Assessing Rural Transformations in Oromia, Ethiopia: IHM evidence

Evidence for Development working paper 1

Celia Petty
Wolf Ellis

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Acknowledgements

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Assessing the impact of their interventions in the context of rapid social and economic transformations is a major challenge for agencies involved in rural development. The Assessing Rural Transformations (ART) project was designed to address this challenge, investigating practical and credible ways of assessing the impact of development activities. Two approaches were used: the Qualitative Impact Assessment Protocol (QUIP), a tool for self-reported attribution, and the Individual Household Method (IHM), a relatively new approach to measuring and monitoring income at household level.

The IHM allows users to disaggregate and quantify the contribution made by specific project activities to a household’s overall economic status and its capacity to access the goods and services required for social inclusion and well-being. It is a tool that can be used to track change at household level and to gain insights into the drivers of change. This information can be used as a guide for further investigations using the most appropriate methodologies, making it an ideal tool for use in the ART project.

This working paper introduces the IHM and discusses findings from the case study in the Oromia region of central Ethiopia. Three further papers describe findings from Karonga district in northern Malawi, Tigray region in northern Ethiopia, and Lilongwe district in central Malawi.

Understanding change using the IHM

The IHM was developed by Evidence for Development, a UK-based research and capacity building non-profit organisation. The IHM is grounded in Amartya Sen’s theory of exchange entitlements and provides a comprehensive analysis of the ways in which a household uses its productive assets to generate the income required to access basic needs and exercise rights and capabilities. IHM data can also be used to track changes in individual income sources over time, and as a programme design tool, to model the impacts of variation in the prices or production of any household income source.

Household budget survey methods developed in the last century in the industrial ‘north’ do not transfer well to rural areas in the global ‘south’. Many rural households retain a proportion of the food they produce for their own consumption. They may also receive food as gifts or food aid.

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1 For more details of Evidence for Development, see: [http://wwwefd.org/](http://wwwefd.org/)
transfers, collect wild foods, or receive food as payment for work. For this reason, IHM methodology classifies all income as either ‘food income’, measured in kcal, or ‘cash income’ measured in the local currency. Software designed by Evidence for Development calculates the proportion of the household’s total food energy requirement\(^3\) met by its food income and the cost of purchasing the outstanding requirement, based on the mid-year market price of the most commonly consumed local staple foods. Any money remaining from the household’s cash income after it has purchased this food is described as ‘disposable income’ (DI):

\[
\text{Disposable income} = \\
\text{Sum of all household cash income} - \left( (\text{Household food energy requirement}\ [\text{kcal}] - \text{Sum of all household food income}\ [\text{kcal}]) \times \text{Price per kcal of staple diet} \right)
\]

Households that do not have sufficient income to meet their WHO reference standard food energy requirement are considered to be below the food poverty line and to have a negative disposable income. To allow for comparison between households of different size and demography, income is further standardised by ‘adult equivalent’\(^4\), giving disposable income per adult equivalent (DI/AE). Figures that are not standardised per adult equivalent may be described as ‘raw’.

Finally, a ‘standard of living threshold’ (SoLT) is set. This represents the cost of a basket of essential items that are required to meet the local norms for social inclusion. Items are identified in consultation with groups of poorer women and men. They represent the minimum set of items that would be purchased annually by non-destitute poor households. This varies by locality, but will always include items such as clothes, soap and any applicable primary school costs. In some contexts social inclusion may require the purchase of tea or coffee to offer hospitality; in others blankets and fuel are a necessity; elsewhere health insurance may be mandatory. When calculating each household’s cost of meeting the standard of living threshold, personal costs (such as clothes, primary school costs, etc.) are allocated according to the age and gender of individuals in the household; other costs such as fuel are allocated per household. Households that cannot afford the full set of items are described as being below the standard of living threshold.

Data is generally collected for a twelve-month period covering the most recent ‘agricultural year’. The agricultural year is established in consultation with the study community at the start of the assessment. In longitudinal studies, cash values are adjusted for inflation. This is based on a local price index wherever possible, rather than on national inflation figures which may include items that are not relevant to rural populations.


\(^4\) The number of adult equivalents per household is calculated as the total household energy requirement divided by the energy requirement of a young adult (2,600 kcal per day).
The Oromia malt barley project

This working paper summarises the findings of the IHM study conducted in Oromia region, Ethiopia, to assess the impacts of an NGO malt barley production project on beneficiary households. The study covers the period from early 2011 to early 2014.

The malt barley project was developed in response to the growing market for bottled beer in Ethiopia’s booming economy and the supply needs of local breweries. It aims to enhance the livelihoods of small-scale farmers by increasing their malt barley production and obtaining better terms and prices through producer cooperatives. The project targets smallholder farmers who are also members of cooperative groups. It provides access to improved seeds, and offers training in farming practices to improve yields. Criteria for the selection of project beneficiaries include: “(a) no outstanding debt, (b) farming actively and properly, (c) able to make the 50% down payment for the seed and unlikely to default on the 50% credit component”.

Three IHM studies were carried out between February 2013 and November 2014. These covered the agricultural years April 2011 – March 2012 (full sample), April 2012 – March 2013 (mini-IHM with 40% sample), and April 2013 – March 2014 (mini-IHM with 40% sample). Evidence for Development (EfD) provided initial training for local field staff and directed the first study. Field work for the follow-up studies was led by a member of Self Help Africa’s local staff who had been trained and supervised by EfD and achieved IHM Level III (assessment leader) certification. All data was cross-checked by EfD, who carried out the final analysis. The same protocol was carried out for all studies.

Field research protocol

**Sampling:** The project area consists of three districts (*kebeles*), two unions, 16 primary cooperatives and 20 peasant associations (PAs). An initial livelihood zoning exercise established that the project area fell within a single agro-ecological and economic zone (highland mixed crop production and animal-rearing). Non-probability, purposive sampling was used to select a peasant association (PA) for the study that was sufficiently representative of the project area. 17 villages with 453 households from the selected PA were sampled. One village, typical of others in the PA, was selected for a whole-village study (n 34 households). The village had a fairly high proportion of project beneficiaries (n 10), providing an opportunity to compare the initial economic status of beneficiary households with non-beneficiaries. All project participants in the remaining 16 villages were selected for study, giving a total of 59 project beneficiaries in the baseline study. A further 7 non-beneficiary households from the baseline study’s whole-village sample became beneficiaries in the second year.

**Contextual information:** Preliminary data was collected from focus groups and key informants at the study sites, to establish an overview of the local economic and social context. These interviews were repeated for each subsequent round of data collection to update prices and to document any major shocks, adverse weather events or other changes that had taken place. In addition to information on crop and livestock prices and production, employment and market access, data was also collected on...
basic consumer items required to meet local social norms, on primary education expenses and on other investment costs such as fertiliser and veterinary fees.

**Household interviews:** Every available household in the selected village and all available beneficiaries in the selected peasants association were interviewed in the baseline and endline surveys. The IHM interviews are ‘structured conversations’ which progress in a logical sequence, starting with a record of the age and sex of all household members and the land and other productive assets owned or rented. Details of crop and livestock production and use in the last complete agricultural year are recorded, together with off-farm work done by each household member in every month of the study year and the rates of pay (either in cash or kind). The use of wild foods is also documented, together with remittances, pensions, food and cash transfers and any other income. Field workers are trained to cross-question and probe where information is unclear or appears contradictory, encouraging an active dialogue with respondents.

Interview data is checked on return from the field and entered on spreadsheets generated by the open-IHM software. This is uploaded into the project database and preliminary results are reviewed. If any anomalies are identified at this stage (such as unrealistically low or high reported household incomes), interview forms and spreadsheets are checked for transcription errors. If none are identified, the household is revisited the next day, given feedback on the analysis and an explanation is sought through open discussion. Other household members may be brought into the conversation if the initial respondent(s) do not have the necessary information.

**Findings**

This section compares baseline and endline data from the IHM surveys. The baseline year, April 2011 – March 2012, ended before any extra income linked to the malt barley project could appear in the household data. However, project-related income began to come through in the fourth quarter of 2012 (i.e. partway through the second year of the study) for households that were in the original group of beneficiaries, and in the fourth quarter of 2013 (i.e. during the endline study period) for the second group of beneficiaries. Baseline data can therefore be considered to predate the effects of the malt barley project. In contrast, the endline data includes the second malt barley harvest that might have been influenced by the project for the original group of beneficiaries, and the first such harvest for the second group of beneficiaries.

Monitoring data collected in the intervening mini-IHM assessment coincided with a particularly bad agricultural year, when freak high winds prevented much of the barley crop from setting. This resulted in lower than average yields, which affected both beneficiaries and non-beneficiaries. However, IHM analysis indicates that the malt barley incomes of beneficiary households were better in this year than those of the non-beneficiaries. Had this bad year been selected for either the baseline or the endline, results would have looked very different. This highlights the need for caution in attributing change to a specific project intervention, and the limitations of assessing impact over a short project cycle.
In the charts that follow, we only include the 31 households for which we have both baseline and endline data. 84 households were surveyed in the 2012 baseline, and 35 were interviewed in the 2014 mini-IHM follow-up. For 4 households data was incomplete and the discrepancies could not be followed up within the project timeframe.

**Income distribution and standard of living**

In the baseline year, none of the households included fell below the food poverty line (Fig. 1), but one household had a disposable income per adult equivalent of just 31 birr. At PPP rates\(^5\) for the time covered, this household’s DI/AE converts into US$ at an annual $5.85 – or less than $0.02 per day. Several other households were also very close to the food poverty line. 4 households (12.9% of those included) were below the local standard of living threshold (Table 1) during the baseline year, all from the poorest DI/AE quintile.

![Figure 1: Baseline disposable income per adult equivalent, Oromia malt barley project](image)

58% (18 out of 31) of the households included were malt barley project beneficiaries during the baseline year, which ended before the first project-affected malt barley harvest. The beneficiary households were spread across the income distribution, but were more numerous towards the upper end: 11 (79%) of the richest 14 households in the sample were among the original group of beneficiaries, in contrast to a much lower 7 (41%) of the 17 other, poorer households. This might be

\(^5\)The April 2011 – March 2012 purchasing power parity (PPP) exchange rate for these calculations is 5.3025 birr = 1 USD, with a weighted calculation derived from the World Bank’s 2011 and 2012 PPP conversion factors for Ethiopia (available online at [http://data.worldbank.org/indicator/PA.NUS.PPP](http://data.worldbank.org/indicator/PA.NUS.PPP)).
expected, given the requirement for beneficiaries to be debt-free, credit-worthy and in possession of a deposit for seeds. Median baseline disposable income for beneficiaries was 5,895 birr per adult equivalent, with the equivalent figure 3,182 birr per adult equivalent for the non-beneficiaries.

Table 1: Baseline percentages of households above and below the standard of living threshold and beneficiary households, by quintile

<table>
<thead>
<tr>
<th>DI/AE quintile</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (poorest)</td>
<td></td>
</tr>
<tr>
<td>% of HHs below SoLT (no. in parentheses)</td>
<td>57.14% (4/7)</td>
</tr>
<tr>
<td>% of HHs above SoLT (no. in parentheses)</td>
<td>42.86% (3/7)</td>
</tr>
<tr>
<td>% of HHs beneficiaries (no. in parentheses)</td>
<td>28.57% (2/7)</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>% of HHs below SoLT (no. in parentheses)</td>
<td>0.00% (0/6)</td>
</tr>
<tr>
<td>% of HHs above SoLT (no. in parentheses)</td>
<td>100.00% (6/6)</td>
</tr>
<tr>
<td>% of HHs beneficiaries (no. in parentheses)</td>
<td>66.67% (4/6)</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>% of HHs below SoLT (no. in parentheses)</td>
<td>0.00% (0/6)</td>
</tr>
<tr>
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<td>100.00% (6/6)</td>
</tr>
<tr>
<td>% of HHs beneficiaries (no. in parentheses)</td>
<td>50.00% (3/6)</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>% of HHs below SoLT (no. in parentheses)</td>
<td>0.00% (0/6)</td>
</tr>
<tr>
<td>% of HHs above SoLT (no. in parentheses)</td>
<td>100.00% (6/6)</td>
</tr>
<tr>
<td>% of HHs beneficiaries (no. in parentheses)</td>
<td>83.33% (5/6)</td>
</tr>
<tr>
<td>5 (richest)</td>
<td></td>
</tr>
<tr>
<td>% of HHs below SoLT (no. in parentheses)</td>
<td>0.00% (0/6)</td>
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All of the households that fell below the standard of living threshold during the baseline study period were non-beneficiaries at that time, although one (the second-poorest household) became a beneficiary in the second study year. In total, the final sample includes 4 such households that were non-beneficiaries during the baseline year (and are displayed as non-beneficiaries in Fig. 1 and Table 1) but became project beneficiaries in the second year (and are therefore displayed as beneficiaries in Fig. 3 and Table 2). These included two households from the poorest quintile in the baseline year, one household from the second-richest quintile and one from the richest quintile. The median baseline disposable income for these households was 4,093 birr per adult equivalent.

Baseline to endline changes

To compare baseline data (April 2011 – March 2012) with endline data (April 2013 – March 2014), all cash values in the endline data were adjusted (downwards) for inflation, with compound inflation rates derived from the Ethiopian Central Statistics Agency (CSA)’s regional inflation figures for Oromia. To make these regional figures more appropriate for the rural area of Oromia to which the IHM data relates, several categories that were better-suited to an urban inflation index have been

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6 This table only shows the number of households that were selected as beneficiaries during the baseline year.
7 Counting these 4 households as beneficiaries in the baseline (instead of non-beneficiaries) does not affect median disposable income for either the beneficiary group or the non-beneficiary group.
removed from the original inflation baskets\textsuperscript{9}. The remaining categories were then re-weighted in accordance with the most appropriate publically-available CSA weightings\textsuperscript{10}, and standardised to make April 2011 – March 2012 the starting point. From these calculations, rural year-on-year inflation for April 2012 – March 2013 in Oromia was approximately 15.33%, and the equivalent figure for April 2013 – March 2014 was 5.39%. The compound inflation rate for these two years is 21.55%.

**Disposable incomes**

Fig. 2 and Table 2 show the baseline (Y1) and endline (Y3) disposable income distributions and proportions of households above and below the standard of living threshold. Note that while the same 31 households are shown for both years, the income percentile and quintile position of individual households varies between the years. Fig. 2 and Table 2 therefore show changes at an aggregate level within the sample, rather than an individual household level – data showing the changes to disposable income of individual households is presented later, in Fig. 3.

Even after being adjusted downwards to account for inflation between the baseline and endline years, disposable incomes were slightly higher in the third, endline year across most of the income distribution (Fig. 2) and the median household change in disposable income per AE was an increase of 481 birr. There was also one household fewer below the standard of living threshold in the third year (Table 2).

In terms of the distribution of beneficiary households (counting both first- and second-year beneficiaries as beneficiaries in Y1 and Y3), in the endline year there were slightly fewer beneficiaries in quintile 4 than in the baseline – with one more beneficiary household in the richest quintile, and two more in the middle quintile.

\textsuperscript{9} For the weighting categories in use from December 2006 – December 2011, ‘Beverages’, ‘Cigarettes and Tobacco’, and ‘Furniture, Furnishing, Household Equipment and Operations’ have been excluded. For the weighting categories in use since January 2012, ‘Alcoholic Beverages and Tobacco’, ‘Housing, Water, Electricity, Gas and Other Fuels’, ‘Furnishings, Household Equipment and Routine Maintenance of the House’, ‘Recreation and Culture’ and ‘Restaurants and Hotels’ have been excluded.


Figure 2: Baseline and endline disposable income distributions

Table 2: Baseline and endline percentages of households above and below the standard of living threshold and beneficiary households, by quintile

<table>
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</tr>
</tbody>
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At an individual household level, there were substantial fluctuations in disposable income for both beneficiary and non-beneficiary households (Fig. 3). Exactly half (11 out of 22) of the beneficiary households had increases in disposable income between the baseline and endline years, while the

11 Unlike Table 1, households are shown as beneficiaries in both ‘Y1’ and ‘Y3’ here if they were selected as beneficiaries in either the baseline year or the second study year.
other half experienced decreases. The median change in disposable income per AE for beneficiary households was an increase of 105 birr, considerably less than the overall median (481 birr). Meanwhile, 6 of the 9 non-beneficiary households saw their disposable incomes increase, with a median DI/AE change of 1,564 birr per AE.

Despite these many fluctuations in disposable income, the only movement around the food poverty line was that of one beneficiary household which narrowly fell below the food poverty line and thus became unable to meet its food energy needs in the endline third year. This household was the second-poorest overall in the baseline year, and one of the households to become a beneficiary in the mid-year of the study. No households that were above the standard of living threshold in the baseline year fell below it in the endline year, but one (non-beneficiary) household moved above the threshold.

**Project-related income sources**

Despite the beneficiary households among the sample being less likely to experience substantial increases in disposable incomes than non-beneficiary households (in the context of overall disposable income increases), beneficiary households did gain both more cash and more food income from malt barley on average in both the baseline and endline years than non-beneficiary

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12 Beneficiary households indicated by a ‘Ben.’ label on the x axis. Again, as in Table 2 (and unlike Fig. 1), households are shown here as beneficiaries if they were selected as beneficiaries in either the baseline year or the second study year.
households. In both years, beneficiary households were also slightly more likely to sell part of their malt barley crop and slightly less likely to consume it.

The baseline to endline changes for both groups were relatively similar, however, and the case could be made that non-beneficiaries' malt barley incomes improved more than those of the beneficiaries: non-beneficiary households had smaller reductions in food income, greater average increases in cash income (in relative terms), and no households with decreased cash incomes from malt barley.

The proportion of beneficiary households consuming malt barley increased by 4 households, from 73% (16 out of 22) in the baseline year to 91% (20 out of 22) in the endline. This was accompanied by an almost halving of median 'raw\textsuperscript{13} malt barley food income from 2,161,125 kcal to 1,101,750 kcal, and there were similar reductions in the lowest and highest malt barley food incomes of beneficiary households. However, despite decreasing for 10 beneficiaries, food incomes from malt barley actually increased for 10 other beneficiaries (including the 4 households newly consuming own-produced malt barley), although the median decrease (-1,906,875 kcal) was larger than the median increase (1,356,000 kcal).

The proportion of non-beneficiary households consuming malt barley also increased, from 89% (8 out of 9) to 100% (9 out of 9). However, their median food income from malt barley also fell – from 1,695,000 kcal to 1,017,000 kcal. For the dataset as a whole (beneficiaries and non-beneficiaries), the main difference in malt barley food income changes across the baseline disposable income distribution was that the biggest decreases generally came among the richer households. These households were retaining less of the malt barley they produced for their own consumption.

For cash income, all beneficiary households (22 out of 22) sold malt barley during the endline year, up from 77% (17 out of 22) in the baseline, and the beneficiaries' median cash income from malt barley also rose, from 9,800 birr to 11,806 birr. There were increases (median 8,210 birr) in malt barley cash income for 16 beneficiary households, and decreases (median -3,915 birr) for 6 beneficiaries, with no strong patterns across the baseline income distribution other than fewer decreases in cash income among poorer households.

Again, the non-beneficiaries' changes in malt barley cash incomes largely mirrored those of the beneficiaries. The proportion of non-beneficiary households selling malt barley increased from 67% (6 out of 9) in the baseline to 89% (8 out of 9) in the endline, and non-beneficiaries' median malt barley cash income rose from 4,100 birr to 5,780 birr – a slightly lower absolute increase than the beneficiaries, but at 41% (rather than 20%), twice as large in relative terms. Unlike the beneficiary households, no non-beneficiary households had any decreases in cash income, while 8 non-beneficiaries' cash incomes increased by a median 2,925 birr.

Fig. 4 shows the effects on beneficiary households’ disposable incomes of their changes in malt barley food and cash incomes, with the additional caveat here that it is possible when showing

\textsuperscript{13} 'Raw' in the sense of being the actual income generated by the household, before standardisation (per adult equivalent) for household size.
results standardised for household size that – for example – an apparent decrease in income could actually be an increase in ‘raw’ income, outweighed by a more significant increase in the household’s food energy requirements\textsuperscript{14}. However, the 6 beneficiary households whose changes in malt barley income lowered their disposable income here (as indicated by green bars below the food poverty line at ‘0’ on the y axis) were also the 6 beneficiary households with decreased malt barley cash incomes; the 16 beneficiary households whose changes in malt barley income increased their disposable income were also the 16 beneficiary households with increased malt barley cash incomes. Unlike the malt barley cash income changes, there was no consistent pattern between changes in malt barley food income and the effect on disposable income of changes in overall malt barley income (combining food and cash).

Figure 4: Effects of ‘project-related’ income changes on beneficiary households’ DI/AE, baseline to endline\textsuperscript{15}

For the 16 beneficiary households (73%) whose disposable incomes were boosted by changes in their malt barley incomes, the median increase in disposable income was 1,958 birr per adult equivalent, while the median decrease was -1,019 birr per AE for the 6 beneficiaries (27%) whose disposable incomes were brought down by their changes in malt barley income. From all 22 beneficiary households, the overall median change to disposable income that can be attributed to changes in malt barley income was 961 birr per AE.

\textsuperscript{14} The overall value of the income source to the household would still have decreased, however, at least in terms of the proportion of household food energy needs that it provided.

\textsuperscript{15} Beneficiary households indicated by a ‘Ben.’ label on the x axis. Also note that while other charts in this paper are displayed in order of baseline DI/AE, this chart is displayed in order of endline DI/AE, to better demonstrate the impacts of changes in project-related income sources.
These quantified changes in disposable income cannot be attributed with total confidence to the impacts of the project, given the similarities in changes in malt barley incomes between the beneficiaries and non-beneficiaries. However, spillover effects from the project may account for some of the improvements in non-beneficiary malt barley income. This would require further investigation.

**Other income sources**

The attribution of an increase or decline in income to a specific project intervention – in this case malt barley seeds, training and market linkages – needs to be treated with caution. Households in the study community had many different income sources. Moreover, the indirect impacts of the project (for example the displacement of other activities and re-allocation of labour, land, seeds, fertiliser, etc.) and the contexts in which activities take place, including natural/environmental, socio-political and economic factors, all contribute as ‘drivers of change’ at household level.

IHM data analysis shows that malt barley incomes were less important to the overall incomes of the beneficiary households, in comparison to the non-beneficiary households. Malt barley accounted for a median 37% and 28% of the total food income of beneficiary households in the baseline and endline years respectively, compared with a median 52% and 43% of non-beneficiary households’ total food income; food income from malt barley accounted for 9 percentage points less of both groups’ median total food incomes in the endline year. Among beneficiary households, the proportion of total cash income provided by malt barley rose from a median 27% in the baseline year to 34% in the endline. This was far less than the increase among non-beneficiaries, where it rose from 37% to 63% of total cash income.

These differences reflect the income distribution in our sample: there are more beneficiaries towards the better-off end of this distribution in both the baseline and endline years, and we know from the breakdown of cash income that better-off households were gaining more from employment and livestock (as well as from crop income) than other households. Fig. 5 gives an example of the level of granularity provided in IHM analysis, with details that can be used to explore trends and drivers of change over time at household level.
Figure 5: Disaggregated sources of cash income, malt barley beneficiary household

The cash income data for this better-off malt barley beneficiary household shows a large increase in malt barley cash income and some diversification in vegetable income – with reduced cabbage sales, but increased bean sales and peas as a new cash income source. The household continued its livestock trade but had reduced cash income from this and its own livestock products, while they increased their income from brewing areke but no longer generated income from renting out a house or brewing talla.

Conclusions

Micro-level household changes can be linked to changes in the wider economy. This project has capitalised on the local brewing industry’s growing demand for malt barley and the proximity of one of Ethiopia’s largest breweries, successfully integrating smallholder producers into the commercial market. However, poorer households with less access to land cannot benefit from this project in the same way as better-off households. In the whole-village baseline study, the poorest quintile’s median landholdings – 0.75 hectares – are less than half the 1.82 hectares of the richest two quintiles\(^{16}\). Thus, while the project’s efforts to widen participation through passing on quality seeds are useful for some, it does not address an underlying problem affecting many – particularly younger – households.

\(^{16}\) As well as having a low median landholding, the poorest quintile contained the only fully landless household. Unlike the other calculations in this report, these calculations (and their quintile boundaries) include households that were not available for interview in the endline study. Instead, the households excluded here are several whole-village study baseline households with incomplete data, and all households from outside of the village selected for the whole-village study. The medians exclude 0s.
The IHM provides a wealth of information on productive assets and current livelihood strategies that could be used by government and other agencies to develop ‘smarter’ social protection and targeted interventions – for example, supporting poorer households with less land to supply the increasing local demand for vegetables. This would allow more households to participate in the growing market economy and reduce welfare and social protection needs in the longer term. In developing these strategies to raise living standards and improve economic security, information from the QUIP transcripts provides important complementary insights into the priorities and perceptions that drive individual and family decisions.