What we know and don’t know about solutions for poverty eradication: Evidence gap map of productive safety-net interventions (Report)

Martina Vojtkova, Evaluation Specialist, International Initiative for Impact Evaluation (corresponding author)
mvojtkova@3ieimpact.org
0044 (0) 2079588384
3ie
36 Gordon Square
London SE16 6DS
UK

Jennifer Stevenson, Research Associate, International Initiative for Impact Evaluation

Benjamin Verboom, PhD Candidate, University of Oxford

Yashaswini Prasannakumar, Health Research Analyst, Economist Intelligence Unit

Birte Snilstveit, Evaluation Specialist, International Initiative for Impact Evaluation

DRAFT – PLEASE DO NOT CITE OR CIRCULATE WITHOUT EXPRESS PERMISSION OF THE CORRESPONDING AUTHOR

April 2015
International Initiative for Impact Evaluation (3ie)
www.3ieimpact.org
MAIN REPORT

1. Introduction

Background

In 1990, the international community pledged to help eradicate extreme poverty and provide better opportunities to millions of poor people around the world. This global movement against poverty underpinned by the Millennium Development Goals (MDGs) has seen some impressive successes in poverty reduction and human development over the past 25 years (UNDP 2014). The number of people living in extreme poverty fell from 43 per cent in 1990 to 20 per cent in 2010, reaching the first MDG five years early (UN 2013). Despite these recent successes however, an estimated 1.2 billion people around the world still live on less than 1.25 dollars a day (USAID 2013). An even greater number - about 2.2 billion people – live in or near multidimensional poverty, suffering severe deprivations in health, education and standards of living (UNDP 2014). There is also considerable variation in the progress made across countries and regions (UNDP 2014). Estimates indicate that in low income countries, extreme poverty fell by less than a third since 1981 and the number of people living in extreme income poverty increased by more than 100 million (Olinto et al. 2013).

The remaining step of eradicating extreme poverty thus presents an important global challenge. Projections to 2030 range from fewer than 150 million people remaining in extreme poverty to more than 1.2 billion—or between 3% and 18% of projected developing world population (USAID 2013). Going ‘the last mile’ in ending extreme poverty and deprivation thus clearly requires targeted and highly effective solutions. An evidence-based approach to poverty reduction programming can help identify effective programmes and target these to the people who can benefit the most. Given the vast amount of research and evidence in this field, a first crucial step is to identify what we know, and don’t know, about what works to help people sustainably escape extreme poverty and deprivation.

To help decision-makers explore the existing evidence in this field, and identify where more research many be needed, 3ie has worked with the United States Agency for International Development (USAID) to produce an Evidence Gap Map (EGM) of productive safety nets. Productive social safety programmes include livelihood or income generating components to expand market opportunities for the extreme poor. They aim to reduce extreme poverty by a combination of interventions to stabilize consumption, increase and diversify incomes (including through employment assistance), build and protect assets, and improve food security. The EGM consolidates what we know about the effects of these interventions on poverty-related outcomes. It provides a visual overview of the evidence from systematic reviews and impact evaluations mapped into a framework of relevant interventions and outcomes in this sector. Through 3ie’s new interactive platform, the EGM also allows users to explore the evidence base in a particular field, and easily identify studies of interest. The findings of the EGM can be accessed through links to user friendly summaries on the 3ie database.

The purpose of the evidence gap map is to enable policy makers and practitioners to explore the findings and quality of existing evidence on the effects of productive safety nets and facilitate informed judgment and evidence-based decision making in anti-poverty policy development and programming. It also aims to identify evidence gaps where little or no evidence from impact evaluations and systematic reviews is available to help inform a strategic approach to building the evidence base on the effectiveness of productive safety nets for the poor.
Objectives

This report briefly presents the methods used to develop the EGM and provides an overview of the online interactive tool to allow users to understand and use the EGM for decision-making. In addition, it provides a brief overview of the characteristics of the existing impact evaluation and systematic reviews on productive safety nets in low- and middle-income countries and highlights key gaps in the evidence base emerging from the EGM. Finally, it also briefly summarises findings from high quality systematic reviews that can inform the development of effective and timely solutions to help end extreme poverty and deprivation.

2. Methods

Evidence gap maps are built around a two-dimensional framework consisting of the range of interventions (the vertical axis) that have been used to achieve a range of outcomes (the horizontal axis) in the policy areas under consideration. The framework for the EGM of productive safety nets was developed based on a review of the academic and policy literature, and through consultations with policy leads at USAID.

To address the objective of providing access to high quality evidence to inform decision making in the area of productive social safety nets and extreme poverty, the EGM maps out completed systematic reviews assessing the effects of productive safety nets on a range of socio-economic outcomes for the extreme poor. To address the objective of identifying research gaps, the EGM includes completed and ongoing impact evaluations and ongoing systematic reviews of the same. By combining these two maps, the EGM identifies ‘absolute research gaps’ (where no impact evaluations or systematic reviews exist), as well as ‘synthesis gaps’, where opportunities exist for a full systematic synthesis of the existing evidence.

Search strategy

To identify relevant studies, we conducted a targeted search for systematic reviews of productive safety nets in nine academic databases and libraries, and a targeted search for impact evaluations of productive safety nets in four academic databases and nine sources of grey literature, institutional websites and libraries. In addition, we searched the 3ie database of systematic reviews, which covers 14 academic databases and 15 sources of grey literature, institutional websites and libraries, and the 3ie Impact Evaluation register which covers 19 academic databases and journal collections and 26 sources of grey literature, institutional websites and libraries.

Inclusion criteria

Interventions

The EGM includes studies evaluating productive social safety net interventions, defined by USAID as safety net programmes that include livelihood or income generating components to expand market opportunities for the extreme poor and aim to reduce extreme poverty by stabilizing consumption, increasing and diversifying incomes (including through employment assistance), building and protecting assets, and improving food security.

The included interventions were categorised according to the framework developed in collaboration with USAID. Table 1 summarises the intervention categories included in the

---

1 A detailed search strategy with a full list of databases and libraries searched is available upon request.
EGM and lists related interventions that have been excluded from the EGM because they do not meet the definition of a ‘productive safety net’ programme as defined above.2

Table 1: Intervention categories and definitions

<table>
<thead>
<tr>
<th>Sector</th>
<th>Intervention Category</th>
<th>Definition (and examples)</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social protection</td>
<td>Conditional cash transfers</td>
<td>Interventions that provide cash to eligible households (typically means tested) contingent on the household fulfilling certain condition(s) such as regular school attendance of school aged children, if combined with a livelihoods and/or income generating component</td>
<td>Cash transfers without a livelihoods / income-generating component</td>
</tr>
</tbody>
</table>
|                   | Unconditional cash transfers | Interventions that provide cash to eligible households (typically means tested) without any conditions attached, if combined with a livelihoods and/or income generating component | • Disability grants
• Old age pensions
• Non-contributory pensions
Cash transfers without a livelihoods/income-generating component |
|                   | In-kind social transfers | Interventions that provide non-cash goods and services to eligible households, if combined with a livelihoods and/or income generating component                                                                                                           | • School uniform vouchers
• Education for private schools
• Health care vouchers |
|                   | Employment assistance | Interventions providing cash or in-kind support for employment as well as targeted “vocational” training for the unemployed to learn a skill that will increase their employability, if this is provided outside of formal (technical and vocational) education. E.g., Employment guarantee schemes, wage subsidies, cash for work schemes | • Job search assistance
• Job placement programmes
• Formal technical and vocational education |
| Financial services | Microsavings | Interventions that provide (micro) savings services to individuals or groups (including self-help groups)                                                                                                                  | • Guarantee funds
• Credit registries and credit bureaus
• Health insurance |
|                   | Microinsurance | Interventions that provide (micro) insurance services                                                                                                                                                                          |                                                                                           |
|                   | Microcredit and leasing | Interventions that provide (micro) loans or leasing services                                                                                                                                                                      |                                                                                           |

2 Note: We excluded agricultural interventions (such as agricultural input subsidies, agricultural training and extension, agricultural technology and agricultural insurance) because we considered agricultural programmes to be a separate field with a large body of literature, the review of which was beyond the means of the current EGM project.
<table>
<thead>
<tr>
<th>Sector</th>
<th>Intervention Category</th>
<th>Definition (and examples)</th>
<th>Excluded</th>
</tr>
</thead>
</table>
| Land reform            | Land property rights interventions        | Interventions that confer the rights to use, own and/or transfer land, as well as enforce rules and exclude outsiders. E.g. conversion of communal or non-demarcated rural land to freehold title (e.g., land titling), statutory recognition and codification of customary or communal rural land rights | • Justice interventions (e.g., paralegal, outreach, alternative dispute resolution interventions  
  • Enforcement capacity interventions (e.g., training of justice sector actors, digital boundary marking)  
  • Land inheritance reforms  
  • Community-based natural resource management |
| Microenterprise support services | Financial literacy and business training  | Interventions providing entrepreneurship and business skills training, financial literacy training for existing and prospective entrepreneurs                                                                                          | • Life skills training                                                                                                                                       |
|                        | Enterprise development                    | Interventions providing financial and non-financial support for enterprise development. E.g. business advisory / mentoring services (e.g., support in business plan development), information provision and business networking services, cash grants for business start ups | • Management and quality control practices  
  • Technology upgrading  
  • Market development services  
  • Export promotion services  
  • Agricultural extension |
|                        | Support for improved linkages to output markets | Interventions improving linkages / access of (potential) entrepreneurs and micro-enterprises to markets E.g., Access to market information, Accreditation                                                                 |                                                                                                    |
| Collective action facilitation | Group formation for collective action | Interventions supporting the formation of local community groups E.g.: Interventions supporting the formation of local cooperatives or self-help groups                                                                 |                                                                                                    |
| Multiple components      | Multi-component interventions             | Interventions combining multiple productive safety net interventions E.g.: the graduation approach                                                                                                                      |                                                                                                    |

**Outcomes**

To be included, studies had to evaluate the effects of productive safety nets on at least one of the outcomes outlined in Table 2. To avoid omitting relevant outcomes from the EGM framework, we initially included all studies that reported at least one outcome measured at
either individual, household or community level\(^3\). We then subsequently reviewed all outcomes that did not meet the initial outcome inclusion criteria to ensure relevant outcomes were either captured under existing outcome categories or new categories were included in the framework\(^4\). The table below presents a list of outcome categories with definitions that were included in the final EGM.

<table>
<thead>
<tr>
<th>Table 2: Outcome categories and definitions</th>
<th>Definition (and examples)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take-up</td>
<td>Outcomes measuring the share of (targeted) people who have access to and take up the intervention</td>
<td></td>
</tr>
<tr>
<td>Knowledge / skills</td>
<td>Outcomes measuring the extent of intervention-related knowledge / skills gained</td>
<td></td>
</tr>
<tr>
<td>Assets and land</td>
<td>Outcomes measuring the value of individual or household non-monetary assets and the degree and type of access to, or ownership of land</td>
<td>Monetary assets are captured under the income/consumption category</td>
</tr>
<tr>
<td>Employment</td>
<td>Outcomes measuring (the degree of) participation in waged labour or self-employment (including business ownership, and/or the establishment of an enterprise, as proxies for participation in an income-generating activity)</td>
<td>This excludes unwaged labour such as unpaid household/domestic work</td>
</tr>
<tr>
<td>Risk management / resilience / adaptive capacity</td>
<td>Outcomes measuring vulnerability and the preparedness and ability of individuals or households to withstand shocks (such as conflict and instability, economic shocks, adverse weather and climatic catastrophes, disease, disability and/or death of a household member etc.), access to and use of risk-sharing arrangements (e.g., insurance).</td>
<td></td>
</tr>
<tr>
<td>Income / expenditure / savings</td>
<td>Outcomes measuring the amount of individual or household monetary income and expenditure per unit of time and the amount of consumption of goods (excluding food) per unit of time, as well as measures of savings. These include agricultural / microenterprise-related income and expenditure(^5) as well as measures of debt and debt repayment.</td>
<td>Food consumption/ expenditure measures are captured under the food security category. Health expenditure/ investment measures are captured under the Health category. Education expenditures/</td>
</tr>
</tbody>
</table>

\(^3\) Note: We excluded studies reporting exclusively measures at the firm level (such as firm productivity, firm profits, firm sales, employment creation, etc.) as these measures were judged to be too indirect to reliably measure individual and/or household wellbeing.

\(^4\) The resulting changes to the framework were minimal. One note-worthy change was a split of the "non-income deprivation" category into the categories "living standards", "health" and "education". This allowed a more detailed overview of the types of outcomes reported in the included studies as well as the inclusion of health expenditure and education expenditure outcomes in the latter two categories respectively.

\(^5\) Note, even though we did not include agricultural interventions in the evidence gap map, we included studies that reported agricultural income and expenditure outcomes as these are relevant outcomes along the causal chain for some of the included interventions (such as microfinance and land property rights interventions).
<table>
<thead>
<tr>
<th>Outcome category</th>
<th>Definition (and examples)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment measures</td>
<td>Are captured under the Education category. Agricultural and firm productivity measures were excluded.</td>
<td></td>
</tr>
<tr>
<td>Income poverty</td>
<td>Outcomes measuring the incidence, depth, severity and density of income poverty, rate of impoverishment and poverty reduction, with a person being defined as poor, in absolute terms, if his or her income level falls below some minimum level determined to be necessary to meet basic needs (e.g., poverty headcount, poverty gap, squared poverty gap)</td>
<td></td>
</tr>
<tr>
<td>Living standards</td>
<td>Outcomes measuring individual and household access to, and quality of, water, sanitation, electricity, cooking fuels, housing, subjective well-being and mental health outcomes and multiple poverty indices evaluating living standards (such as the Oxford Multi-dimensional Poverty Index (OPHI 2013)).</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>Access to health, health expenditures, health-seeking behaviour and health outcomes (biological and behavioural, including health-seeking behaviours and intentions) of participants, household members or communities.</td>
<td>Mental health measures are captured under the living standards category under broader measures of subjective well-being. Mental health measures are captured under the living standards category under broader measures of subjective well-being. Mental health measures are captured under the living standards category under broader measures of subjective well-being. Anthropometric measures are captured under food security.</td>
</tr>
<tr>
<td>Education</td>
<td>Access to education, education expenditures, education outcomes (attendance, performance and achievement) and literacy of participants, household members or communities.</td>
<td></td>
</tr>
<tr>
<td>Income inequality</td>
<td>Outcomes measuring the inequality of incomes between different quintiles of a specified (sub) population (E.g., Gini coefficient). Includes studies reporting changes in consumption across different centiles of the population.</td>
<td>Some measures of income inequality require the use of modelling techniques potentially limiting the ability to directly attribute impact to the intervention of interest.</td>
</tr>
<tr>
<td>Food security</td>
<td>Any outcomes measuring food security across the four dimensions included in the Declaration on Food Security (FAO, 2009): food availability, access, utilisation and stability. These are typically measured using</td>
<td></td>
</tr>
<tr>
<td>Outcome category</td>
<td>Definition (and examples)</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>a range of different indicators, including food consumption, food expenditure, prevalence of undernourishment, nutritional status (FAO, 2013, Stewart et al., forthcoming) We will accept any outcome measure defined by study authors as measuring food security. Includes anthropometric measures (such as BMI, weight for age, height for age) as proxies for food security.</td>
<td></td>
</tr>
<tr>
<td>Empowerment / social inclusion</td>
<td>Empowerment/agency outcomes: Outcomes measuring the ability and opportunity of the disadvantaged to exercise their rights, obtain access to resources and participate actively in the process of making decisions and shaping society (Luttrell et al. 2009), including measures of economic, political, social and psychological empowerment. Includes measures of self-confidence, autonomy in decision-making, challenging of existing norms, locus of control (decision-making), domestic/sexual/intimate partner violence measures, child labour, early marriage, and communication about sex / HIV with intimate partner. Social inclusion / stigma outcomes: Outcomes measuring the (degree of) involuntary exclusion of individuals and groups from society’s political, economic and societal processes, which prevents their full participation in the society (UN 2010), outcomes measuring negative social attitudes (perceived stigma), and discriminating behaviours (enacted stigma) (Sengupta et al. 2011) toward the (absolute or relative) poor as well as measures of social capital.</td>
<td></td>
</tr>
<tr>
<td>Costs / Cost-effectiveness / Cost-benefit</td>
<td>Outcomes measuring the costs of interventions and measures of interventions cost-effective and value for money.</td>
<td></td>
</tr>
</tbody>
</table>

**Populations**

We did not exclude studies on the basis of the populations included in study samples.

**Study designs**

The evidence gap map includes impact evaluation and systematic review studies.

Impact evaluations were defined as studies that measure the net change in outcomes of a development programme using counterfactual analysis (i.e., those that compare a treatment condition to what would happen in the absence of the treatment) (White 2010). The following study types were included:
- randomised controlled trials
- regression discontinuity designs
- natural experiments\(^6\), and
- quasi-experimental studies using appropriate methods to control for selection bias and confounding (such as statistical matching, difference-in-differences estimation, fixed effects models, instrumental variables estimation, and ‘Heckman’ selection models).

Other types of longitudinal studies without a comparison group (e.g., before vs. after studies) were excluded, as were studies conducting cross-country comparisons or qualitative analysis only. Studies using a pipeline or phased-in approach were only valid if they also utilized one of the methods listed below. Within each of these categories, studies needed to meet the minimum criteria to be included. These were based on the 3ie Impact Evaluation Register screening protocol (see Mishra and Cameron, 2014).

Systematic reviews were defined as studies that synthesise all the existing high-quality evidence using transparent methods to give the best possible, generalisable statements about what is known (Waddington et al. 2012). We included systematic reviews that summarised the evidence on the effectiveness of interventions that meet the EGM intervention inclusion criteria. Systematic reviews of efficacy trials\(^7\), narrative reviews which do not describe methods used for data collection and synthesis, and reviews focusing exclusively on questions other than effects of interventions (e.g., reviews of risk factors, prevalence of a condition) were excluded.

**Time period**
For the impact evaluations, no date restrictions were applied. For systematic reviews, only systematic reviews published in or after 1993 were included\(^8\).

**Location**
To be included, impact evaluations had to be conducted in at least one low- or middle-income country\(^9\) at the time of data collection. Systematic reviews needed to include evidence from low- and middle-income countries (even if the majority of the evidence was from high-income countries\(^10\)).

**Data extraction and coding**
We coded information about the types of interventions and outcome measures used in the included studies, and mapped these into the framework of key intervention and outcome categories.

A study was classified under more than one intervention category if it separately evaluated the effects of each intervention component belonging to different intervention categories.

\(^6\) Natural experiments were defined as “an observational study in which the researcher cannot control or withhold the allocation of an intervention to particular areas or communities, but where natural or predetermined variation in allocation occurs” (Petticrew et al. 2005: 752).

\(^7\) Efficacy trials determine whether an intervention produces the expected result under ideal/controlled circumstances, whereas effectiveness trials measure the degree of beneficial effect under “real world” settings.

\(^8\) 1993 was selected as a cut off date for SRs as this was when the Cochrane Collaboration was set up and our assumption is that there are very few good quality SRs published before this. Putting a limit on publication date also makes the searching more manageable.

\(^9\) We used the World Bank classification of Low and Middle-Income countries: [http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Lower_middle_income](http://data.worldbank.org/about/country-classifications/country-and-lending-groups#Lower_middle_income). For countries that have recently moved between World Bank income classifications, we cross-referenced the year(s) of data collection in studies with the date(s) that countries moved between middle- and high-income statuses ([http://en.wikipedia.org/wiki/World_Bank_high-income_economy](http://en.wikipedia.org/wiki/World_Bank_high-income_economy)).

\(^10\) In the end, all included systematic reviews synthesised evidence that was either entirely or mostly from low- and middle-income countries.
Each outcome measure was classified under a single outcome category as outlined in Table 2.

We coded the poverty status of the study samples where studies provided adequate information to do so\textsuperscript{11}. The poverty categories used to code the included studies are provided in Table 3\textsuperscript{12}.

**Table 3: Population detail categories and definitions used for coding**

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme income poor ($1.25 a day)</td>
<td>Extreme income poor defined as individuals living on less than $1.25 PPP a day</td>
</tr>
<tr>
<td>Poor according to national poverty line</td>
<td>Extreme income poor defined as individuals / households that lie below a national poverty line</td>
</tr>
<tr>
<td>Other income poor</td>
<td>Other income / cash poor individuals / households (e.g. people living on less than $2 PPP a day, bottom 10% of income distribution)</td>
</tr>
<tr>
<td>Poor according to calorific content or food security status</td>
<td>Poor defined as individuals/households below a consumption poverty line (e.g., 2,200 kilo calories per day) or based on food security status (e.g., household in chronic food need)</td>
</tr>
<tr>
<td>Poor based on non-cash wealth (assets, land)</td>
<td>Poor defined by the types, amount and/or quality of assets or land owned (e.g., households that own less than 0.2 acres of land)</td>
</tr>
<tr>
<td>Poor based on participatory wealth ranking</td>
<td>Poor defined as individuals / households identified by the intervention / study team through a participatory / community-based wealth ranking exercise</td>
</tr>
<tr>
<td>Poor according to a multiple deprivation measure (other than PWR)</td>
<td>Poor defined as individuals / households based an index of multiple deprivations (e.g., quality of floor, walls, ceiling, access to / quality of sanitation / water, access to electricity etc.)</td>
</tr>
<tr>
<td>Other non-income poor</td>
<td>Poor individuals / households defined using other clearly described criteria that are not covered by the above categories</td>
</tr>
<tr>
<td>Other poor</td>
<td>Individuals / households defined as poor without further information about what poverty criteria were used</td>
</tr>
<tr>
<td>Non-poor</td>
<td>Individuals / households considered to be non-poor based on any of the categories above</td>
</tr>
<tr>
<td>Unclear</td>
<td>Not enough information provided to determine whether the individuals / households are poor</td>
</tr>
</tbody>
</table>

We also coded whether results were analysed according to poverty status (e.g. if subgroup analyses were conducted for people below/above the poverty line, according to income quintiles etc.).

We did not code information about the findings of the studies (e.g., whether the intervention had a positive/negative/no effect on a particular outcome), because a synthesis of the

\textsuperscript{11} If the study did not provide sufficient information about the sample characteristics to determine poverty status, we used, where possible, the characteristics of the targeted population and information about the targeting/eligibility criteria used by the intervention (in this order of priority) to approximate poverty status.

\textsuperscript{12} A study was classified under multiple population categories if it met the population characteristics criteria for multiple categories outlined in Table 3.
findings is beyond the scope of an EGM. We critically appraised the included systematic reviews using the 3ie Systematic Review Database Quality Appraisal Checklist\textsuperscript{13} in the process of producing the systematic review summary. Each review was given a rating of high, medium, or low confidence in the validity of the findings based on the overall judgement of the reporting and quality of the systematic review.

A more detailed report on the methodology used to develop the EGM is available upon request.

3. Findings

Search results

We screened almost 14,000 titles and abstracts, identified through a systematic search of the published and unpublished literature. A great majority of these were excluded on grounds of relevance. We re-screened almost 2000 studies in detail at abstract stage. This led to the inclusion of over 600 studies for full text screening. In the end, 248 unique impact evaluation studies (consisting of 334 papers) and 24 unique systematic reviews (consisting of 26 papers) met the inclusion criteria. A detailed break-down of the search results is outlined in Figure 1.

\textsuperscript{13} Adapted from Supporting the Use of Research Evidence (SURE) Collaboration. SURE checklist for making judgements about how much confidence to place in a systematic review. In: SURE guides for preparing and using policy briefs. www.evipnet.org/sure
State of the evidence

Volume of evidence

The EGM highlights that there is a large amount of evidence evaluating the effectiveness of productive safety nets in low- and middle-income countries. We identified 248 impact evaluations (205 completed and 43 ongoing), and 24 systematic reviews (20 are completed...
and 4 ongoing) that evaluate the effectiveness of productive safety nets on at least one of the outcomes outlined in the framework.\footnote{Intervention categories in rows, outcome categories in columns. Size of bubble reflects size of evidence for that particular intersection. Grey bubbles refer to impact evaluations, green, orange and red bubbles to systematic reviews of high, medium and low confidence respectively, blue bubbles identify ongoing systematic reviews. The interactive version of the EGM can be accessed at: \url{http://gapmaps.3ieimpact.org/evidence-maps/productive-safety-nets-gap-map-all-populations}}

\textbf{Figure 2} below presents a screenshot of the EGM displaying all the impact evaluations and systematic reviews that met the inclusion criteria. This visual overview outlines the distribution of the evidence within the framework. Interventions are listed on the y axis and outcomes on the x axis. The bubbles appearing at intersections between interventions and outcomes denote the existence of a study or studies examining the relevant intervention and outcome. Grey bubbles represent impact evaluations. Green (high confidence), orange (medium confidence) and red (low confidence) bubbles correspond to systematic reviews and the confidence overall rating given to a systematic review based on a careful appraisal of the methods applied in the systematic review, using a standardised checklist\footnote{The checklist can be accessed at: \url{http://www.3ieimpact.org/media/filer_public/2012/05/07/quality_appraisal_checklist_srdatabase.pdf}}. A purple bubble represents a protocol for a forthcoming systematic review. The size of the bubble reflects the volume of that type of evidence in the intersection. The larger the bubble, the greater the volume of evidence in that cell.

The interactive version of the EGM (available at: \url{http://www.3ieimpact.org/en/evidence/gap-maps/}) provides an opportunity for users to explore the evidence base and the findings of the included studies further. The platform enables users to remove types of evidence from the map, filter the evidence by population, study type, geographic region and country, zoom in on a section of the map and to access brief user-friendly summaries of the included studies. More information on how to navigate the online evidence gap maps can be found on the 3ie website at: \url{http://www.3ieimpact.org/en/evidence/gap-maps/}. 

Figure 2: Evidence Gap Map of Productive safety nets: a visual overview of all included impact evaluations and systematic reviews evidence

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditional cash transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconditional cash transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-kind transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Literacy and Business Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for improved linkages to markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land property rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group formation for collective action</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multicomponent interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Impact evaluations
- High confidence
- Medium confidence
- Low confidence
- Protocol
Distribution of evidence: Impact Evaluations
The EGM suggests that there are very few absolute gaps in the impact evaluation evidence on productive safety nets, though this evidence is not equally distributed.

Interventions
Figure 3 present the frequency with which different interventions were evaluated by type of evidence, capturing the distribution in Figure 2.

Figure 3: Number of included impact evaluations and systematic reviews by intervention category

The table shows that there is a high concentration of evidence evaluating microfinance, particularly microcredit. There is also a high concentration of studies evaluating multicomponent interventions (a considerable proportion of which also evaluate microfinance, but have been classified under multicomponent because they do not separately evaluate the effects of credit, savings and insurance). In terms of volume of evidence, this is followed by evaluations of employment assistance, land property rights, financial literacy and business training, and group formation programmes.
Figure 4: EGM of productive safety nets: Intervention gaps in evaluation evidence

*Note: Intervention gaps in the evidence base highlighted in range.

As shown in Figure 4, there is a total absence of evidence (from impact evaluations and systematic reviews) on support for improved linkages to markets. The EGM also found very few studies evaluating cash and in-kind transfers and insurance interventions. However, note that the intervention inclusion criterion for these categories was restricted to interventions that have some income- or livelihoods generating component in addition to the cash or in-

---

16 This may be caused by a restriction in the inclusion criteria to studies that evaluate individual, household, or community level outcomes. It is possible that studies evaluating these interventions focus on evaluating firm-level outcomes rather than individual, household and community level outcomes. This evidence falls outside of the scope of the current evidence gap map.
kind transfer or insurance. It is possible that the universe of programmes that are implemented with income- or livelihoods generating component is more limited.

Outcomes

Figure 5 present the frequency with which different outcomes were evaluated in the included impact evaluations and systematic reviews respectively.

Figure 5: Number of included impact evaluations and systematic reviews by outcome category

The table highlights that almost all studies report at least some measure of income, consumption or savings. Other frequently reported outcomes include employment, assets and land ownership, food security and empowerment. Among impact evaluations, another frequently reported outcome is access and take-up. Among systematic reviews, health outcomes are frequently reported.

Figure 6 of the EGM highlights that far fewer studies measure income poverty such as the poverty head-count or other poverty indices and risk management / adaptive capacity outcomes. This is particularly surprising since these interventions are frequently implemented with the objective of helping people sustainably escape poverty. Only a very small number of studies evaluate income inequality. This might be because income inequality is typically measured at the national level. Nevertheless, some studies used community-based income inequality measures to provide an indication of changes in localized inequality. Very few studies report any kind of cost data or conduct cost effectiveness or cost-benefit analyses.
Figure 6: EGM of productive safety nets: Outcome and specific gaps in impact evaluation evidence

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Access / Take up</th>
<th>Knowledge / Skills</th>
<th>Assets / land</th>
<th>Employment</th>
<th>Risk management / resilience</th>
<th>Income / consumption / savings</th>
<th>Income poverty</th>
<th>Living standards</th>
<th>Health</th>
<th>Education</th>
<th>Food security</th>
<th>Income inequality</th>
<th>Empowerment / social inclusion</th>
<th>Cost / cost-effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditional cash transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconditional cash transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-kind transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Literacy and Business Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enterprise development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support for improved linkages to markets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land property rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group formation for collective action</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multicomponent interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Outcome gaps in the evidence base highlighted in blue. Intervention gaps in evidence base highlighted in orange. Specific evidence gaps highlighted in red. The size of the bubbles represents the volume of each type of evidence in each cell. Finally, Figure 6 also highlights some specific gaps in the impact evaluation evidence (highlighted in red). There seems to be a limited number of impact evaluations evaluating the effects of financial literacy and business training, enterprise development and land reform rights interventions on health, education and food security outcomes.

**Populations**
Figure 7 presents the frequency of included impact evaluations and systematic reviews by population.

**Figure 7: Number of impact evaluations and systematic reviews by population status**

Just over half of the included impact evaluations (57%) reported either that the interventions targeted the poor, or that the sample included a population that was defined as poor. The vast majority of the remaining impact evaluations did not provide sufficient information about the population to judge their poverty status. Among those studies that report targeting or evaluating the poor, a large number of studies did not provide enough information about the criteria used by the implementing agencies and/or study authors to define the included population as poor. A slightly higher proportion of systematic reviews (67%) mention that at least some of the studies included in the review evaluated populations living in poverty. These findings are surprising, and noteworthy, in that these interventions are frequently implemented with the objective of alleviating poverty, yet many of the studies evaluating these interventions do not provide sufficient information about the population to judge their poverty status.

Figure 8 presents the frequency of poverty definitions used by the sub-sample of impact evaluations and systematic reviews that reported some information on the poverty status of the evaluated population.

The table shows that among the 141 impact evaluations, only 7 per cent (10 studies) provided sufficient information to judge that the majority of included participants lived on less than 1.25 dollars a day. Thirteen per cent (19 studies) reported that the majority of included beneficiaries lived below a national poverty line. One third of the studies that reported targeting or evaluating the poor, referred to some form of income poverty, as opposed to other poverty measures such as calorific content, wealth ranking or living standards. Very few systematic reviews report any information about the poverty status of the samples included in the reviews, and none conducted sub-group analysis by poverty status.
Figure 8: Number of impact evaluations and systematic reviews by poverty definition

The online interactive version of the EGM allows the users to explore the evidence base using a population filter. This feature can be used to help identify what we know about the effects of productive safety nets on particular populations, such as those living below a national poverty line, or those classified as food insecure. The filter is also useful for identifying some of the existing evidence gaps in what we know about what works to address different types or levels of poverty. For example, Figure 9 highlights the distribution of the 10 studies that evaluate the effectiveness of productive safety nets on people living below the international poverty line of 1.25 dollars a day. It presents a stark contrast to the picture of the total evidence base of 248 impact evaluations and 24 systematic reviews included in the full EGM.
Figure 9: EGM of productive safety nets: populations living on less than 1.25 dollars a day

**Systematic review evidence**

The majority of the completed included systematic reviews have been rated at high or medium confidence in the validity of findings (see **Figure 10**). As indicated in **Figure 11** (in green and orange), the majority of these evaluate Microfinance and Multicomponent interventions, indicating an evidence gap in the synthesis of evidence of effects for the majority of the productive safety net interventions. However, some of the currently on-going systematic reviews are filling some of these evidence gap (indicated in blue in **Figure 11**).
Figure 10: Number of systematic reviews by confidence rating and status of completion

Figure 11: EGM of productive safety nets: Systematic reviews excluding low-confidence ratings
The EGM allows the user to explore the evidence gaps by removing or adding systematic reviews of different confidence ratings to the evidence gap map. The evidence gap map also links to user-friendly summaries of the included studies. For systematic reviews, these include a brief overview of the key limitations of each systematic review identified through the critical appraisal process.

**Findings of high quality systematic reviews**

Three of the included systematic reviews were rated with high confidence in the validity of their findings.

A systematic review by Pande and colleagues (2012) synthesised studies evaluating the impact of access to formal financial services on poor people’s incomes in low- and middle-income countries. The authors include a total of 12 studies, covering South and South East Asia, Central and South America, and Africa, including the Philippines, Thailand, Vietnam, India, Nicaragua, Kenya, Ethiopia and Tanzania. The authors find that as a short-term solution, innovatively designed savings products that help people address behavioural challenges to saving such as time-inconsistent preferences and the inability to commit can increase the income of the poor. Improved technology, such as mobile phones banking, can lead to increased household consumption and asset accumulation via increased income. The expansion of formal banking services provided by the State in rural areas has the potential to increase rural wages and agricultural investment and in turn reduce rural poverty. There was no evidence on the impact of financial literacy provided with formal banking services.

A second review by Lawry and colleagues (2014) synthesised quantitative and qualitative evidence on the impacts of interventions to strengthen land property rights on agricultural and livelihood outcomes in rural areas of low- and middle-income countries. The review includes twenty quantitative studies and nine qualitative studies. Of the quantitative studies, eight were located in sub-Saharan Africa, six in East Asia, five in South America and one in India. Of the nine qualitative studies, seven were conducted in rural areas of sub-Saharan Africa, one study focused on Peru and one on Vietnam. All included studies assessed the effects of freehold titling. The quantitative analysis found that the average effect on welfare, as measured by income or consumption, was an increase of about 15 percent, on average. The authors suggest that increases in perceived tenure security and long-term investment are credible channels through which tenure recognition contributed to welfare for those who received titles. They find no support for the hypothesis that access to credit is an important channel through which tenure recognition improves welfare, although they note the evidence base is very thin.

A final review by Vaessen et al. (2014) synthesised quantitative and qualitative evidence on the impacts of microcredit on women’s control over household spending in developing countries, and the mechanisms through which effects are mediated. The authors included 25 unique studies in the review. Twenty-two of these studies took place in South Asia (13 of them in Bangladesh), five in sub-Saharan Africa, and one each in Morocco and Kyrgyzstan respectively. The authors find that overall, there is no consistent evidence of a positive effect

---

17 The review targets the poor and later reports focusing on low-income populations, suggesting the review included the income poor, though no further information is provided on how income poverty was defined.
18 The review does not report whether the included populations were poor and does not conduct analysis by poverty status.
19 The review restricted inclusion to studies that evaluated outcomes for poor women in low and middle income (or developing) countries but does not provide a more detailed definition of poverty.
of microcredit on women’s control over household spending in low- and middle-income countries. However, the authors identify important mechanisms which mediate the effect of microcredit on women’s control over household spending and conclude that microfinance-delivery mechanisms and the relevant gender-relations context, as well as the existing financial situation of the household play an important role in determining whether or not microcredit can make a difference to women’s control over resources.

4. Conclusions and implications
The EGM highlights that there is a large volume of evidence on the effectiveness of productive safety nets in low- and middle-income countries. There are few absolute gaps in the evidence base, particularly among impact evaluation studies. However, there are patterns in the evidence base that are worth highlighting, including some significant gaps in the evidence base on protective safety nets and extreme poverty.

Though most studies report some measures of income, consumption or savings, a very small proportion of these studies then go on to measure the effects on income poverty, risk management/adaptive capacity and income inequality outcomes. This is particularly surprising since these interventions are frequently implemented with the objective of helping people to sustainably escape poverty. Without this information, it is difficult to assess to what extent these interventions meet their poverty-reduction aims and what are their effect on income inequality. Future studies should collect data on, and analyse the effects of, productive safety nets on poverty, adaptive capacity and inequality to help inform the evidence on the effectiveness of these interventions on these crucial outcomes of interest.

Almost half of the included impact evaluations studies did not report any information relating to the poverty status of the studied populations. Among those studies that report targeting or evaluating the poor, most do not provide enough information about the criteria used by the implementing agencies and/or study authors to define the included population as poor. This is particularly alarming since this is vital information that would allow programme implementers to target the interventions to those people that can benefit from these interventions the most. Without this information, we cannot reliably tell what works to get people out of poverty.

Among those studies that provided detailed information on the poverty status of the targeted or evaluated population, very few use the $1.25 a day measure. Similarly few studies use calorific content, food security status, or multiple deprivation indices as measures of poverty. More frequently used measures of poverty status include the national poverty line, non-cash wealth measures such as assets or land-holding, and participatory wealth rankings. It may be that measures such as $1.25 a day or food security measures are not commonly used by governments, NGOs and other implementing agencies as targeting mechanisms when implementing interventions, despite being key Millennium Development Goal indicators.

The systematic review evidence base is more limited. There are 20 completed systematic reviews, ten of which were rated as high or medium quality reviews and the majority of the reviews evaluate microfinance and multicomponent interventions. There are thus considerable “systematic review gaps” for some of the other productive safety net interventions reviewed in this evidence gap map. Areas with a sufficient number of impact evaluations, but no high or medium quality systematic reviews, are potential areas worth considering for future systematic review research commissioning.

The evidence gap map of productive safety nets highlights that there is a large amount of studies evaluating the effectiveness of these programmes. However, despite the abundance of evidence on productive safety nets, there are gaps in the evidence base that make it difficult to reliably assess whether these interventions help people escape poverty. Future
research should aim to clearly describe the targeting criteria used by the intervention to recruit participants into the intervention, as well as sample characteristics that report on the poverty status of the included participants. Better reporting in studies would improve our ability to effectively target interventions in ways that achieve the greatest benefit for the poor.


