

Introduction

With the growth of graduation programmes (integrated livelihood programmes that aim to create sustainable pathways out of extreme and chronic poverty) being implemented worldwide, how we actually measure 'graduation' from extreme poverty is a subject high on the agenda. It is also something we have discussed at great depth within Concern Worldwide, where we are currently implementing seven programmes that adopt a graduation approach¹.

The verb 'to graduate' is commonly associated with the successful completion of a degree, course or training however it is also used to describe a move (upwards) or gradual change. It is the latter that we mean when using the term, to refer to the gradual move of individuals and households out of extreme poverty and into food security and sustainable livelihoods.

The term is used within the social protection discourse to describe the point at which a person is no longer eligible for programme support. There are a number of ways in which this can be measured and these will be described in more detail later in this brief. A popular method is based on participants having met a certain income or asset level threshold. Experience has shown us however, if we are interested in sustainable graduation, that measurement solely based on having met thresholds (even if multi-dimensional) alone is inadequate. This is because monitoring, undertaken 12-months or longer after the period of support ends, reveal that people demonstrate very different trajectories after they have stopped receiving assistance. Therefore, if we are truly interested in creating sustainable pathways out of extreme and chronic poverty then we need to better understand these trajectories and what enabling and constraining factors allow some participants to thrive whilst others continue to struggle.

This guidance note is targeted at programme colleagues responsible for designing, implementing and monitoring graduation programmes and is intended to help when deciding how to measure and communicate graduation rates within your programme.

Background

Concern understands extreme poverty as a lack of, and low return on, basic assets; with two major drivers, a) inequality and b) risk and vulnerability². Concern's Graduation Model³ is a multi-pronged approach intended to address these three dimensions. It can be captured by the following theory of change: *By accurately targeting extremely poor households and delivering a comprehensive package of support including income and asset/capital transfers; facilitating access to basic services including financial services and delivering skills training and mentoring, beneficiaries will have diversified livelihood options and increased resilience⁴ to lifecycle shocks and stresses.*

Concern first adopted the graduation approach in Haiti in 2007, in partnership with Fonkoze⁵. Since then, Concern has implemented graduation programmes in Rwanda, Burundi and Zambia (2012 – 2016) and is currently implementing programmes in Bangladesh, Burundi, Democratic Republic of Congo, Ethiopia, Haiti, Malawi and Rwanda⁶. Due to *How Concern Understands Extreme Poverty* (HCUEP)⁷, programmes are not only designed to move an individual or household above a specific income/asset ownership threshold, nor are they designed to remove people from other forms of social assistance, but rather address the root causes of, and obstacles that prevent, people from escaping extreme poverty.

In terms of monitoring impact, all of Concern's programmes take into account the three dimensions of poverty (assets; risk and vulnerability and inequality) when defining outcome level indicators; although the specific indicators applied are context-specific. Nonetheless, many stakeholders are more interested in graduation rates 'how many people graduated from the programme' or 'how many people graduate from extreme poverty as a result of the programme' which requires a level of aggregation. The interest in aggregated figures can be understood given the investment required (both financially and in terms of human resources) by graduation programmes and the potential impact it could have on social protection caseloads but how we do it appropriately is more complex, as demonstrated later on in this paper.

¹ Concern Worldwide (2017) Concern Worldwide's Graduation Portfolio 2017 – 2021.

² How Concern Understands Extreme Poverty (2010).

³ The Graduation Model, originally developed by BRAC in Bangladesh, has been adapted and promoted by CGAP-Ford Foundation in an effort to understand how safety nets, livelihoods and access to finance can be sequenced to create sustainable pathways out of extreme and chronic poverty. The model has been further adapted and refined by Concern Worldwide for application in Concern country programmes. Concern is currently implementing programmes in Burundi, Rwanda, Zambia and Haiti.

⁴ Concern defines resilience as 'the ability of a country, community or household to anticipate, respond to, cope with, and recover from the effects of shocks, and to adapt to stresses in a timely and effective manner without compromising their long-term prospects of moving out of poverty.'

⁵ The programme in Haiti was one of the original CGAP Ford Foundation-funded pilots of the approach outside Bangladesh.

⁶ As of 16/08/2018.

⁷ How Concern Understands Extreme Poverty (2010).

Table 1⁸ shows graduation rates for a number of programmes. What this data doesn't show is how these figures have been calculated. In most cases, this is based on the number of participants having met a pre-defined threshold on a given indicator or number of indicators. In the BRAC programme in Bangladesh for example, the graduation rate of 95% is based on those participants having met a certain benchmark on 6 out of 9 indicators. Indicators covered: food security, diversified income sources, asset ownership, improved housing and school enrolment⁹.

Table 1: Examples of Graduation Rates

Agency	Country	No. of participants	Dates	Graduation rate (%)
BRAC	Bangladesh	400,000	2000 ongoing	95%
PPAF & Partners	Singh, Pakistan	1,000	2008-2010	79%-88%
SKS NGO	Andhra Pradesh, India	426	2007-2009	97%
Fonkoze	Haiti	150	2006-2008	95%
Trickle Up	West Bengal, India	300	2007-2009	86%
Plan and ODEF	Lempira, Honduras	800	2009-2011	85%
Bandhan	West Bengal, India	300	2006-2008	98%

Defining graduation

There are three different ways in which we could define graduation, as detailed by Samson, M (2015)¹⁰. These include:

- **Programme graduation** which does not depend on a person's poverty status but on there being a finite amount of time a person can remain on a programme. This could be because the programme cycle is finite (2-3 years) or based on participant characteristics (i.e. age) which means, if these characteristics change, they may no longer be eligible. Programme exit is therefore something which is beyond the control of the participant.
- **Social-economic graduation** which is based on socio-economic success and might result in the removal of participants from the programme once they have met a pre-defined threshold – also referred to as **threshold graduation**.
- **Developmental graduation** where programmes offer complementary opportunities for participants alongside or following traditional social assistance including skills training, access to microfinance, livelihood promotion. Whilst programme inputs might only be provided for a finite period of time, impacts are not limited to the programme cycle and can increase over time, even after the end of the period of support. This is sometimes referred to as **sustainable graduation** as it is expected that participants remain self-reliant after exiting the programme because they have built up some resilience against future shocks or continue to have access to services.

Measuring graduation within Concern

Concern's programmes are implemented over a fixed period of time/support therefore, regardless of socio-economic status, participants will be removed from programme support at the end of the programme cycle. However, Concern's model of graduation supports the notion of developmental/sustainable graduation so we would expect impacts to grow or be sustained over time. Thus we are interested in whether or not improvements in well-being are retained (or indeed improve) after the period of support ends and that households are able to cope with moderate shocks without resorting to negative coping strategies. This has specific implications for us when measuring graduation.

Ways in which two of Concern's previous programmes have measured graduation are, as follows:

Chemi Lavi Mayo - Haiti (2007 – 2009)¹¹

In Haiti, participant progress was tracked using a number of indicators drawn from a poverty scorecard (known as the Kat Evalyasyon) based on the Progress out of Poverty Index. The index identified a number of questions about a household's characteristics and asset ownership that are scored to identify the likelihood that the household is living below the poverty line (Grameen Foundation 2015).

Questions addressed participant's housing, asset ownership, household income and more general information. During analysis, anything which would not be expected to change over time were removed. In total, 16 components were analysed: quality of housing, ownership of key assets; children's attendance at school and consumption level indicators. A score was attributed to each, creating a scale that could record a maximum of 42.5 and a minimum score of 0.

⁸ Taken from CGAP – Ford Foundation (2012) Presentation Given at Reaching the Poorest Global Meeting (2012).

⁹ CGAP (2011) Reaching the Poorest: Lessons from the Graduation Model. IN GCAP Focus Note. No. 69. March 2011.

¹⁰ Samson, M. (2015) Exit of Developmental Impact? The Role of 'Graduation' in Social Protection Programmes. IN Graduating From Social Protection Vol. 46, No. 2. March 2015. IDS: Brighton.

¹¹ Implemented in partnership with Fonkoze.

Data from the scorecard was collected at baseline, two years later (at the end of the programme) and almost four years after the end of the programme, in 2012. The scorecard was used predominately to track participant progress during the implementation of the programme and then to see what happened to them subsequently. No thresholds were used.

Results from the programme found:

- **Improvements in housing** including housing structure, number of rooms and sanitation facilities. The mean score at baseline was 3.7 out of a maximum score of 18.5. This improved to 7.2 by the end of the programme in 2009 and continue to improve, with a mean score of 7.8 recorded in 2012.
- **Changes in access to goods** (consumptive and productive). The mean score at baseline was 2.3 out of a possible score of 16. This improved to 5.9 by the end of the programme in 2009 but, by 2012, it had slipped back slightly to 4.1.
- **Changes in household income** (the focus of questions was on sources of income rather than how much). The mean score at baseline was 2.1 out of a possible score of 10. This improved to 3.3 by the end of the programme in 2009 but had slipped back to 2.8 in 2012.
- **Changes in participant status** including whether a participant can read or write, how many people live in the house, how many children the household has, how many children go to school and how many times per week they cook meat in the house. At the start of the programme, the mean score was 3.8 out of a possible score of 13. This had improved to 6.2 by the end of the programme in 2009 though it has slipped back slightly to 5.7 by 2012.

(Pain, C., Vautravers, E. and Descieux, A. 2015)¹²

These results hide the differences in the experience of different participants but further analysis, undertaken by Pain, Vautravers and Descieux (2015)¹³, found that it was possible to group participants into three categories based on their *Kat Evalasyon* score. The first group (31.2%) continued on a positive/upward trajectory after the end of the programme, the second (39%) maintained the same score or have registered a small decline and the third (29.9%) recorded a sizeable decline. The analysis also pointed to certain characteristics which meant that households were more likely to continue on a positive/upward trajectory. These participants were generally older with a smaller number of children under five residing in the household. These results show how important it is for us to understand the different trajectories of participants, not only during but after the period of support ends.

Enhancing the Productive Capacity of Extremely Poor People - Rwanda (2012-2016)

In Rwanda, participant progress was monitored through annual outcome surveys whilst follow-up surveys were conducted to look at the sustainability of changes over time (supported by operational research by the UK's Institute of Development Studies). No thresholds were used initially. Following the final survey Stephen Devereux, of the Centre of Social Protection at IDS, conducted a sensitivity analysis to look at graduation trajectories according to different indicators and based on setting different thresholds.

Three key indicators were selected – deprivation index, levels of asset ownership and hunger gap. All participants had recorded improvements in these indicators at endline compared to baseline however, when thresholds were applied and graduation rates analysed at endline and follow-up, there were variations – not only related to the indicator used but the threshold set.

Findings below are taken from a presentation delivered by Stephen Devereux in 2015¹⁴ and were also published in the final research report summary and briefing paper¹⁵.

¹² Pain, Vautravers, E. and Descieux, A. (2015) Sustaining Graduation: A Review of the CLM Programme in Haiti. IN *IDS Bulletin* Vo. 46, No. 2. March 2015. Institute of Development Studies: Brighton.

¹³ Ibid.

¹⁴ Devereux, S. (2016) 'Sustaining Impacts' Concern Worldwide's Graduation Programme in Rwanda. Presentation. Presented at 'Graduation Model Event'. Old Ship Hotel, Brighton. 25 October 2016.

¹⁵ Devereux, S. and Sabates, R. (2016) Enhancing the Productive Capacity of Extremely Poor People in Rwanda' Final Evaluation Report. Concern Worldwide: Dublin and Devereux, S. (2016) Sustaining Impacts: Concern Worldwide's Graduation Programme in Rwanda. Concern Worldwide: Dublin

Deprivation Index

Figure 1 shows the progress (and graduation rates) using the deprivation index.

The deprivation Index is a proxy for household income and consumption (which are often complex and costly to measure reliably). It was compiled from information on a household's ability to afford enough food, pay for the government health insurance scheme and purchase medicines. Eleven questions were asked in total, a score of 1 was given if a household answered yes to a question whereas a score of 0 was given if a household answered no. The total sum was then divided by the number of questions to give a final score. The higher the final score, the less deprived the household.

The analysis, looked at two different thresholds; a score of 4 on the deprivation index and a score of 5 on the deprivation index.

- **Score of 5.** 4% of participants achieved a score of 5 on this index at baseline, but 87% reached this threshold by 12 months, though this fell back to 70% after 36 months and then 49% after 48 months. Therefore the 'net graduation' rate (the difference in changes since baseline between participants and the control group) was 84 percentage points after 12 months and 49 percentage points after 48 months.
- **Score of 4.** If however, a lower threshold of 4 is set for this index, a greater number of participants can be said to have graduated – 90% at 12 months, 88% at 36 months and 69% at 48 months. From a slightly baseline of 14%. This puts 'net graduation' rates at 81 percentage points after 12 months; 55 after 36 months and 48 percentage points after 48 months respectively.

**It is important to note that the findings from the deprivation index were affected by a policy change which made it a legal requirement for households to subscribe to the national health insurance scheme. Extremely poor households (those in the first and second wealth categories, known locally as Ubudehe categories) were entitled to free health insurance whereas anyone in category three and above were required to meet the cost themselves. The movement of households out of the poorest (first and second) wealth categories was originally an outcome indicator however, this meant that household ability to pay for the government health insurance and therefore, levels of deprivation, was seen to decline as their socio-economic status improved. This is likely to have heavily influenced the trend lines shown in figure 1.*

Productive Asset Ownership

Figure 2 shows the progress (and graduation rates) using levels of productive asset ownership.

The productive asset index was based on ownership of eight different productive assets including, land, livestock, farm tools and bicycles. Once again, the analysis looked at two different thresholds; owning 4 or more productive assets and owning 3 or more productive assets.

- **Owning 4 or more productive assets:** Only 6% of participants owned 4 or more distinct productive assets at baseline. 61% of households had met this threshold after 12-months increasing to 78% after 36-months and 77% after 48-months. The 'net graduation rates' however are significantly

Figure 1: Graduation trajectories by deprivation index

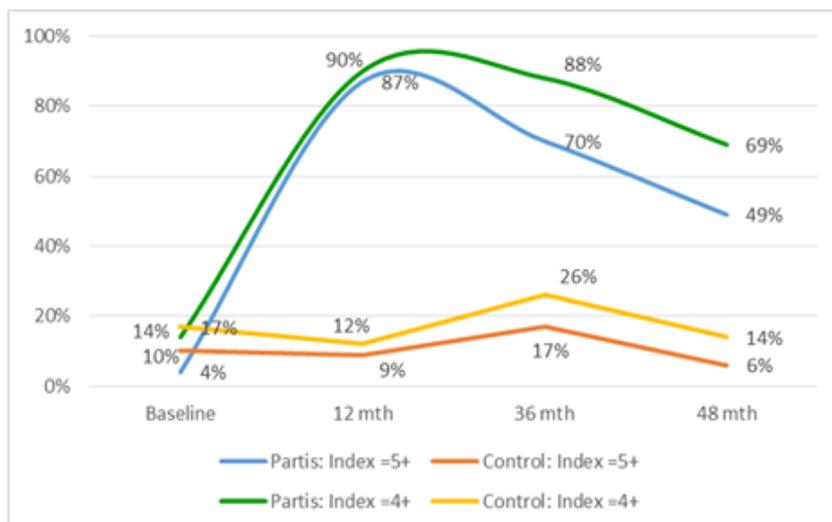
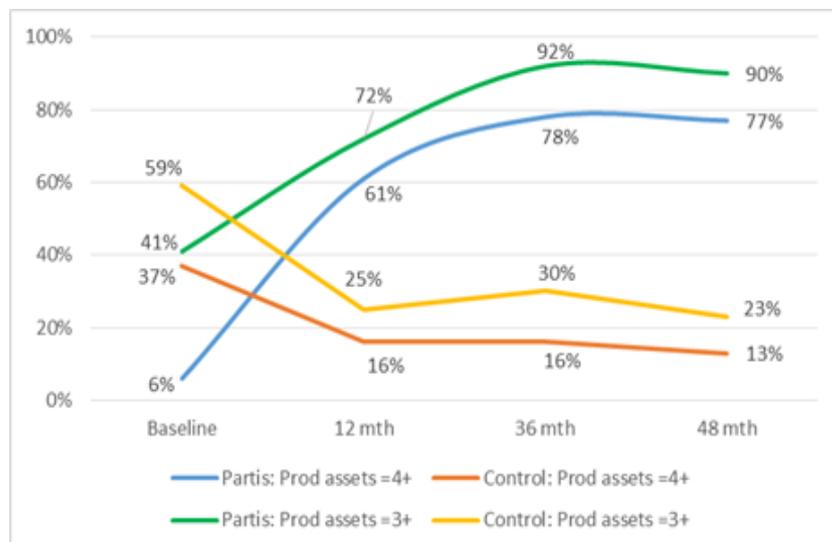


Figure2: Graduation trajectories by productive asset ownership



higher due to the control group having actually lost productive assets over time. Net graduation rates were 76 percentage points after 12 months, 93 percentage points after 36 months and 95 percentage points after 48 months.

- **Owning 3 or more productive assets:** 41% of participants owned 3 or more distinct productive assets at baseline. 72% of households has met this threshold after 12-months; 92% after 36-months and 90% after 48-months. The corresponding 'net graduation rates' were 65 percentage points after 12-months; 80 percentage points after 36-months and 81 percentage points after 48-months.

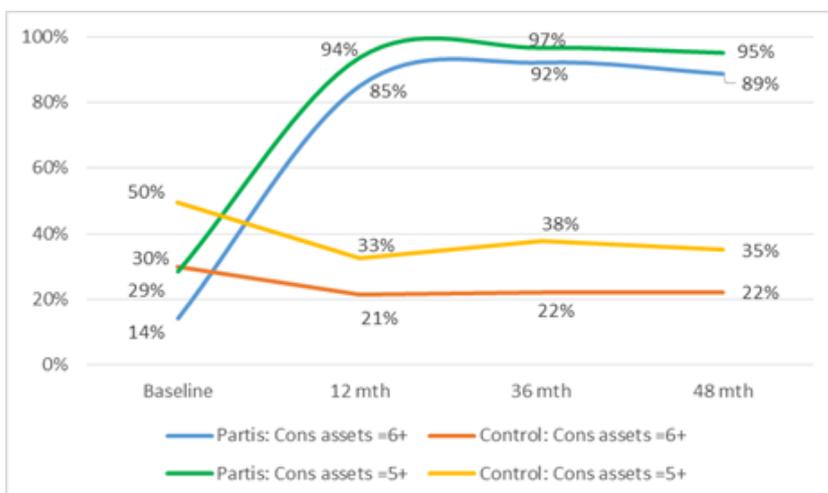
Consumption Asset Ownership

Figure 3 shows the progress (and graduation rates) using levels of consumptive asset ownership.

The consumptive asset ownership index was based on the ownership of a number of consumptive assets which included kitchen utensils, furniture and electronic goods. Once again, the analysis looked at two different thresholds; owning 5 or more consumptive assets and owning 6 or more consumptive assets.

- **Owning 6 or more consumptive assets:** 14% of participants owned 6 or more consumptive assets at baseline. 85% of households met this threshold after 12 months; 92% after 36 months and 89% after 48 months. Once again, the 'net graduation rates' are higher due to the control group having actually lost consumptive assets over time. Net graduation rates were 80 percentage points after 12 months; 86 percentage points after 36 months and 83 percentage points after 48 months.
- **Owning 5 or more consumptive assets:** 50% of participants owned 5 or more consumptive assets at baseline. 94% of households met this threshold after 12 months; 97% after 36 months and 95% after 48 months. Once again the 'net graduation rates' are higher at 81 percentage points after 12 months; 79 percentage points after 36 months and 80 percentage points after 48 months.

Figure 3: Graduation trajectories by consumptive asset ownership



Summary

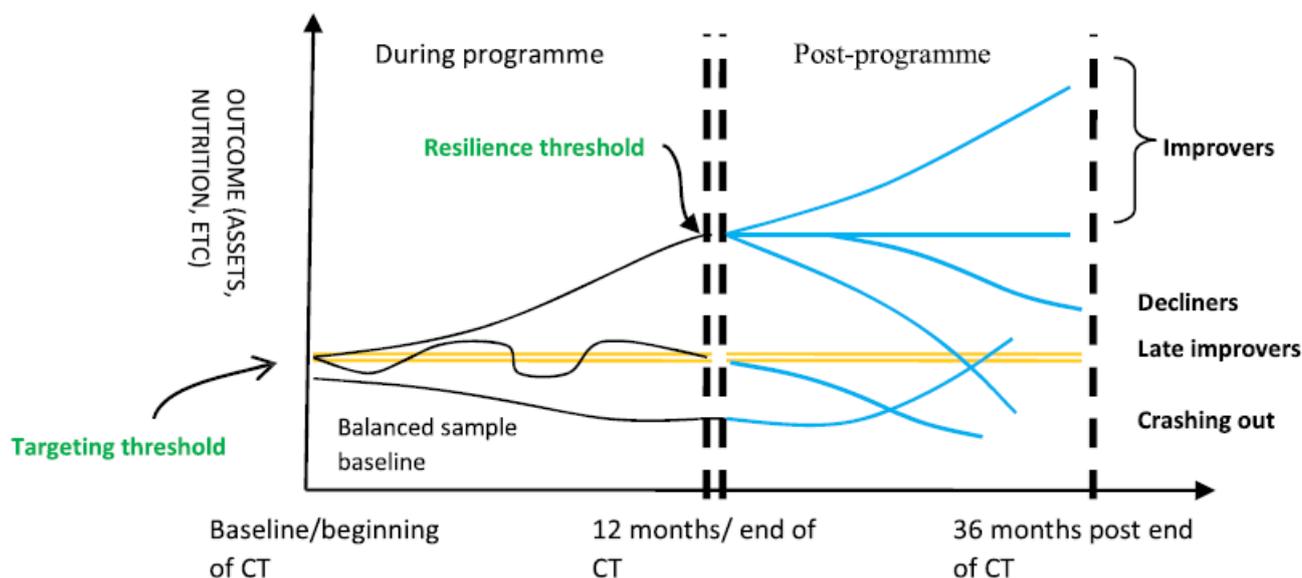
What the sensitivity analysis from Rwanda shows us, in particular, is the potential for **subjectivity in 'graduation rates'** depending on what indicator (sets of indicators) are used and what thresholds are set. But, it also very much depends on **where people start on their journey** (baseline figures). For example, if we look at graduation trajectories in Rwanda using consumption asset ownership and owning 5 or more consumptive assets. We could say that 95% of households sustainably graduated from the programme – based on 95% of households still owning 5 or more consumptive assets 12-months after the end of the programme. This figure however, doesn't take into account that 30% of households owned 5 or more assets at baseline, therefore only 65% of participants actually crossed the threshold during the programme intervention and sustained it following the end of programme support. Similarly, if we go back to the graduation rates presented in table 1. The graduation rate of 95% in Bangladesh is based on those participants having met a certain threshold on 6 out of 9 indicators but what would happen to the graduation rate if we increased or decreased the number of indicators on which participants had to meet the threshold on?

Aside the potential for subjectivity in graduation rates, the sensitivity analysis conducted by Stephen Devereux in Rwanda can also indicate **targeting effectiveness**. For example, if we look at the graduation trajectories from Rwanda using the deprivation index (see figure 1). At baseline, 4% of the participants scored 5 on the deprivation index, whereas 14% scored 4. If our graduation threshold was scoring 4 on the deprivation index then this would suggest that there had been large inclusion errors – that is 14% of participants should not have been on the programme in the first place as they were already above the graduation threshold, whereas a threshold of 5 suggests only 4% were erroneously included.

But ultimately, as mentioned in the introduction, if we are truly interested in creating sustainable pathways out of extreme and chronic poverty and want to ensure that our programmes are fit for purpose then we need to better understand these graduation trajectories and what enabling and constraining factors allow some participants to thrive whilst others continue to struggle. In a recent paper by Sabates-Wheeler, Sabates and Devereux (2018:5) they make the point that '...initial

conditions, household latent capacity to absorb change and external context matter. When we take these factors into account, it is obvious that households will not all follow similar paths, even if this is the assumption and desired outcome.’ They impart that it is these enabling and constraining factors that put households on a specific pathway, and illustrate this visually using the following diagram (see figure 4).

Figure 4: Livelihood trajectories during and post cash-transfer (Sabates-Wheeler et al. 2018)



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In fact, further research is currently being undertaken in Rwanda and Burundi to further explore the divergent trajectories followed by households. The research, also being undertaken by the Institute of Development Studies in Brighton, aims to better understand these enabling and constraining factors¹⁷.

Recommendations

With regards measuring and communicating graduation rates, it is recommended that programme colleagues try to avoid focusing too much on graduation thresholds but rather on the sustainability of changes over time. Particularly given that Concern’s programmes are implemented over a fixed period of time/support and, regardless of progress, participants will only be removed from receiving support at the end of the programme cycle, and no sooner. This would involve planning and budgeting for a follow up survey (using the annual outcome assessment) for a period of time after the end of the programme and, where possible, analysing graduation trajectories so to continue to inform future programming.

It is appreciated however, that being able to communicate graduation rates can be useful for advocacy and communication purposes. Therefore, the simplest way for the programme to measure graduation would be to identify a selection of indicators which are being monitored through the annual outcome assessment and then to set locally appropriate thresholds for each. These thresholds could be the point at which the participant would not have been eligible for the programme (i.e. would mean they would register in the next wealth group category) or slightly higher. Then at each assessment point, it would be possible to communicate the proportion of households/participants who have met that given threshold or met all thresholds.

Whatever methodology is used it needs to be clear and replicable and aim to avoid subjectivity where possible. If the programme does not have a control group it will not be possible to attribute changes to the programme alone (net graduation rate) so this would need to be clarified in any communication. Likewise, where we are communicating graduation rates then we need to be clear about our calculations and any assumptions made, for the reasons set out in the summary.

For more information on this guidance note please contact: Jenny Swatton – Social Protection Adviser, Concern Worldwide (jenny.swatton@concern.net)

¹⁶ Sabates-Wheeler, R., Sabates, R. and Devereux, S. (2018) ‘Enabling Graduation For Whom? Identifying and Explaining Heterogeneity in Livelihood Trajectories Post-Cash Transfer Exposure’ IN *Journal of International Development* DOI: 10.1002/jid.3369

¹⁷ For more information see Concern Worldwide (2018) Overview of Graduation Research in Burundi and Rwanda (2017 – 2021). Concern Worldwide: Dublin.