in terms of the value of productive assets they hold i.e. there is little variation (Figure 7, Annex 2). With the exception of Cohort 2.5 households at baseline, 98% of all cohorts have productive assets of less than Tk 5,000. This changes over time however. The value of productive assets owned by CPHHs shows much greater variation in October 2014 (Figure 8, Annex 2) indicating different levels of success (in terms of productive assets). For example, in October 2014 between 33% and 48% of CPHHs from Cohorts 2.1-2.4 had productive assets exceeding Tk 70,000 in October 2014whilst between 6% and 11% had assets of less than Tk 5,000.

c. Relationship between productive assets and income

It is logical to assume that the more productive assets a household has then the higher their income will be. Table 1 (Annex 2) supports this logic. It shows there is a positive and moderate correlation between mean productive assets and mean income for all cohorts. A possible reason why the correlation is not stronger is because wage labour still represents a significant proportion of total income even after asset transfer (between 37% of total income for Cohort 2.4 and 49% for Cohort 2.2 [Figure 6].)

Annex 1: Background to monitoring/ analysing income and expenditure data

CLP has logical framework indicators related to income and expenditure and therefore has an obligation to monitor and report progress against the relevant milestones and targets. As has been pointed out before by CLP, income and expenditure data should however be treated with some caution:

- It relies on memory recall
- Respondents may underestimate income and over-estimate expenditure
- Comparisons with income poverty lines require the same methodologies be applied for any comparisons to be meaningful.
- Etc.

IMLC collects income and expenditure data from panel samples for each cohort at baseline, bi-monthly whilst support is ongoing (for 18 months) and then during the annual follow-up surveys.

In this report, income and expenditure per person per day calculations have been calculated as follows: income over the last 12 months/ 360 days/ number of hh members = income pppd.

Income categories include: wage labour, income from sales of agricultural production, livestock, and homestead gardening. Expenditure categories include: food expenditure, health and education, investment, others (e.g. clothing, house repair)

Up to Cohort 2.3 CLP collected and analysed income and expenditure during the last 30 days. Income (and expenditure) during the last 30 days was calculated as: income over the last 30 days/ 30/ number of hh members = income pppd.

From the Cohort 2.3 baseline (following an annual review recommendation) CLP started collecting income/ expenditure over the last 12 months (in addition to the last 30 days). This income formed the basis of the pppd calculation i.e. income over the last 12 months/ 360 days/ number of hh members = income pppd.

There are pros and cons to collecting data over 12 months:

- There is a heavy reliance on memory recall.
- It does collect information on 'lumpy' income/ expenditure such as sale and purchase of livestock, land, crops etc. that may fall outside the 30 day recall period.

CLP has compared income and expenditure data based on this approach (12 month recall) with the bi-monthly data (which relies on a 30 day recall period). In general, the data is consistent.

Different authors have documented income and expenditure at different times over the course of CLP (both phases) e.g. consultants, internal CLP staff, CLP 1 Impact Assessment team. It is likely that different methods of analysis have been used.

Annex 2: Additional analyses

a. Income and expenditure variation

Figure 1: Variation in income at baseline, by cohort

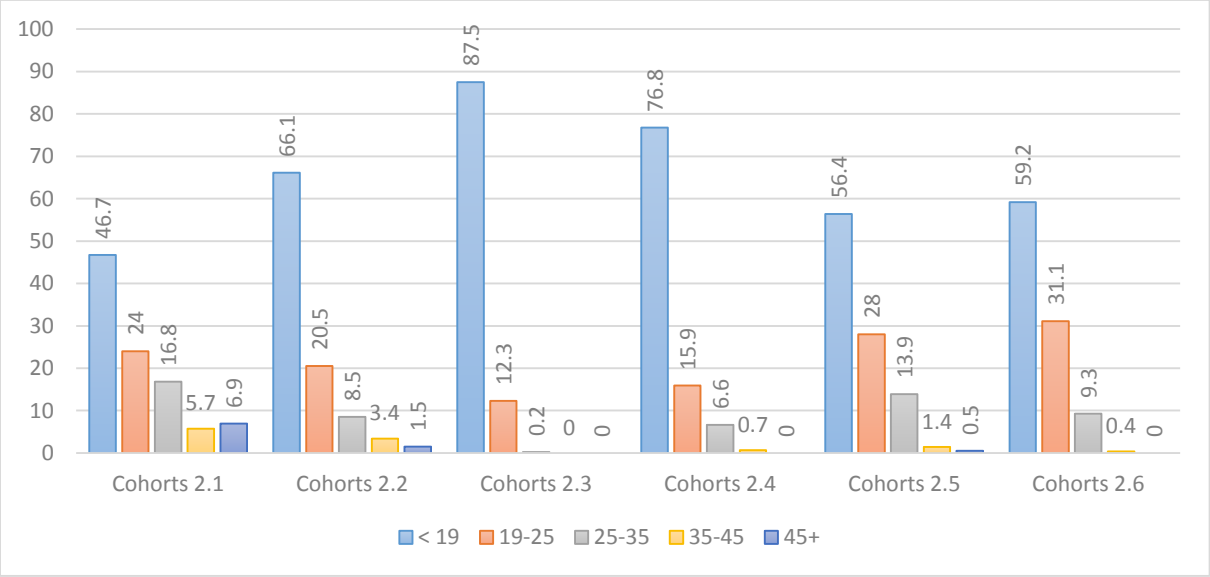


Figure 2: Variation in income in October 2014, by cohort

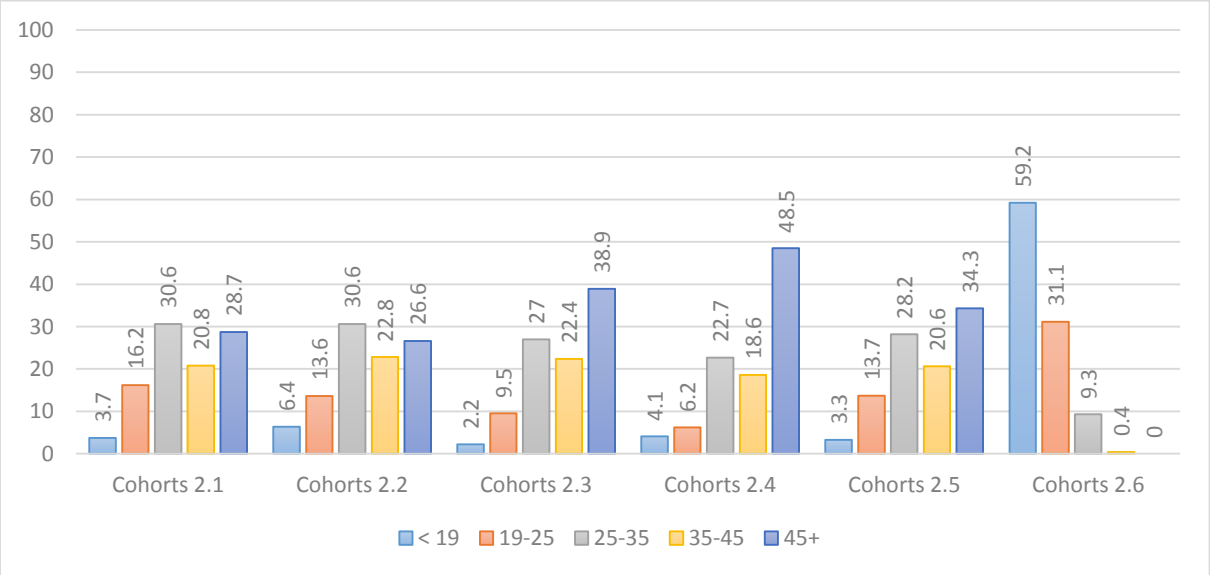


Figure 3: Variation in expenditure at baseline, by cohort

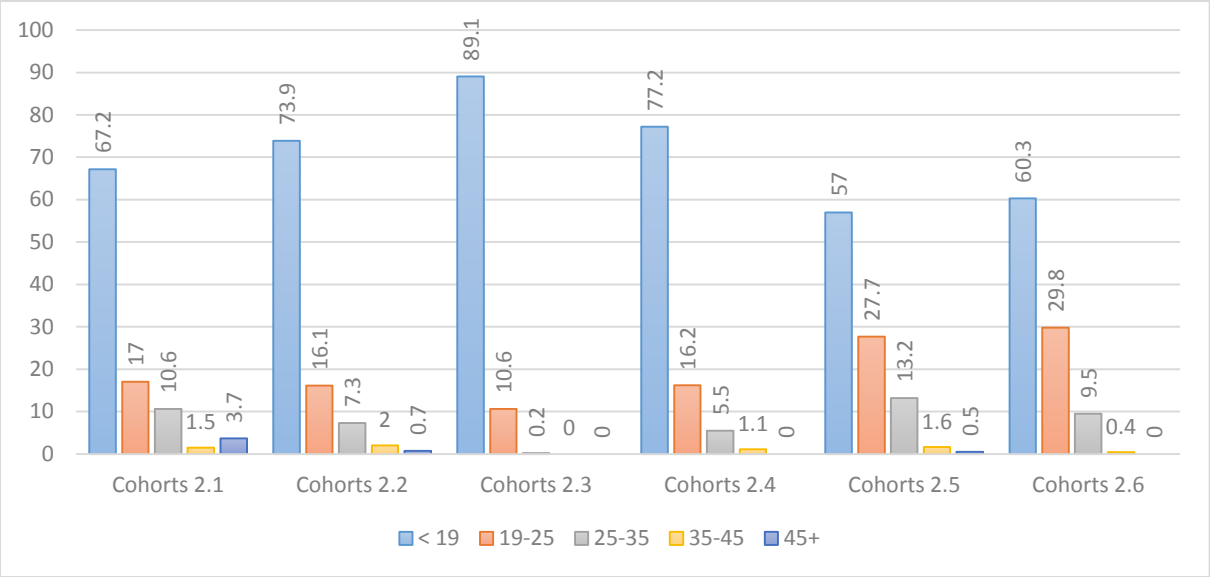
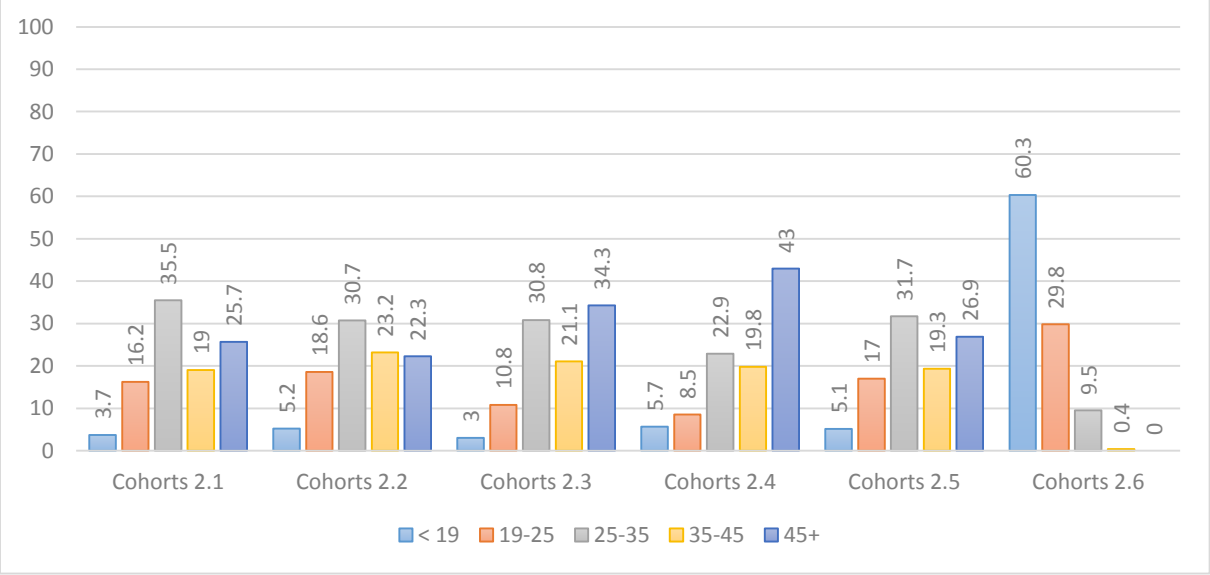


Figure 4: Variation in expenditure in October 2014, by cohort



b. Cash savings variation

Figure 5: Variation in cash savings at baseline, by cohort

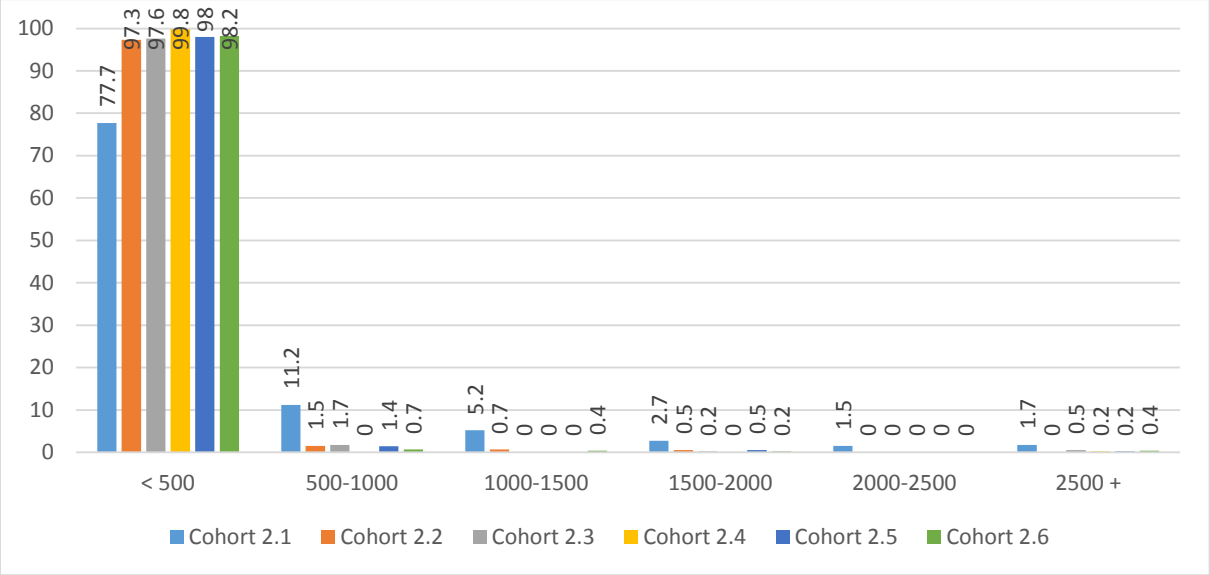
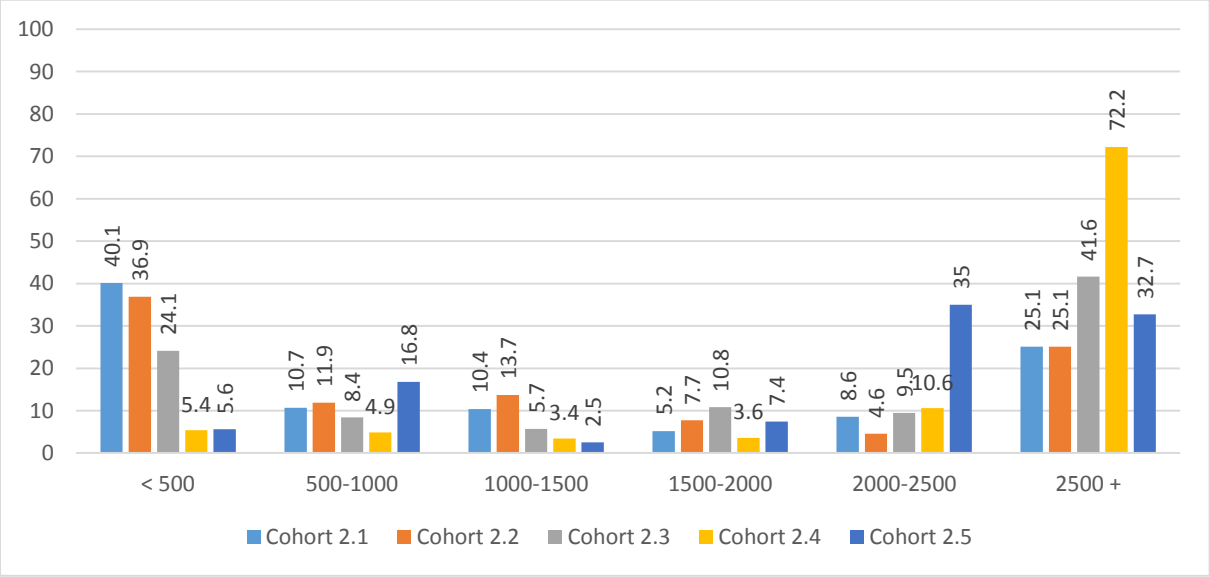


Figure 6: Variation in cash savings in October 2014, by cohort



c. Productive Assets variation

Figure 7: Variation in the value of productive assets held by CPHHs at baseline

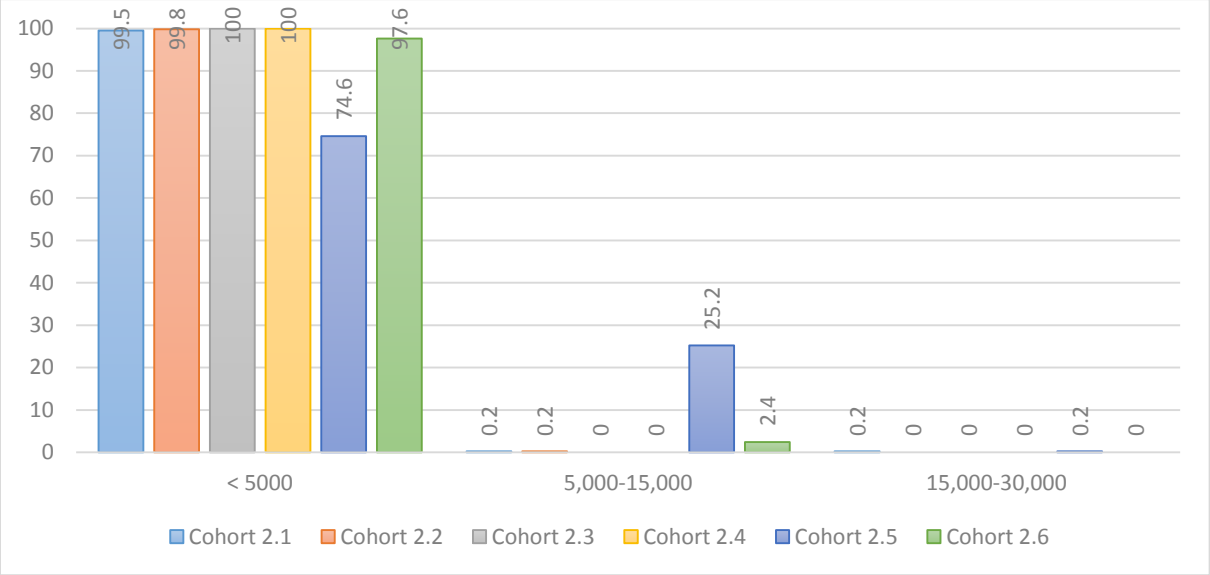


Figure 8: Variation in the value of productive assets held by CPHHs in October 2014

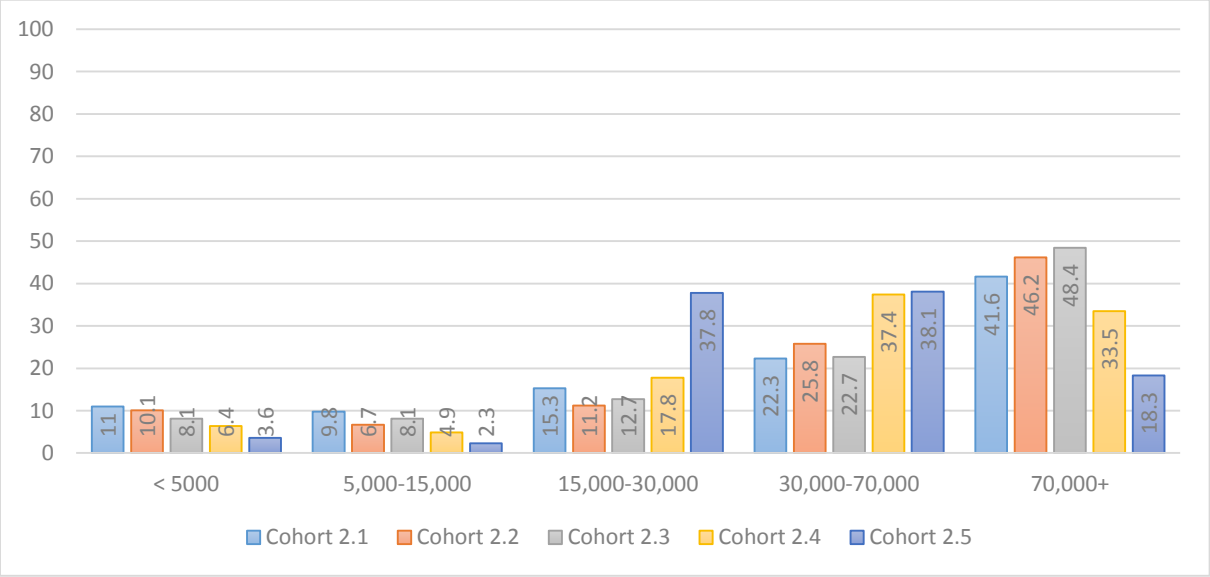


Table 1: Correlation between productive assets and income between baseline and October 2014 for all cohorts

Correlation between HHs Income and Productive Asset values	Baseline	October '14
Cohort 2.1	.151**	.328**
Cohort 2.2	.157**	.264**
Cohort 2.3	.317**	.267**
Cohort 2.4	.252**	.447**
Cohort 2.5	.334**	.179**
**. Correlation is significant at the 0.05 level (2-tailed).		

Table 2: Homogeneity test (independent t test) of baseline Income PPPD among the cohorts.

	2.1	2.2	2.3	2.4	2.5	2.6
2.1	-	**	**	**	**	**
2.2	**	-	**	**	NS	*
2.3	**	**	-	**	**	**
2.4	**	**	**	-	**	**
2.5	**	NS	**	**	-	NS
2.6	**	*	**	**	NS	-

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 3: Homogeneity test (independent t test) of baseline Expenditure PPPD among the cohorts.

	2.1	2.2	2.3	2.4	2.5	2.6
2.1	-	**	**	**	**	NS
2.2	**	-	NS	NS	**	**
2.3	**	NS	-	NS	**	**
2.4	**	NS	NS	-	**	**
2.5	**	**	**	**	-	**
2.6	NS	**	**	**	**	-

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 4: Homogeneity test (independent t test) of baseline HH savings among the cohorts.

	2.1	2.2	2.3	2.4	2.5	2.6
2.1	-	**	**	**	**	NS
2.2	**	-	NS	NS	NS	NS
2.3	**	NS	-	NS	**	NS
2.4	**	NS	NS	-	**	NS
2.5	**	NS	*	**	-	**
2.6	**	NS	NS	NS	**	-

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Productive assets

Table 5: Homogeneity test (independent t test) of baseline HH productive assets among the cohorts.

	2.1	2.2	2.3	2.4	2.5	2.6
2.1	-	NS	NS	NS	**	**
2.2	NS	-	NS	NS	**	**
2.3	NS	NS	-	NS	**	NS
2.4	NS	NS	NS	-	**	NS
2.5	**	**	**	**	-	**
2.6	**	**	**	**	**	-

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 6: Pairwise t test of Income PPPD over time by cohorts.

	2010 June	2010 October	2011	2012	2013	2014
2.1	-	**	**	NS	**	**
2.2		-	**	NS	**	**
2.3			-	**	**	NS
2.4				-	**	**
2.5					-	**

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 7: Pairwise t test of Expenditure PPPD over time by cohorts.

	2010 June	2010 October	2011	2012	2013	2014
2.1	-	**	**	NS	**	**
2.2		-	**	NS	**	**
2.3			-	**	**	NS
2.4				-	**	**
2.5					-	**

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 8: Pairwise t test of cash savings over time by cohorts.

	2010 June	2010 October	2011	2012	2013	2014
2.1	-	*	**	**	NS	NS
2.2		-	**	**	NS	NS
2.3			-	**	**	*
2.4				-	**	**
2.5					-	**

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)

Table 9: Pairwise t test of productive assets over time by cohorts.

	2010 June	2010 October	2011	2012	2013	2014
2.1	-	**	**	**	**	**
2.2		-	**	**	**	**
2.3			-	**	**	**
2.4				-	**	**
2.5					-	**

NS = Mean difference is not significant
**. Mean difference is significant at the 0.05 level (2-tailed).
*. Mean difference is significant at the 0.1 level (2-tailed)