



## INVESTIGATING SUSTAINED POVERTY ESCAPES: A ‘HOW TO’ METHODOLOGICAL NOTE FOR RESEARCH INTO POVERTY DYNAMICS

### I. INTRODUCTION

Poverty is a dynamic phenomenon; while some people remain in poverty for long periods of time, over the same period others may escape poverty, others fall into poverty and yet others escape poverty and fall back into it. An understanding of the nature of poverty trajectories is important as different trajectories require different programmatic responses; in addition, if poverty reduction efforts will ever be successful in the long term, escapes from poverty must be sustained over time. Box 1 gives more information about two of these trajectories and how they relate to USAID’s resilience agenda<sup>1</sup>.

#### **BOX 1: IMPOVERISHMENT AND TRANSITORY POVERTY ESCAPES**

**Impoverishment** refers to the process whereby a poor person or household becomes poorer, or where someone who is non-poor slips into poverty. **Transitory poverty escapes** refer to individuals or households that used to live in poverty, succeeded in escaping poverty, and then subsequently fell back into poverty i.e. they became re-impooverished. Households are considered to make a **sustained poverty escape** if they are able to escape poverty and remain out of it over the medium-term (e.g. at least for five years, although the time period applied may vary according to available data). Other poverty trajectories, that are not discussed in detail in this brief, include the **chronic poor**, who remain living in poverty at all points in time and **churners**, who fluctuate at around the poverty line over time.

For the purposes of this work, we view **resilience** as a set of capacities enabling households to remain out of poverty over the long term, even in the face of shocks and stresses. In other words, the capacity to be resilient means an individual or household is ultimately able to avoid becoming impoverished or experiencing a transitory poverty escape.

**The purpose of this note is to introduce a methodology for investigating the extent of impoverishment and transitory poverty escapes, as well as the factors that help protect against impoverishment and support sustained poverty escapes.** It details the four basic elements needed in order to conduct this exercise (Section II), six steps of the actual research process (Section III), and some cautionary notes on the limitations inherent in this type of analysis (Section IV).

This methodology uses **mixed methods research approaches** (see Box 2<sup>2</sup>). Specifically, it combines:

- Analysis of **household panel data** with at least three waves (i.e. surveys which return to the same households at least at three points in time<sup>3</sup>).
- The collection of **qualitative life histories** with households on different poverty trajectories. In particular, with those which experienced a transitory escape and those which have seen a sustained escape from poverty.

<sup>1</sup> USAID (2012) defines resilience as the ability of people, households, communities, systems and countries to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth.

<sup>2</sup> Also see Addison, T.; Kanbur, R. and Hulme, D. (2008) Poverty dynamics: Measurement and understanding from an interdisciplinary perspective. BWPI Working Paper 19. Manchester: Brooks World Poverty Institute and Shaffer, P. (2012) Ten years of ‘Q squared’: Implications for understanding and explaining poverty. *World Development* 45, 269-285 for more information on the value of using mixed-methods approaches for research into poverty dynamics.

<sup>3</sup> Impoverishment can also be examined with two wave panel data.

This approach was undertaken in [Bangladesh](#), [Ethiopia](#) and [Uganda](#)<sup>4</sup> during the course of 2016 as part of research USAID conducted into transitory escapes and resilience, through the Leveraging Economic Opportunities<sup>5</sup> (LEO) activity. A [synthesis of findings](#)<sup>6</sup> from across these cases is also available.

## **BOX 2: THE ADVANTAGES OF USING MIXED METHODS RESEARCH FOR INVESTIGATING POVERTY DYNAMICS**

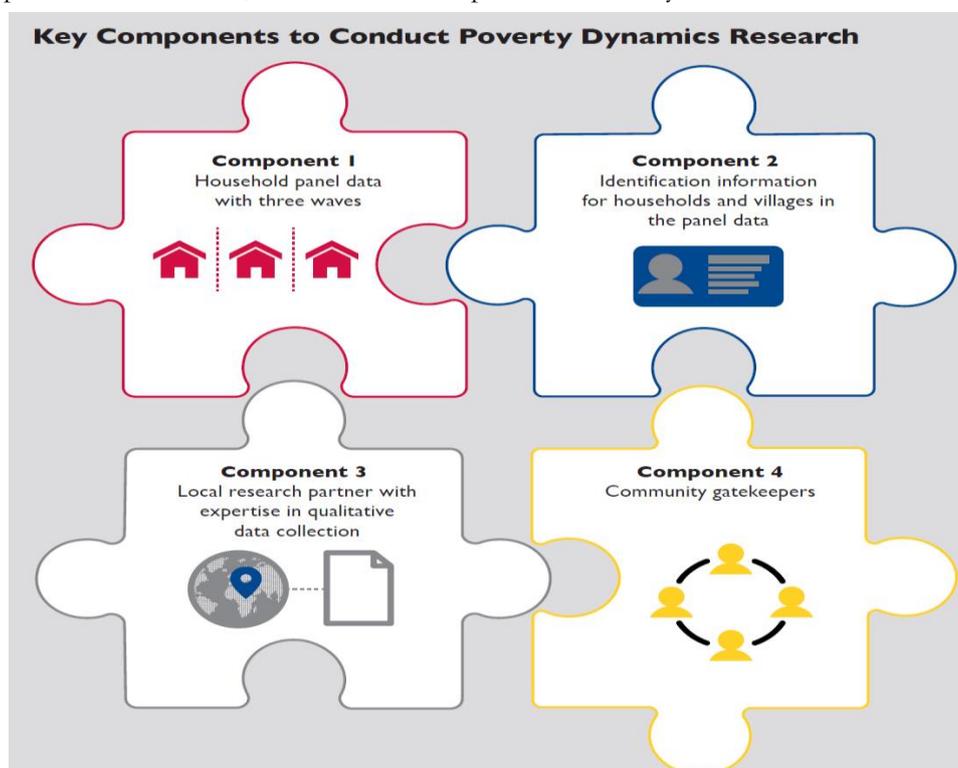
Quantitative research methods, and in particular the analysis of large-scale household panel survey data, can reveal important information about the *extent* of different poverty trajectories. It can also provide insights into the factors (e.g. involvement in the non-farm economy; ownership of livestock) associated with those trajectories as well as an indication of which combination of factors is important.

What household survey analysis cannot tell us is *why* particular factors, or combination of factors, are important or the multi-dimensional causes, processes and pathways of poverty escapes and descents. This information can be gained from in-depth qualitative investigation, including through life histories, which also reveal participants' own perceptions and interpretations of their poverty trajectories. Qualitative investigation also enables greater understanding of the role of contextual factors in poverty trajectories.

Combining quantitative household panel data analysis with qualitative life history collection therefore brings together the strengths of these two research traditions, enabling a more comprehensive understanding of the extent and drivers of poverty trajectories.

## **II. FOUR NECESSARY COMPONENTS TO CONDUCT THIS RESEARCH**

As the graphic below illustrates, there are four components necessary to conduct this research.



<sup>4</sup> For Bangladesh: <https://www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-rural-bangladesh>; For Ethiopia: [www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-rural-ethiopia](https://www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-rural-ethiopia). For Uganda: [www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-uganda](https://www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-uganda).

<sup>5</sup> For more information, see [www.acdivoca.org/leo](http://www.acdivoca.org/leo).

<sup>6</sup> [www.microlinks.org/library/resilience-and-sustained-escapes-poverty-highlights-research-bangladesh-ethiopia-and-uganda](https://www.microlinks.org/library/resilience-and-sustained-escapes-poverty-highlights-research-bangladesh-ethiopia-and-uganda)

## 1. Household panel data with three waves

Panel datasets are those which observe the same cases, such as households, over multiple periods of time. Unfortunately, only a few developing countries have such datasets. Moreover, many of these datasets cover only rural areas, whereas it is preferable that the data is **nationally representative** so that results may be generalizable to the population at large.

In assessing transitory and sustained escapes specifically, there is an additional requirement that the longitudinal data span at least **three waves**. This is because two-wave data can indicate whether a household was poor in one period and subsequently non-poor, but reveals no information about the wealth of the household after their escape from poverty. It could be that the household has remained non-poor at a later third stage (which we identify as a sustained escape from poverty), or that they have fallen back into poverty (a term we denote as a transitory poverty escape). Three-wave panel data allows the researcher to examine the third-stage wellbeing and so determine these longer term poverty trajectories of households.

In addition to three-wave panel data, a **longer time period between waves** (anything over a year) is preferable to shorter year-after-year waves. As there is not a steadfast rule of thumb of the time period appropriate between waves, researchers are advised to use their judgment. Long timespans allow researchers to assess whether a poverty escape is sustained over a considerable period of time, and ensure that identification of chronically poor or transitory escape households, for example, is not just a reflection of time of data collection. Box 3 highlights some considerations researchers need to be well-aware of in analysing panel data and presenting findings<sup>7</sup>.

### **BOX 3: CONSIDERATIONS WHEN USING MULTIPLE WAVES OF PANEL DATA**

In utilising panel data, potential issues may be encountered. Some are listed below:

- **Attrition:** If members of a panel drop out of the study, the sample may no longer be representative of the original population. This is only the case *if* the “probability of attrition is systematically related to certain household or community characteristics” (Baulch, 2011).
- **Small sample sizes:** Linked to the issue of attrition, is the resulting small sample sizes that may emerge in panel datasets. Moreover, when examining certain poverty trajectories such as transitory escapes (Poor (P) in Wave 1, Non-Poor (N) in Wave 2, and P in Wave 3) or sustained escapes (N-P-P), analysis is effectively conducted on these subsamples of interest as opposed to the entire population at large. With small sample sizes, results may be less generalizable to the population at large. Smaller samples also come with a larger standard error and variability, which in turn could make it less likely that results are statistically significant.
- **Composition of households:** As households continue to be surveyed over time in panel waves, the sample interviewed become older and may be less representative of the original population. In addition, households may fragment due to factors such as marriage or migration, and in many instances these split households may be costly to track. Often, methodological documents accompanying the datasets provide information on how to deal with split (or merged) households; these may suggest for example restricting analysis to the household with the largest number of original members or wherein the original household head is still present. In any instance, as time goes on and the panel’s representativeness declines, the only solution may be to create a new panel.

<sup>7</sup> For more information, see Baulch, B. (2011). “Why Poverty Persists: Poverty Dynamics in Asia and Africa”. Edited by Bob Baulch. Cheltenham, UK: Edward Elgar.

## **2. Access to the household identifiers for households included in the panel survey**

It is ideal to have access to the household identifiers<sup>8</sup> for households surveyed so that life histories can be conducted with those same households identified as ‘transitory escapers’ or ‘sustained escapers’ during the panel data analysis. These can sometimes be obtained from the organisation that funded or undertook the data collection. Partnering with the organisation which undertook the panel survey can increase the likelihood of being able to access some household identifiers. However, if the panel is on-going it is unlikely to be possible to identify specific households in the survey given the possibilities of this research influencing household responses in future waves. There are also issues of confidentiality that mean that often the household identifiers are not released. If this is the case, we introduce an alternative approach below for identifying households for life history collection.

## **3. A local research partner with experience at qualitative data collection**

This is easy to overlook, but vital. The collection of life histories requires relatively senior qualitative researchers. Allowing time for training and analysis is also important. The collection of qualitative data is a very different skill to survey data collection.

## **4. Community gatekeepers**

While not essential, it is helpful to have existing links with the communities in which qualitative research will take place in order to speed-up setting-up fieldwork. However, this also comes with implications e.g. being associated with certain development programmes, making it even more important clearly to explain the purpose of the fieldwork from the outset.

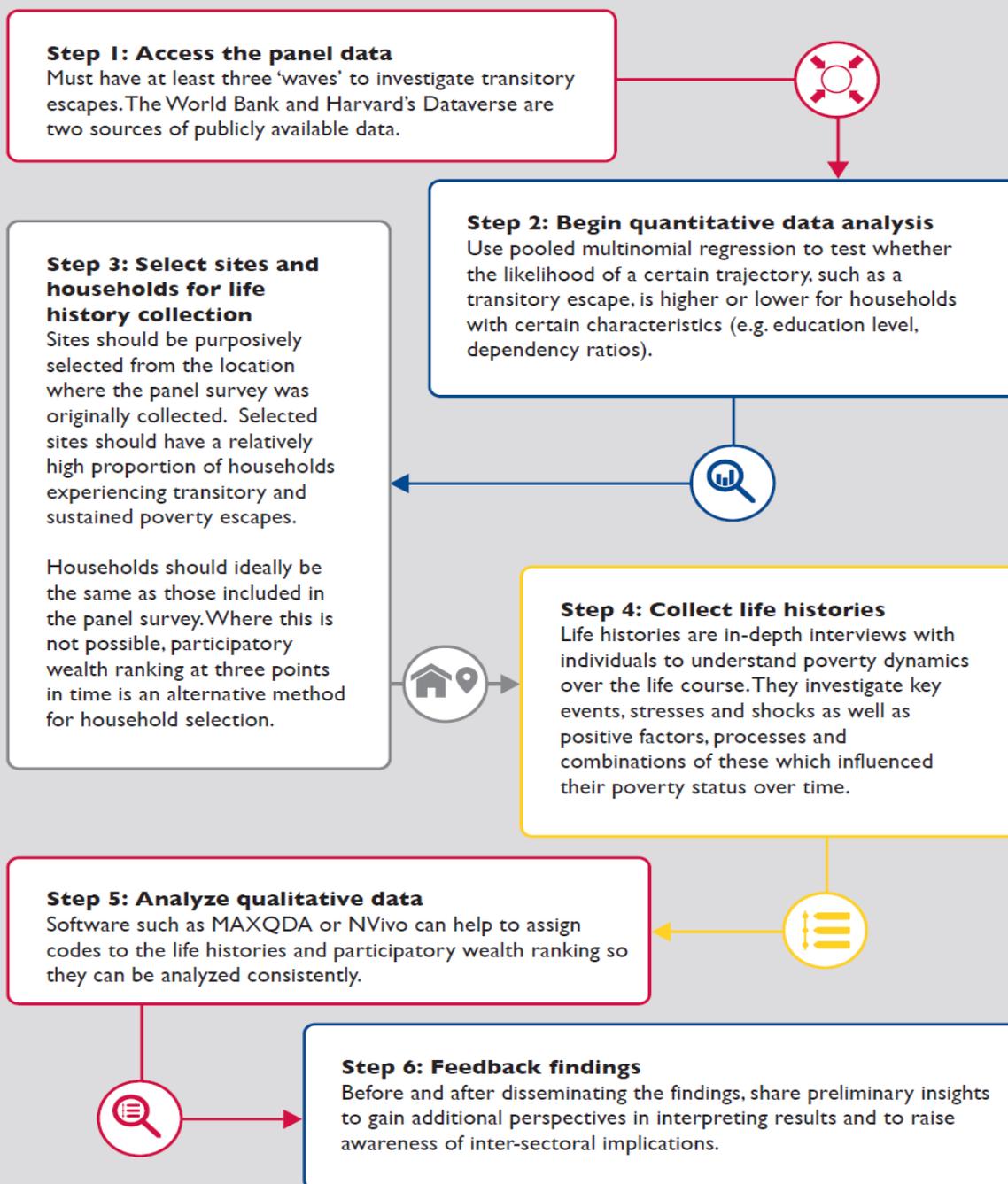
# **III. THE PROCESS**

This section discusses seven key steps to conduct mixed methods research into poverty dynamics. The graphic on the following page presents a snapshot of these steps, which are then further discussed.

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<sup>8</sup> Publicly available datasets do not enable identification of the individuals and households visited; rather assigning anonymous, unique IDs to individuals and households. Being able to access household identifiers means that you have the information to enable you to revisit that particular household e.g. household head name and spouse name, in addition to village name. In some surveys GPS information for each household is available.

## Poverty Dynamics Research: Highlights of the Methodological Process



## STEP 1: Accessing data

Many panel datasets are publicly available to download.<sup>9</sup> These may be accessed through various online repositories (e.g. the [World Bank](#), [Harvard's Dataverse](#), to name a few<sup>10</sup>). Others require a one-time fee, while some are commissioned directly to respond to a certain research or policy question and may not be available for public consumption. In these latter instances, it may prove useful to email the producers of the questionnaires or researchers who have used the panel data, as they may have knowledge on and facilitate your access to the dataset.

## STEP 2: Quantitative data analysis approach

**Regression methods:** Pooled multinomial logit regression is an effective method by which to assess the drivers of transitory escapes, impoverishment, and sustained poverty escapes. These regressions allow us to test whether the likelihood of a certain trajectory, such as a transitory escape, is higher or lower for households with certain characteristics in comparison to households with different characteristics. For instance, whether household dependency ratios or the level of education of the household head make transitory poverty escapes more likely than sustained escapes.

Pooling the data is a way in which to deal with small sample sizes and also examine the effect of variables across years in generating certain poverty trajectories. Pooling the data takes  $N$  households over  $T$  years and combines these variables together into  $N*T$  observations and so providing a larger sample size. It is true that pooling data does not remove endogenous household-specific characteristics, or allow investigation into changes within households over time. However, pooled models are increasingly popular today. They help overcome the “small  $N$ ” problem, as observations from all waves are combined, which is especially valid when an imbalance emerges from investigating a variety of predictors<sup>11</sup>. Moreover, they allow investigation into variables that may not change over time.

Beyond the primary analytical model mentioned above, it is recommended that additional quantitative analysis be undertaken to complement the findings. Some suggestions are listed below:

- **Interactions:** Results can be disaggregated by gender of the household head, region of residence<sup>12</sup>, and other variables relevant according to country contexts. If regressions using these subgroups may not be feasible due to small sample sizes, interaction effects<sup>13</sup> are also worth examining. Interaction terms are used when the estimated impact of a predictor variable on the outcome variable depends on a third variable, thus allowing for additional hypotheses to be tested.
- **Poverty band:** Monetary measures of poverty may be subject to measurement error, which could in turn result in misclassifications of poor and non-poor households and of poverty transitions. To ensure regressions yield valid estimates, researchers may consider using a poverty band on either side of the poverty line around which poverty status is defined (Baulch, 2016, internal document). In our case studies, this was set at 5% above and below the national poverty lines. Practically, this means that for a household to be classified as a sustained poverty escaper in a three-wave panel, it would need to move from a level of consumption below this poverty band in wave 1, to a level of consumption above this poverty band in wave 2 and to remain above this poverty band in wave 3.

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<sup>9</sup> For a list of panel data in developing and transition countries, visit <http://www.chronicpoverty.org/resources/2014/7/1/panel-data>.

<sup>10</sup> <http://iresearch.worldbank.org/lsmssurveyFinder.htm> and <https://dataverse.harvard.edu/>

<sup>11</sup> See Schmidt M.G. (1997). Determinants of Social Expenditure in Liberal Democracies. *Acta Politica* 32(2): 153-173 and Scott, L.; Diwakar, V. and Okech, M. (2016). Ensuring Escapes from Poverty are Sustained in Uganda. LEO Report Number 27.

<sup>12</sup> For an example of disaggregation by household head and region or residence, see discussion in Scott, L.; Diwakar, V. and Okech, M. (2016). Ensuring Escapes from Poverty are Sustained in Uganda. LEO Report Number 27.

<sup>13</sup> For more on interaction effects, please refer to the Ethiopia and Bangladesh case studies, at [www.microlinks.org/leo](http://www.microlinks.org/leo).

- **Poverty lines:** Where there is a **lower and upper poverty line**, depth of poverty could be examined more substantively as these pose different policy implications for households (Scott and Diwakar, 2016). It may also prove useful to consult literature suggesting alternative poverty lines. For example, in Uganda, there is substantive research into the insecure non-poor, identified as those with expenditures under twice that of the national poverty line. Using this threshold as an “upper” poverty line provides another layer to vulnerability analyses. For instance, it may reveal that those households which have escaped poverty in fact still remain vulnerable to falling back into poverty; in Uganda, for example, analysis of panel data revealed that 82% of households that had transitorily escaped poverty remained insecure non-poor in years when they were not under the poverty line<sup>14</sup>.

Finally, in instances where there exists a large share of poor households across waves, it could also be effective to look at **movements under the poverty line**. This could even be done using fixed effects regressions, which enable an investigation into changes within variables of interest and so enrich the analysis from the pooled regression methods above. Analysis of such movements in rural Ethiopia, home to a large share of impoverished and transitory escapers, revealed that an expansion of the household asset base was associated with expenditure increases below the poverty line, while vulnerable employment and poor family planning were associated with expenditure declines<sup>15</sup>.

### **STEP 3: Site selection for life history collection**

Site selection takes place following initial panel data analysis. The aim is to collect life histories in at least four villages where the panel data was previously collected. These villages are purposively selected on the basis of having a relatively high proportion of households which have experienced transitory and sustained poverty escapes over the period.

### **STEP 4: Household selection for life history collection**

There are two approaches to identifying households which experienced sustained and transitory poverty escapes; (i) through panel data analysis; and (ii) using participatory wealth ranking (PWR; see Box 4. Annex B of the Uganda case study also provides more details). The former has the advantage of maintaining one definition of poverty; a consumption definition. The latter meanwhile, brings-in local understandings of poverty and wealth and adds further insights into the role of particular contextual factors in poverty dynamics. In some contexts, it may be more appropriate to separate focus group discussions into men and women.

#### **BOX 4: USING PARTICIPATORY WEALTH RANKING (PWR) FOR HOUSEHOLD SELECTION**

PWR is an approach often used by researchers and NGOs to assign individuals to wealth categories. Under this work at least one PWR is undertaken in each village, through a focus group discussion (FGD), with roughly 25 participants comprising a cross-section of the village. This work uses pre-existing wealth categorisations and asks FGD participants to assign themselves to a wealth category today; for five years previously and then for ten years previously. This is followed by a group discussion about the reasons for ascents and descents over the period. The exercise takes approximately 2.5 hours and requires at least two facilitators.

<sup>14</sup> Scott, L.; Diwakar, V. and Okech, M. (2016). Ensuring Escapes from Poverty are Sustained in Uganda. LEO Report Number 27.

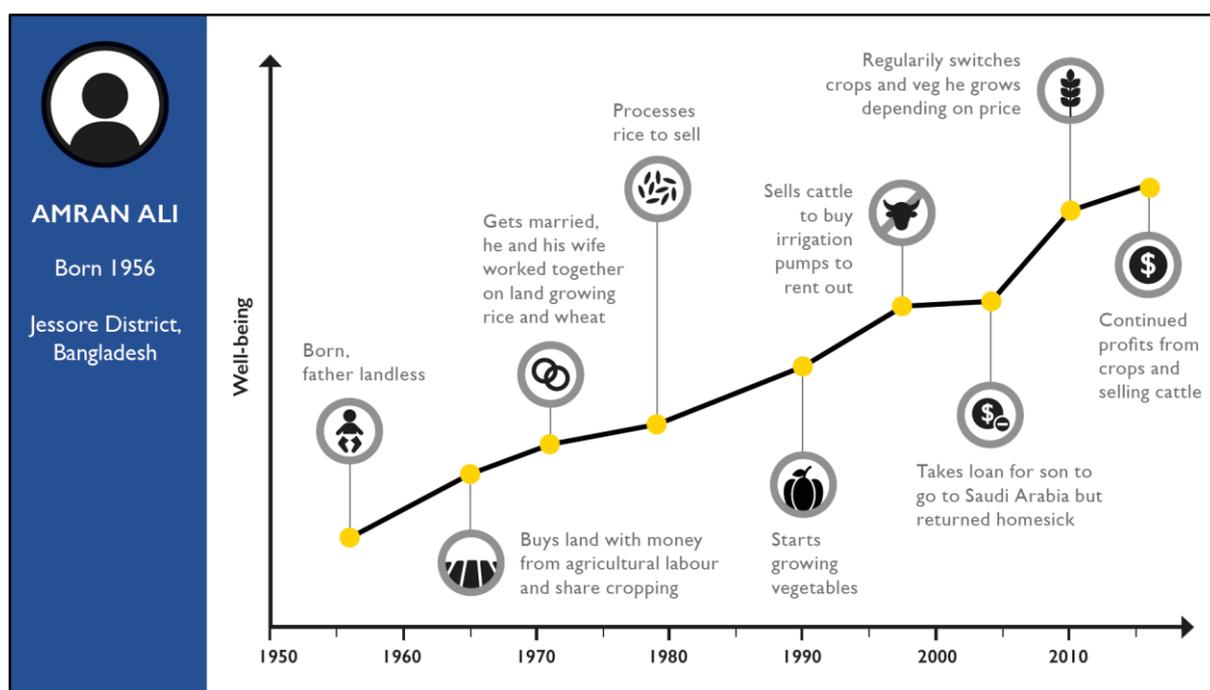
<sup>15</sup> Mariotti, C. and Diwakar, V. (2016) Ensuring Escapes from Poverty are Sustained in Rural Ethiopia. LEO Report Number 36.

## STEP 5: Life history collection

Life histories<sup>16</sup> are in-depth interviews with individuals to understand poverty dynamics over the course of their life; they are sometimes then translated into a graphic (see Figure 1) that visually represents, over time, key events, stresses, shocks, as well as positive factors, processes and combinations of these which influenced their poverty status over their life course. Annex C of the [Uganda case study](#)<sup>17</sup> is a guide to conducting life history interviews for this work. The previous studies in Bangladesh, Ethiopia and Uganda undertook eight life histories in each of four villages. However, there is no ‘golden rule’ as to the number and it is important to remember that qualitative research is not a ‘numbers game’, but rather the objective is to gain an in-depth understanding of the processes behind poverty escapes and descents. If PWR is used to identify the households then life histories should be collected from the same individuals present in the focus group discussion.

In terms of *time and resources*, it is ideal for teams of two to undertake each life history; one person to take notes (in addition to recording the interview, if permission has been granted) and the other to ask the questions. If interview times have been fixed in advance (for instance at the end of the PWR exercise) and distances are not too far, it is possible for a team of two to complete up to four life histories in one day.

Figure 1: A life history diagram for a ‘sustained escaper’



Source: Scott and Divakar (2016)

## STEP 6: Qualitative analysis approach

Following the write-up of the qualitative life histories, these can be uploaded into qualitative data analysis software (such as MAXQDA or NVivo). Useful codes for analysing the drivers of impoverishment and transitory escapes are: resource base; attributes and capacities; activities; managing shocks; and strategies.

<sup>16</sup> For a blog by the author on conducting life histories in practice, see [www.microlinks.org/blog/art-collecting-qualitative-life-histories-and-what-they-can-teach-us-about-resilience](http://www.microlinks.org/blog/art-collecting-qualitative-life-histories-and-what-they-can-teach-us-about-resilience).

<sup>17</sup> <https://www.microlinks.org/library/ensuring-escapes-poverty-are-sustained-uganda>

## **STEP 7: Feeding findings into programming and policy decisions**

In addition to disseminating the final findings, it is important to share preliminary insights from the work in order to gain additional perspectives when interpreting the results and to raise awareness of, and interest in, the inter-sectoral implications of the work. For instance, findings may indicate that certain economic activities (e.g. wage work, entrepreneurship, own-account farming) livelihood strategies (e.g. diversification across sectors, migration), household capacities (e.g. number of children, female empowerment, education of the household head), or overall enabling environments and social protection contexts are more or less associated with sustained poverty escapes. Programmers and policy makers should reflect on the implications of this for partnerships, program components, target sectors/sub-sectors, public-private initiatives, and M&E systems.

**Timeline:** The entire seven-step exercise described above can be undertaken in approximately two to three months. This roughly comprises two weeks for panel data analysis, two weeks for fieldwork preparation, two weeks for life history collection, two weeks for life history analysis and write-up and the remaining period for writing-up the case study and consulting with colleagues about the findings.

## **IV. CAUTION: WHAT NOT TO EXPECT**

Researchers should not expect to arrive at a definite ‘answer’ about the drivers of impoverishment and transitory escapes. There are several potential reasons for this:

- qualitative and quantitative findings can point in different directions and reveal contrasting findings<sup>18</sup>;
- particularly if sample sizes are relatively small, the quantitative panel data analysis may reveal results that are not statistically significant. It is therefore important to view quantitative findings in light of insights from the qualitative life histories; and
- the qualitative research proposed is a small ‘n’ sample, meaning that it is not possible to generalise across the country. Rather, the qualitative findings provide an indication of areas which may be worth further investigation or consideration in programme design and implementation. For instance, for the Bangladesh case study, life history research was undertaken in Jessore district; a district which is not especially disaster-prone. Environmental hazards did not emerge as an important driver of transitory escapes and impoverishment in the qualitative research. This may partly be a function of site selection.

## **V. CONCLUSIONS**

This note outlines one methodological approach for assessing the extent, and drivers of impoverishment and transitory poverty escapes. Research of this nature not only contributes to the growing evidence base around poverty dynamics, including on both sustained and transitory escapes, but also enables the development community to design, tailor and support more effective programs and partnerships that ensure escapes from poverty are sustained over time.

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<sup>18</sup> See Davis, P. and Baulch, B. (2011) Parallel Realities: Exploring poverty dynamics using mixed methods in rural Bangladesh. *Journal of Development Studies* 47(1): 118-142 for further discussion.