



**Food and Agriculture Organization
of the United Nations**

**Combined effects and
synergies between agricultural
and social protection
interventions:
What is the evidence so far?**

Combined effects and synergies between agricultural and social protection interventions: What is the evidence so far?

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FAO, together with its partners, is generating evidence on the impacts of social protection on poverty reduction, food security, nutrition and resilience and is using this to provide related policy, programming and capacity development support to governments and other actors. Countries include Kyrgyzstan, Lebanon, Lesotho, Malawi, Rwanda, Senegal, Zambia, and Zimbabwe.

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Acronyms

- CCT** – Conditional Cash Transfers
- CGAP** – Consultative Group to Assist the Poor
- CGE** – Computable General Equilibrium
- CGP** – Child Grant Programme
- CLP** – Chars Livelihood Programme
- CP** – Complementary Programmes
- CPFR** – Challenging the Frontiers of Poverty Reduction
- CSR** – *Comunidades Solidarias Rurales*
- ENHRUM** – Encuesta Nacional a Hogares Rurales de México
- EP** – *Encadenamientos Productivos* (Productive chains)
- ER** – Enhancing Resilience
- FA** – *Familias en Acción*
- FAA** - Framework for Analysis and Action
- FAO** – Food and Agriculture Organization of the United Nations
- FISDL** – *Fondo de Inversión Social para el Desarrollo Local* (Social Fund for Local Development)
- FISP** – Farm Input Subsidy Programme
- FOSIS** – Fondo de Solidaridad e Inversión Social (Social Solidarity and Investment Fund)
- FSUP** – Food Security for the Ultra Poor
- HABP** – Household Asset Building Programme
- IDRC** – International Development Research Centre
- IDS** – Institute of Development Studies
- IEF** – *Ingreso Ético Familiar*
- IFAD** – International Fund for Agriculture Development
- IFPRI** – International Food Policy Research Institute
- IKP** - Indira Kranti Patham
- IPC-IG** – International Policy Centre for Inclusive Growth
- LEWIE** – Local Economy-wide Impact Evaluation
- LFSSP** - Linking Food Security and Social Protection
- J-PAL** – The Abdul Latif Jameel Poverty Action Lab
- MDS** – Ministry of Social Development

MKW – Malawian Kwacha (Malawian currency)

NREGA – National Rural Employment Guarantee Act

NSUP – Non-selected Ultra Poor

OFPS – Other Food Security Programme

ODI – Overseas Development Institute

OP – Overlapping Programmes

OPM – Oxford Policy Management

OR – *Oportunidades Rurales*

PtoP – From Protection to Production

PRONAF – *Programa Nacional de Apoio à Agricultura Familiar*

PSNP – Productive Safety Net Programme

SAN – *Seguridad Alimentaria y Nutricional* (Food Security and Nutrition)

SCTP – Social Cash Transfer Programme

SISBEN – *Sistema de Identificación de Potenciales Beneficiarios de Programas Sociales*
(System for the Identification of Social Programme’s Potential Beneficiaries)

SKS/UPP - Swayam Krishi Sangam/Ultra Poor pilot programme

SLP – Sustainable Livelihoods Programmes

SUP – Selected Ultra Poor

3ie – International Initiative for Impact Evaluation

WFP – World Food Programme

WINGS – Women’s Income Generating Support

Executive Summary

Introduction

Despite the progress made in reducing poverty and hunger over the past few decades, there are still about a billion people who are poor and 800 million who are hungry. These people are concentrated in sub-Saharan Africa, they live in rural areas and their livelihoods depend largely on agriculture (FAO, 2015). These facts indicate the importance of looking at the specificities and the context of both the agricultural sector and public policies in relation to poor and vulnerable people, as well as their intersection with social protection policies designed to fight poverty and vulnerability.

Small family farmers in developing countries are exposed to negative shocks, such as illness, drought and animal pests, and face challenges in accessing input and output markets (Gavrilovic *et al.*, 2016). As a result, poor and vulnerable households quite often adopt low-risk and low-return livelihoods strategies that reduce their income-earning potential. Their production and consumption decisions are inseparable, such that risks and challenges faced in their income-generating activities also affect their consumption decisions. This means that they may have to take decisions that have detrimental long-term effects on development outcomes (e.g. investing less in health and education, opting for staple rather than cash crops, sending their children to work, etc. (Dorward *et al.*, 2006).

Coordinated and coherent agricultural and social protection policies and programmes have the potential to help poor small family farmers break the cycle of disadvantage and prevent the transmission of poverty across generations. Agricultural interventions address constraints limiting access to natural resources, productive inputs, financial and advisory services and markets. They include extension services, tenure reform, natural resource management, subsidized credit, investment grants, access to improved seeds and fertilizer subsidies. Social protection provides assets to smallholder farmers through cash transfers and public works programmes; this allows them to invest more time and resources in agriculture, increase their participation in social networks and better manage risks. Yet despite the clear intersection between the two types of interventions, it is only recently that some countries have started to experiment with combining or coordinating them.

This literature review has three main purposes. First, it seeks to gather and analyse evidence from impact evaluations concerning the added value of coordinated agricultural and social protection interventions in order to inform the design of future policies and programmes. Second, based on the available evidence, it aims to determine which types of combined interventions have had the greatest impacts in different contexts. Finally, the review means to help define a future evidence-generation agenda by identifying critical knowledge gaps.

To achieve these objectives, the review looks at the findings of robust impact evaluations that focus on the interaction between agricultural interventions (including rural extension services, rural development, natural resource management, access to market, subsidized credit, investment grants, access to improved seeds and fertilizer subsidies), and social

protection interventions, with a specific emphasis on social assistance such as cash transfers and public works. The review focuses on outcomes related to hunger, malnutrition and poverty and the factors that contribute to their achievement, particularly labour market participation and productive activities.

The analytical framework used in the review draws from two main sources: the theory of change on the relationship between agriculture and social protection developed by Tirivayi, Knowles and Davis (2013) and the Framework for Analysis and Action (FAA) for strengthening coherence between agriculture and social protection (Gavrilovic *et al.*, 2016). The theory of change looks at how social protection interventions aimed at alleviating poverty and vulnerability can impact agriculture and how agricultural interventions in return can affect risks, vulnerability and the income-generating capacities of the poor and vulnerable, particularly in rural areas. Further, the theory of change allows us to identify the key outcomes of interest that are affected by both types of interventions and their causal links. The FAA looks at how coherence between agricultural and social protection interventions can be strengthened.

This paper classifies agricultural and social protection interventions whose impact evaluations are reviewed here as follows:

1. Sustainable livelihoods programmes (SLPs): Single programmes with multiple components that include both agricultural and social protection interventions (e.g. sustainable livelihoods interventions combining asset transfers or investment grants, cash transfer for consumption support, business training, life skills, savings incentives, etc.).
2. Complementary programmes (CPs): Programmes from the agricultural and social protection sectors that are designed and/or implemented in a somewhat coordinated and/or aligned manner. Even when there is no overlap at the intervention level, some programmes implemented in the same location could also be classified as CPs. This includes, for example, school feeding programmes that procure from local smallholder farmers to whom they provide production support (e.g. Purchase from Africans for Africa – PAA Africa) as well as food assistance initiatives, such as Bangladesh’s Public Food Distribution System, that procure from smallholders.
3. Overlapping programmes (OPs): These programmes happen to partly overlap at the individual/household or geographical/community levels. Evidence from OPs provides indications on how to improve coherence between the two types of interventions through coordination and/or alignment. For example, evaluations of the impact of rural credit and/or extension services in areas and communities where the poor and vulnerable population also have access to social transfers but these programmes are not coordinated, may offer some evidence of the added value of doing so (e.g. PRONAF’s credit for family farmers and *Bolsa Familia* in Brazil and Peru’s rural credit and *Juntos* social transfer programmes).

The key hypothesis is that the effects of bringing together agricultural and social protection interventions are synergistic rather than just a sum of the positive impacts that each programme has on its own. The distinction is important for this review, which focuses on the empirical results of evaluations conducted using various experimental and quasi-experimental methodologies and covering agricultural and social protection interventions in very different environments in Asia, Africa and Latin America. In most cases, however, evaluations did not try to measure the interaction effects of combined programmes but focused simply on the cumulative or the additional impacts of complementary programming. Thus, a major challenge was the lack of evaluations, whose design allowed the review to disentangle and understand the multiplicative and additive effects of agricultural and social protection interventions.

Methods

The literature search for the review blended three strategies: a snowball approach, a bibliographic database search and a hand-search. To be selected, impact evaluations had to be based on robust evaluation methodologies with an adequate identification strategy, including the definition of a clear comparison group and the counterfactual. Acceptable methodologies included both experimental (randomized control trials) and non-experimental (e.g. difference-in-differences, propensity score matching, regression discontinuity design, generalized propensity score and instrumental variables) designs.

The database search revealed only a few papers that looked specifically at the interaction between agricultural and social protection interventions. Overall, the literature search identified 37 evaluations, including academic papers, working papers, reports or book chapters. More than 50 percent of the evaluation reports considered in this review dated from 2015 or 2016; the oldest evaluation dated from 2009.

Feedback from experts familiar with evaluations of agricultural and social protection interventions confirmed the review's finding that the literature on the impact of combined agricultural and social protection interventions is thin. Two main factors may explain this. First, while agricultural and social protection programmes may have similar goals in terms of reducing hunger and poverty, they tend to use different strategic approaches and cover somewhat different target populations. Agricultural interventions tend to focus on commercial farmers while social protection programmes focus on more vulnerable subsistence farmers. Second, even when sectoral programmes are coordinated, impact evaluation is rarely included in project design. Furthermore, challenges around the implementation of combined programmes may jeopardize impact evaluation. A lack of programme coordination between different sectoral implementing agencies could partly explain the lack of solid evidence on the impact of combined programmes (mostly CP and OP types) as well as the contribution of their components (particularly in the case of SLPs) and estimates of the synergistic effect (interaction or multiplicative component).

Combined programmes

The literature search revealed a strong prevalence of certain categories of combined programmes in particular regions. In Asia, SLP seems to be the most prevalent category whereas Latin America favours CPs with a focus on conditional cash transfer (CCT) programmes and productive inclusion interventions. In Africa, a more balanced mix of categories was noted with a smaller number of evaluations overall. About 46 percent of the evaluations (17) reported on programmes implemented in Asia, 30 percent (11) in Latin America and 24 percent in Africa (9).

The over-representation of Asian programmes in the literature can be largely explained by the multiple evaluations of the SLP programme *Challenging the Frontiers of Poverty Reduction (CFPR)*, which is implemented by BRAC, an NGO founded in Bangladesh. The CFPR's key objective is to graduate rural families from extreme poverty and prepare them to participate in the microfinance programmes implemented by BRAC. It merges agricultural (e.g. productive asset distribution and training to manage that asset) and social protection (e.g. cash transfers for consumption smoothing and access to health services) interventions into a single programme. The CFPR has inspired similar programmes in Bangladesh and has been adapted to other parts of the world, including through two pilot projects in India, and one each in Pakistan, Ethiopia, Ghana, Honduras and Peru. The review also studied evaluations of CPs, including the Indira Kranti Patham (IKP) programme in Andhra Pradesh, a women's empowerment and rural livelihoods programme, and the P-135 II, a poverty reduction programme targeting ethnic minorities and isolated areas in Vietnam.

Aside from two SLP pilots in Honduras and Peru, most evaluations from Latin America are concerned with CPs and OPs. Of particular note is the IFAD-supported *Sinergias Rurales* (Rural Synergies) project (<http://www.sinergiasrurales.info/>), which evaluated synergies between CCT programmes (such as *Juntos* in Peru and *Familias en Acción* in Colombia) and rural development programmes that target poor family farmers.

For Africa there is an over-representation of evaluations focusing on Ethiopia's Productive Safety Net Programme (PSNP) and its links with agricultural interventions such as the Other Food Security Programme (OFSP) and the Household Asset Building Programme (HABP). In addition to the four evaluations from Ethiopia, the other four evaluations for Africa look at SLPs in Uganda and Ghana and an OP in Malawi involving the Social Cash Transfer Programme (SCTP) and the Farm Input Subsidy Programme (FISP).

Outcomes of interest

A total of 30 of the evaluation reports (81 percent) under review assessed the impact of combined programmes on income, consumption and/or expenditures. Interestingly, only five (13 percent) examined how programme impacts translated into poverty reduction. Hunger and malnutrition indicators were often reported by a variety of food security indicators such as a) perceived food security; b) standard food security scores; c) dietary diversity; d) frequency of meals or missed meals (the most prevalent set of indicators); and e) calorie intake. Overall, 23 papers (64 percent) looked at the impact of combined

interventions on food security indicators. Only two evaluations looked at anthropometric measurements for children.

Asset-related indicators were commonly assessed in the evaluations. In total, 28 reports (76 percent) discussed the impact of the interventions on asset accumulation with a focus on productive assets but also including durable goods (e.g. television, radio, refrigerator). A large number of papers reported the impacts of the programmes in terms of direct production and productivity indicators (e.g. total value of produce and/or value or amount of produce per area) or indirect indicators, reporting different sources of household income (and hours of work) dedicated to agriculture, livestock or non-farm enterprises.

Twenty evaluations (54 percent) include indicators that could be used to assess the impact of the interventions on production and/or productivity. However, far less is known about the impact of interventions on investments in agricultural and non-agricultural inputs. This type of intervention tends to assess ownership of productive assets rather than measuring direct expenditures on these inputs. Thus, fewer evaluations (only six out of 36) assessed, for instance, expenditures on the purchase of fertilizers or improved seeds. Savings and access to credit indicators were assessed in 18 evaluations (50 percent).

The impacts of combined programmes on labour supply and occupation were reported in about half (17) of the evaluations. Impacts on agricultural and non-agricultural self-employment was the most commonly used indicator, consistent with the objectives of many of the SLP and CP programmes to foster entrepreneurship. Finally, 13 evaluations (37 percent) measured the impacts of the interventions on indicators related to community participation. Some programmes aim to foster community participation through self-help groups, women's empowerment, productive associations or cooperatives and this set of indicators is clearly related to those objectives, which are much more diverse in their nature and less standardized than the sets of outcomes discussed in this review.

Main results

Supporting households in making productive investments

- Investment in owned, rented and cultivated land

The impact evaluations show increases in access to and/or the use of land. For SLPs, the evidence suggests that, in the case of Bangladesh (CFPR Phase 1 and 2 and Food Security for the Ultra Poor – FSUP), part of the return yielded by the livestock-based income generating activities was invested in the purchase or rent of more land. For CPs, there is evidence of more land utilization in Lesotho as a result of the combined Linking Food Security and Social Protection (LFSSPP) and Child Grants Programme (CGP), and in Peru, due to the overlapping of the rural credit and *Juntos* programmes. In India, the IKP programme led to an increase in the area of land cultivated by the poorest households.

- Investment in productive assets, sustainability and impacts on production

The evaluations of SLPs carried out in Asia and Africa reveal positive impacts on the accumulation of both productive and durable assets that go beyond the direct effect of the asset transfers by the programmes. There is also evidence that these impacts, although observed for all income quintiles, were higher for better-off beneficiaries. It is worth

noting that in Latin American, the SLP pilots in Honduras and Peru had much weaker impacts, particularly on productive assets. Strong impacts on asset accumulation were observed for the Ethiopia pilot, where the asset transfer was combined with the consumption support of the PNSP.

Similar evidence was found in the evaluations of the Ethiopian CP intervention, which brought together PSNP and OFSP/HABP. For other CPs and even some OPs, there is evidence that agricultural interventions, such as extension services and access to better technology, are likely to trigger some synergistic effects in terms of asset accumulation and the adoption of new technologies when combined with cash transfers or public works programmes. Positive impacts were observed for the IKP in India and the P-135 in Vietnam as well as for the interactions between *Sierra Sur* and *Juntos* and a rural credit programme and *Juntos* in Peru, the *Comunidades Solidarias Rurales* (CSR) and *Encadenamientos Productivos* (EP) in El Salvador and *Bolsa Familia* and *Programa Nacional de Apoyo à Agricultura Familiar* (PRONAF) in Brazil. However, there is only mixed evidence on the extent to which investments in productive assets translate to higher production and business revenue such as in the case of *Haku Wiñay* in Peru and the Local Education Assistance and Procurement (LEAP) project in Burkina Faso.

Strengthening risk management and resilience

- Access to credit and savings

The evaluations of SLPs show positive impacts on savings and access to formal credit. This result does not come as a surprise since mandatory or incentivized savings are key components of many SLP interventions. However, these impacts seem to be attenuated once the programme is phased out. The evaluations also reveal positive impacts on credit access and/or a shift away from informal to formal loans. A note of caution refers to the fact that positive impact on financial inclusion seems to be restricted to better-off participants. Evaluations of CPs also show positive impacts on access to credit for beneficiaries, as seen in the combined PSNP and the OFSP programmes in Ethiopia. Even OPs have had some positive impacts: in El Salvador, participating or having participated in the CCT programme seemed to have made it easier for food and nutritional security project beneficiaries to gain access to credit, particularly formal credit.

- Diversifying economic activities and sources of income

The evaluations of CPs show some diversification of economic activities in agriculture, including homestead gardens and livestock raising, but also a shift to non-farm businesses. In many of the SLPs, part of the livestock revenue was used to foster high-return crop production, as seen in FSUP, but not necessarily to support non-farm businesses. Diversification into non-farm businesses was more common in programmes seeking to enable vulnerable households to have a non-farm source of income, such as in Nicaragua (CCT+ investment grant) and Uganda (Women's Income Generating Support – WINGS). This type of impact was also found in the combined PSNP and OFSP programmes in Ethiopia (as well the PSNP only) and in the Enhancing Resilience Plus (ER+) in Bangladesh. In the case of some CPs and OPs, economic diversification for smallholder farmers was part of the complementary agricultural programme - usually

extension services - and implied the introduction of new crops. In the case of *Waku Wināy* in Peru, a typical CP, there has not only been increased diversification of crops (new fruits and vegetables), but also increases in both agricultural income and non-agricultural income and a fall in wage income (led by rural wage). Thus, as in the case of rural SLPs, rural CPs may lead to a change in the sources of income of households favouring self-employment sources.

- Negative coping strategies

There is not much evidence on child work, particularly for SLPs. The impact of OPs and CPs on child work seems to be mixed. Whereas *Bolsa Familia* in Brazil seems to be associated with a decrease in child work, rural credit seems to go into the opposite direction, with the interaction between the two tending to reduce child labour. In Lesotho, the combination of an unconditional cash transfer (CGP) with homestead gardening support seems to have led to an increase in child work, particularly for girls. The scarce evidence for the Bangladesh CFPR shows no impact on child work, a result similar to that found in Colombia for the combination of a CCT programme with a rural intervention. Overall, these results suggest that contextual factors need to be considered during project design to ensure that productive support to families lead to increases in child labour. As for begging and other undesirable forms of occupation, the evaluation of CFPR Phase 1 in Bangladesh shows reductions in their prevalence, but with attenuated effects in the long term. Asset depletion seems to be minimal in SLPs, most likely due to the consumption support component, although none of the evaluations disentangled this effect.

Shifts in labour allocation

The SLP impact evaluations that looked at impacts on labour force allocation show increases in the proportion of farm self-employment, particularly among women, who were the main beneficiaries of the asset transfers. In some cases, increases in male self-employment were also observed in both farm and non-farm self-employment. Most of the increases in farm self-employment were at the expense of time spent on wage labour, but the overall balance does not suggest a reduction in work intensity, just a reallocation in line with programmes objectives. This was also observed for interventions seeking to enable rural households to diversify their incomes by engaging in non-farm activities such as Uganda (WINGS) and Nicaragua CCT plus investment grants for non-farm businesses. However, even in these cases, some increases were seen in farm self-employment, although to a far lesser extent than non-farm self-employment. Similar impacts were also found for CPs such as the PSNP plus OFSP in Ethiopia and the combined LFSSPP and CGP programmes in Lesotho. The overall evaluation results suggest that combined agricultural and social protection programmes do not generate dependency but instead tend to stimulate labour force participation among beneficiaries.

Impact on consumption, expenditure, income, poverty and food security

The impact evaluations show that combined agricultural and social protection interventions are likely to have a positive impact on income, total expenditure and total and per capita food expenditure. The latter seems linked to improvements in food security,

as reported in many of the impact evaluations discussed here. SLPs and CPs, mainly in Asia and in Africa, show very positive impacts in all of these dimensions. In Latin America, the results seem more mixed, with some combinations failing to improve incomes (*Sierra Sur* and *Juntos*) and/or food security indicators (*Familias en Acción* and *Oportunidades Rurales*). Other combined interventions did have positive impacts on per capita income (*Bolsa Familia* and PRONAF), total household income (*Juntos* and *Haku Wiñay*) and food security indicators (CCT plus investment grant in Nicaragua, CCT plus rural development in El Salvador and *Haku Wiñay* in Peru).

Strengthening participation in community networks and stimulating local economies

- Spillover impacts

Only seven of the 37 evaluations looked at spillover effects. Of these, only the evaluation of *Sierra Sur* plus *Juntos* in Peru and other two evaluations of CFPR Phase II in Bangladesh showed spillover effects of the agricultural interventions for the non-eligible in treated areas. The four other evaluations were undertaken in the context of small scale pilots and did not find any evidence of spillover effects on the eligible, but non-treated population in treated areas. Investigating spillover effects for larger scale programmes, particularly on the non-eligible population, is a clear gap in the impact evaluation literature of both individual and combined programmes.

- Impacts on social and economic links with the community networks

Another important dimension of the community-level impacts of combined programmes is how they change the way beneficiaries interact with their communities in terms of reliance on, and support for, other community members and/or institutions. Various indicators have been used to capture this dimension. Overall, the evaluations that looked at this dimension found that SLPs and CPs that included components aiming to foster self-help groups and associations were likely to increase interactions between beneficiaries and their social networks, reducing social exclusion and increasing access to public services and community support.

Conclusions

Findings

Despite the difficulty of isolating the synergistic impact of combined programmes as presented in the impact evaluations, the evidence is rich enough to allow the assertion that combined programmes can have positive impacts that go beyond the effect of an individual intervention. Most evaluations, however, fail to assess whether the effects of combining agricultural and social protection interventions are greater than the sum of the parts.

The evidence also indicates the different roles that agricultural and social protection interventions can play as well as the challenges involved in their implementation. Overall, all three types of programmes have shown positive impacts on the following aspects of development:

- investments in productive assets;
- savings and access to formal credit;
- more stable, permanent and profitable sources of income;
- self-employment, particularly for women, and/or more profitable and decent employment;
- food security;
- income, consumption and expenditure levels; and
- poverty reduction.

Some issues related to joint programmes with different objectives have not been sufficiently investigated and/or evaluation results have revealed some trade-offs and limitations:

- Impact on child work;
- Direction and scale of spillover effects on non-beneficiaries;
- Sustainability of the positive results in the long term when programmes are scaled-up;
- Investment in productive assets and financial inclusion were either larger for or restricted to the better-off beneficiaries. Reaching the poorest of the poor is still challenging even within the context of SLPs;
- The extent to which greater investment leads to long-term productivity and income gains, particularly for CP programmes in Latin America;
- Adequacy of standard agricultural extension services for the target population of social assistance programmes; and
- Over-reliance on self-employment alternatives, overlooking better quality wage employment in the context of sustainable local development strategies;

Research gaps

Overall, it seems that identifying which combination works best is very context-specific and requires a specific theory of change. Determining how to combine, align and/or integrate different programmes can be informed by cost-benefit and cost-effectiveness analyses, but priorities may differ across settings and across countries, including policy preferences for specific types of programmes, which seem to have some regional patterns.

This review identifies three main gaps. The first relates to gaps in the analysis of individual/household level outcomes. Solutions to such gaps include: a) using more experimental evaluations and/or more robust quasi-experimental designs for CP programmes; b) designing evaluations that are able to disentangle the impact of different components of SLPs, particularly when they are scaled-up; and c) designing programmes that allow to better investigate spillovers. The second gap refers to the lack of evaluations looking at community level outcomes and the local economy. The gap refers to *lacunae*

in knowledge about the impact of programmes that combine food-based social protection interventions with programmes that purchase goods from family farmers and support the production from smallholder farmers as in some modalities of Home Grown School Feeding programmes such as the Purchase from Africans for Africa.

1. Introduction

Despite the progress made in reducing poverty and hunger over the past few decades, there are still about a billion people who are poor and 800 million who are hungry. These people are concentrated in sub-Saharan Africa, live in rural areas and their livelihoods depend largely on agriculture (FAO, 2015). These facts indicate the importance of looking at the specificities and the context of both the agricultural sector and public policies in relation to poor and vulnerable people, as well as their intersection with social protection policies designed to fight poverty and vulnerability.

As highlighted in Gavrilovic *et al.* (2016), small family farmers in developing countries are exposed to negative shocks, such as illness, drought and animal pests, and face challenges in accessing input and output markets. As a result, poor and vulnerable households quite often adopt low-risk and low-return livelihoods strategies that reduce their income-earning potential. Their production and consumption decisions are inseparable, such that risks and challenges faced in their income-generating activities also affect their consumption decisions. This means that they may have to take decisions that have detrimental long-term effects on development outcomes (e.g. investing less in health and education, opting for staple rather than cash crops, sending their children to work, etc. (Dorward *et al.*, 2006).

Coordinated and coherent agricultural and social protection policies and programmes have the potential to help poor small family farmers break the cycle of disadvantage and prevent the transmission of poverty across generations. At least in the short and medium term, increasing agricultural productivity among small family farmers is key to combating poverty within this population group. It is well accepted that agricultural interventions are needed for this. Such interventions can address structural constraints that limit access to land and water resources, inputs, financial services, advisory services and markets. Emerging evidence points to a somewhat innovative approach: complementing agricultural interventions with social protection. Social protection interventions can provide liquidity and certainty for poor smallholder farmers, allowing them to invest more in agriculture, reallocate labour to on-farm activities, foster human capital development, increase participation in social networks - an important source of informal risk management - and better manage risks, all of which may contribute to their engagement in more profitable livelihoods and agricultural activities.

Synergies between agricultural interventions and social protection can also be achieved within the local economy and at the community level. Social protection interventions usually lead to increased demand for food and other goods and services; agricultural interventions can increase local food supply to match that new demand and mitigate its potential inflationary effects. In addition, agricultural growth can improve employment opportunities in the agricultural sector, as well as increase food availability and keep staple food prices low, which benefits poor net food buyers. Finally, agricultural interventions can lead to more secure livelihoods and a movement out of poverty, which are likely to affect both the nature and composition of the social protection system (Devereux, 2009).

1.1 Objectives

This literature review has three main purposes. First, it intends to gather and systematize evidence from robust impact evaluations to inform policy and programme design concerning the value added of coordinated and coherent social protection and agricultural interventions. Second, based on the available evidence, it aims to assess whether it is possible to identify which combination of interventions have had the greatest impacts within different contexts. Finally, the review seeks to help define a future evidence-generation agenda by identifying critical knowledge gaps.

To achieve these objectives, the review analyses and summarizes findings of robust impact evaluations that focus on the interaction between agricultural interventions (including rural extension services, rural development, natural resource management, access to markets, subsidized credit, investment grants, access to improved seeds and fertilizer subsidies), and social protection interventions, with specific attention to social assistance such as cash transfers and public works. The review focuses on outcomes related to hunger, malnutrition and poverty and on factors that contribute to achieving these outcomes, particularly those factors related to labour market participation and productive activities.

1.2 Definitions

1.2.1 Agricultural and social protection interventions

This review focuses on the emerging empirical evidence provided by impact evaluations of combined agricultural and social protection programmes rather than on the evidence of isolated sectoral programmes. In this context, agricultural interventions, particularly for small family farmers “*focus on improving productivity in crops, fisheries, forestry and livestock and improving access to markets*” (Tirivayi, Knowles and Davis, 2013) and encompass both supply and demand side interventions. Social protection is defined for the purpose of this review as “*all initiatives, both public and private, that: provide income or consumption transfers to the poor; protect the vulnerable against livelihood risks; and enhance the social status and rights of the excluded and marginalised*” (Gavrilovic *et al.*, 2016, based on Devereux and Sabates-Wheeler [2004]).

1.2.2 Coherence between agriculture and social protection

There are many examples of how failing to coordinate the implementation of agricultural and social protection programmes can generate undesirable impacts, particularly when targeting the same beneficiaries. Devereux and Guenther (2007), for instance, describe unintended negative interactions between public works programmes and agricultural interventions in Ethiopia. Public works programmes (cash or food for work) were mostly implemented during the lean season, which is also the peak of the farming season with the preparation of the next harvest. As a result, farmers were diverted from working on their own land (or as labourers) to take on temporary jobs under the cash or food for work programmes. Such a diversion would jeopardize any agricultural intervention meant to support farming. This does not mean that social protection interventions, such as public

works, always counter the productive objectives of agricultural interventions. Indeed, the authors suggest that positive synergies can be created if payments for the public works or other social transfers take place just before the farming season so that farmers can invest part of their earnings in purchasing agricultural inputs (Devereux and Guenther, 2007). Thus, the carefully timed implementation of agricultural and social protection interventions can help minimize negative interactions and/or boost synergies, as seen in this particular case.

Other challenges may occur when agricultural and social protection interventions are implemented in the same location, but do not target the same population (i.e., the overlapping occurs only at the geographical area). Social protection interventions may target only the extreme poor, for example, while agricultural interventions tend to target mostly more productive farmers who are not eligible for social protection interventions. However, in many circumstances those better-off farmers who only benefit from agricultural interventions are also affected by the simultaneous implementation of social protection programmes in their community. For instance, a social protection programme may increase the reservation wage of local daily workers – putting upward pressure on production input costs – or increase demand for farmers’ produce triggered by the liquidity injected through social transfers. In this case, the coherent implementation of appropriate agricultural interventions (e.g. facilitating technological upgrades) could compensate rural producers for any increase in labour costs and/or enable them to expand their production to respond to higher local demand for their produce.

This review builds on some of the concepts developed in the Framework for Analysis and Action (FAA) developed to strengthen coherence between agriculture and social protection (Gavrilovic *et al.*, 2016). The FAA defines coherence as “*a systematic promotion of complementary and consistent policies and programmes across sectors, thereby creating synergies to combat rural poverty and food insecurity more effectively*” (Gavrilovic *et al.*, 2016, p.1). Coordination consists of a set of actions that ensure that interventions are implemented in a coherent manner to achieve a synergistic effect,¹ defined for the purpose of this review as an additional (multiplicative) effect on top of the sum of isolated impacts of both programmes (additive).

Although the FAA looks at both policy and programme issues, this review covers only the programme level, largely due to the bias found in most impact evaluations, which concentrate on programme rather than policy impacts. In addition, the ability to measure synergistic effects is largely determined by the evaluation strategy adopted by evaluators. Thus, as we will see later in the paper, it is always not possible to disentangle the synergistic effect from the overall effect of combined programmes.

As discussed in Gavrilovic *et al.* (2016), there are three avenues for strengthening coherence between agricultural and social protection interventions:

¹ Coherence and synergistic effects may also happen by chance. Some of the evaluations reviewed here show the synergistic effects of uncoordinated programmes that have some unplanned intersections in terms of targeted populations, both at the individual/household or community levels.

- Stand-alone agricultural interventions can be designed so that they are more socially protective and stand-alone social protection interventions can be designed to be consistent with the agricultural livelihoods of beneficiaries.
- Multiple interventions can be combined into a single programme so that targeted households participate in both agricultural and social protection interventions either simultaneously or sequenced over time.
- Potential synergies between different interventions can be exploited, even when they have different objectives and target groups, different programmes can be coordinated so that they involve the same households.

Recent attempts in Ethiopia to overcome the negative impacts of inconsistent agricultural and social protection interventions – as described above – have resulted in a move to a more coherent approach. This was done through the progressive alignment of programmes that, despite having different priorities, might target the same vulnerable populations in rural areas. Many of the changes in the design of agricultural interventions in Ethiopia, such as the Other Food Security Programme (OFSP) and the more recent Household Asset building Programme (HABP), particularly with regard to their coverage of Productive Safety Net Programme (PSNP) beneficiaries, were intended to boost synergies between the two types of intervention. Recent evaluations of the PSNP have confirmed the existence and importance of these synergies by looking at the differential impacts of the public works component of the PSNP programme when combined with the OFSP/HASP interventions, as will be discussed later in this review (Hoddinott *et al.*, 2015).

1.2.3 Types of coordinated or combined programmes

Tirivayi, Knowles and Davis (2013) review the results of impact evaluations of stand-alone agricultural interventions on poverty and vulnerability outcomes and show that a wide range of agricultural interventions increase household income, consumption and food security. The most effective programmes in terms of raising household income include irrigation projects, land reform, microcredit and cash/investment grants for farmers. Soil and water conservation interventions do not seem to have important impacts on household income. Agricultural interventions are also linked to increases in household labour supply and shifts in on-farm labour demand and between the agricultural and non-agricultural sectors. As for effects on the local economy, the literature has also identified some spillover effects on local consumption, prices and labour markets as well as notable multiplier effects. Finally, agricultural interventions seem to have no effect on child nutritional status.

Evaluations of stand-alone social protection interventions, such as social cash transfers, have mostly assessed outcomes related to their core objectives, namely poverty reduction, consumption smoothing and, in the case of conditional cash transfers (CCT), education, health and nutrition outcomes. However, largely stemming from the concern that social protection may create a disincentive to work, there has been increasing attention paid to the impacts of cash transfers on productive activities, particularly among households in

rural areas and that depend on agriculture for their livelihoods. This is evident from the empirical literature assessing the impact of Latin American cash transfers, which includes studies such as Gertler, Martinez and Rubio-Codina (2012) on Mexico; Martinez (2004) on Bolivia; and Soares, Ribas and Hirata (2010) on Paraguay, as well as recent evaluations by FAO and UNICEF that have looked at sub-Saharan African countries: Covarrubias, Davis and Winters (2012) on Malawi; Daidone *et al.* (2016) for seven countries in sub-Saharan Africa. All of these evaluations have adopted rigorous methodologies and have found strong evidence of the impact of cash transfer programmes on productive activities. In particular, they have shown that cash transfers not only provide social protection to vulnerable and poor people but also foster production gains at the farm and household levels (Davis, 2015). However, they also show that more attention should be paid to the potential synergies as well as risks involved when combining or aligning agricultural and social protection interventions, as these may conflict with the original social objectives of the programmes (e.g. by having a negative or moot impact on child labour due to the higher demand for family labour).²

Few evaluations and thus minimal evidence exist on the interaction effects triggered by bringing together agricultural and social protection programmes (Tirivayi, Knowles and Davis, 2013). This review discusses the evidence that is currently available from evaluations that focus on the interaction of agricultural and social protection interventions. Based on the impact evaluation papers and reports reviewed in this paper, the mix of agricultural and social protection programmes or interventions for which some evidence exists can be roughly classified into three groups:³

- sustainable livelihoods programmes (SLPs) are single programmes with multiple components, including both agricultural and social protection interventions.⁴ This category corresponds to type 2 under the FAA (i.e. single programmes with fully integrated interventions that share the same beneficiaries).
- complementary programmes (CPs) involving the two sectors are designed and/or implemented in a somewhat coordinated and/or aligned manner.⁵ This category is

² With the term “child labour”, organizations, such as the International Labour Organization, often define work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. Engagement of children in labour activities can be difficult and demanding, hazardous and even morally reprehensible. With the survey instruments used to collect the data for these evaluations, authors did not disentangle the many kinds of work children do and following economists jargon, they use terms such as child labour child work or engagement of children in family farming or wage labour interchangeably. Therefore, in this report we also adopt this “economic” approach to the term child labour.

³ Evaluations of type 1 interventions, i.e., of sector-specific interventions are not included in this review. For a thorough review of type 1 programmes see Tirivayi, Knowles and Davis, (2013).

⁴ The most straightforward social protection component of the majority of SLPs relies on the *consumption support* component. However, other typical SLP components such as training, coaching and access to social services can also be classified as classical social protection interventions (e.g. social assistance services) adapted to the context of the typical SLP beneficiaries: the poorest of the poor with no or very weak links to formal labour markets.

⁵ Levels of coordination and alignment are better represented by a continuum that can differ at the design and implementation phases. Instruments used by governments to ensure coordination or alignment of social

a hard version of type 3, in which there is at least a partial (and intended/coordinated⁶) overlap of the beneficiaries of both programmes with a view to boosting synergies between them, such as the PSNP and the HABP in Ethiopia. Even when there is no overlap at the individual level, some programmes implemented in the same location could also be classified as CP. This includes, for example, school feeding programmes that procure food from local smallholder farmers and provide production support to these farmers (e.g. Purchase from Africans for Africa and a similar programme in Brazil as well as Bangladesh's Public Food Distribution System⁷).

- Overlapping programmes (OPs) partially overlap at the individual/household or geographical/community level in an unplanned manner. This category is a soft version of type 3. Evidence from these programmes may suggest ways to improve coherence between the two types of interventions through coordination and/or alignment. For instance, impact evaluations of rural credit and/or extension services in areas/communities where poor and vulnerable people also have access to social transfers, but not in a coordinated manner, may offer some evidence on the added value of aligning and/or coordinating the interventions (e.g. PRONAF, which provides credit for smallholder farmers, and *Bolsa Familia* in Brazil and rural credit and *Juntos*'s social transfer in Peru).

The papers and reports reviewed in this report concern the impacts of programmes that: (i) were intentionally combined, implying some degree of coordination or (ii) were implemented in the same geographic area, sometimes covering the same beneficiaries, but without any attempt at coordination. The first type includes the SLP category described above, which brings together different components of agriculture and social protection into a single intervention and the CP category, which attempts to coordinate and/or align some aspects of different programmes without including them in a single intervention. The second type – which falls into the OP category – comprises programmes where there is no coordination regardless of the existence of some overlap among beneficiaries or geographical areas covered by the interventions, which usually have different objectives and target criteria.

protection and agricultural interventions vary considerably. In some cases, combined interventions may include anti-poverty strategies and/or integrated packages that involve a large number of interventions in the same geographical area implemented by different agencies and not necessarily covering the same beneficiaries. In other cases, the CP may comprise a small set of rural development interventions that are tailored - or made available - to beneficiaries from social protection programmes. Incentive-based designs that earmark funds and/or give social protection beneficiaries preferential access to productive complementary programmes are examples of a higher level of coordination/alignment.

⁶ Note that coordination can also occur at other levels as well. However, for the purpose of evaluations, target group overlapping is a crucial requirement to provide empirical evidence of synergistic effects for household-level outcomes, as will be discussed in further detail in the last part of this introduction.

⁷ Despite their policy relevance, there are no impact evaluations for aligned programmes such as PAA Africa, PAA in Brazil and the two components of Bangladesh's Public Food Distribution system. As will be highlighted later, these are major gaps in terms of areas to be covered by robust impact evaluations. Complementary programmes that bring together livelihood support plus classical supply-side agricultural support – extension services, credit and access to improved seeds – are more likely to have robust evaluations.

1.3 Conceptual framework: pathways of impact

This review draws on the theory of change on the relationship between agriculture and social protection developed by Tirivayi, Knowles and Davis, (2013). This theory of change looks at how social protection interventions aimed at alleviating poverty and vulnerability can impact agriculture and how agricultural interventions affect risks, vulnerability and the income-generating capacities of poor people, particularly in rural areas. It is based on the agricultural household model (Singh, Squire and Strauss, 1986). The central assumption of this model is that within the context of incomplete or poorly functioning markets, consumption and production decisions are made jointly by rural households. Exposure to risks leads them to opt for low-risk/low-return activities, while market failures, liquidity and credit constraints hinder human capital investments and a lack of skills and knowledge on agricultural technologies, inputs and factors of production limits agricultural production. Agricultural and social protection interventions can play a vital role in alleviating these constraints and mitigating these risks for rural households through two key pathways.

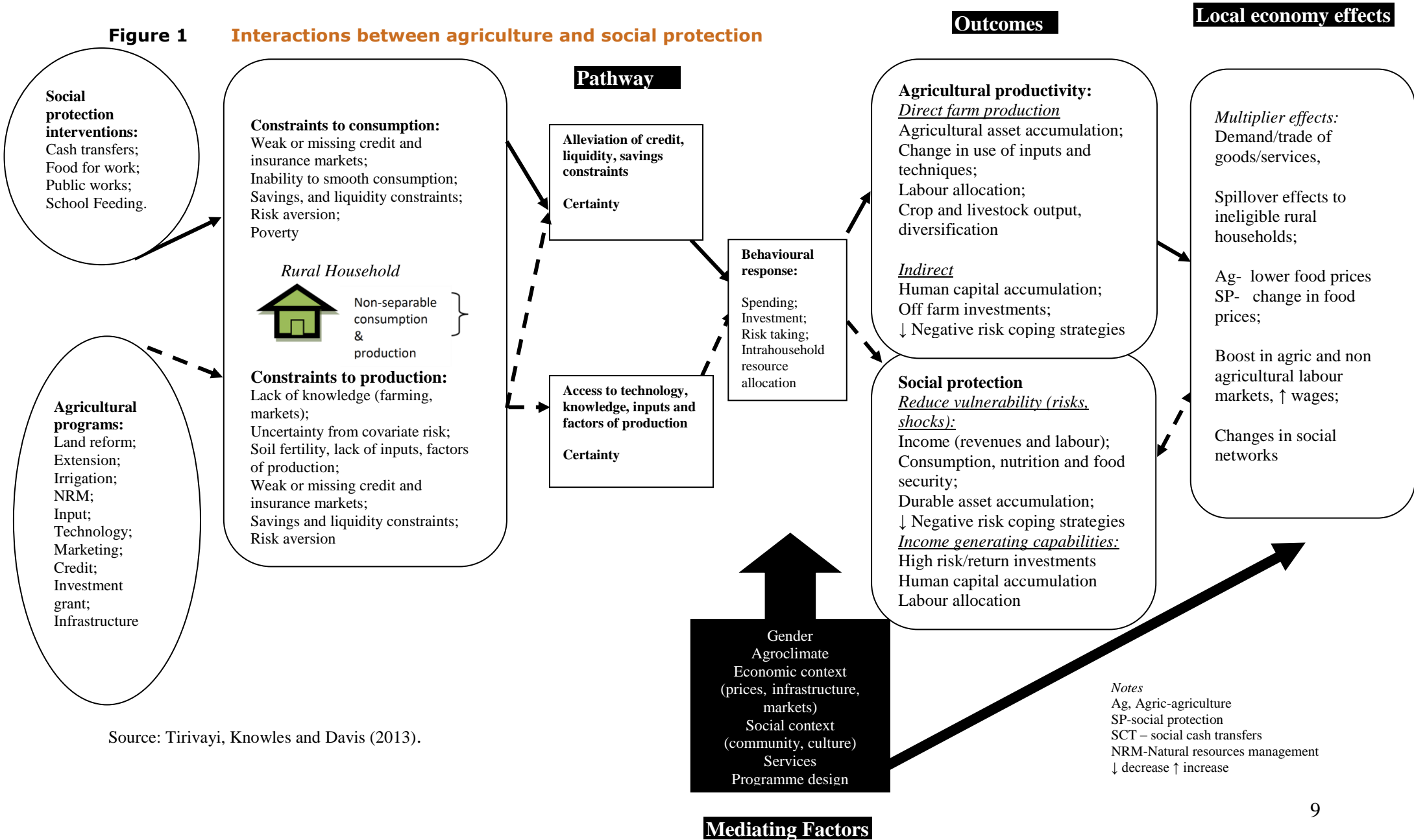
As shown in Figure 1 and described below, agricultural and social protection interventions may affect households by alleviating credit, savings and liquidity constraints and providing certainty. A third pathway specific to agricultural interventions enables access to technology, knowledge, inputs and factors of production.

- Alleviation of credit, savings and liquidity constraints: Social protection interventions, such as cash transfers, can improve savings and alleviate credit constraints (Barrientos, 2012). They can also improve liquidity, which may encourage risk-taking and productive investments such as the purchase of inputs (Dercon, 1996). Agricultural interventions, such as microcredit and input subsidies, may also alleviate credit constraints and enable investments that can improve farm productivity and ultimately raise household welfare.
- Certainty: Predictable social protection interventions can increase certainty and security, acting as insurance against risks, particularly those related to weather shocks in contexts where small family farmers lack formal insurance. Agricultural interventions (e.g. irrigation, crop insurance) can also increase certainty and security and allow rural households to invest in high-risk and high-return crops.
- Increased access to technology, knowledge, inputs and factors of production: Productivity-enhancing agricultural interventions, such as input subsidies and grants, input technologies (e.g. seed varieties, fertilizer), natural resource management techniques, land tenure reforms, marketing arrangements and macroeconomic reforms (e.g. price liberalization), can all boost production and income. Similar results can be achieved through investment in infrastructure. In addition, institutional/government procurement can increase access to local markets and market information, and farmer field schools and extension services

enhance access to agricultural knowledge and skills, which may also increase production and income and reduce vulnerability.

Figure 1 also shows that the pathways of impact for agricultural and social protection interventions trigger behavioural responses that determine the direction and magnitude of impacts. These include spending behaviour, risk-taking behaviour and intra-household resource allocation. First, households participating in agricultural and social protection interventions that provide predictable income transfers will have the flexibility and confidence to spend more on agricultural assets. Second, households may avoid taking risky actions that undermine longer-term livelihoods sustainability, such as distress asset sales, school dropout, child labour and food rationing. Finally, both agricultural and social protection interventions trigger changes in intra-household resource allocation, for example, either by decreasing adult labour supply (due to the income effect) or by increasing it as a result of new investments in on-farm and non-farm ventures and better nutrition.

Figure 1 Interactions between agriculture and social protection



Source: Tirivayi, Knowles and Davis (2013).

1.4 Evaluation challenges and research gaps

The synergistic effect of bringing together agricultural and social protection interventions is multiplicative rather than simply the sum of the positive impacts that each programme can have in isolation. Thus, this effect can be thought of as *an interaction terms of a linear regression framework that makes a positive contribution to the outcome by either boosting positive outcomes or by mitigating negative ones*. This definition is important since this review focuses on the results of quantitative impact evaluations of agricultural and social protection interventions with very different evaluation designs. In most cases, despite assessing combined interventions, the evaluations do not try to measure the interaction effects but focus solely on the overall impact, as in the case of most SLP impact evaluations, or just consider the additional impact of introducing a CP.⁸ Thus, a major challenge facing the review team was the lack of evaluations whose design allowed disentangling and understanding the multiplicative and additive effects of agricultural and social protection interventions.

In the case of SLPs, where experimental designs⁹ have been more prevalent, the same clients benefit from agricultural interventions and social protection transfers and almost none of the evaluations considers the effect of each component (e.g. consumption support, asset transfers, training, coaching, etc.) or assesses the existence of synergies between them. As for CPs, the degree of individual/household overlap varies considerably depending on the strategy used to implement them, e.g. concentrating complementary programmes in the same geographic areas; giving the beneficiaries of one programme preferential access to the other, etc.

Most evaluations of CPs tend to focus on the main sectoral programme, thus the outcome of interest ends up being either the impact on social protection beneficiaries of participating in an agricultural intervention or the impact of participating in a social protection programme for beneficiaries of rural development or agriculture programmes. The capacity to capture synergistic effects depends largely on the evaluation design allowing the identification of all relevant treatment groups. In the absence of the conditions to implement an evaluation that randomizes access to both types of interventions and their overlap, most rely on quasi-experimental methods¹⁰ that sometimes are quite limited in their ability to identify credible

⁸ In this case, one would estimate the additional impact of the complementary programme on the existing intervention, but not the impact of the complementary programme alone. Thus, one cannot be sure about the existence of a multiplicative (synergistic) effect as opposed to simply an additive one.

⁹ Experimental design consists in randomly assigning eligible units for a programme or intervention into a treated/beneficiary group that will receive the treatment immediately, and a control/comparison group that will receive the programme at a later stage (after the end of the evaluation) or that will never receive the treatment. This methodology, also known as randomized control trial (RCT), is the most robust evaluation methodology as it generates treated and control groups that, on average, will have the same observed and non-observed characteristics. This procedure solves the problem of selection bias that plagues most non-experimental evaluations, allowing the evaluator to estimate the best counterfactual in the absence of the programme and hence the actual effect of an intervention.

¹⁰ Quasi-experimental methods are used when it is impossible to randomize the eligible population into treated and control groups. It intends to find a comparison group that is as similar as possible to the treated group and uses econometric techniques (e.g. matching methods, difference-in-differences, fixed and random effects models, instrumental variables, regression discontinuity design, etc.) to control for selection bias and estimates a credible counterfactual to measure the impacts of a programme.

control groups and to account for all treatment possibilities (e.g. social protection only, agricultural intervention only, both social protection and agricultural interventions).

In order to identify control groups, evaluators oversample potential beneficiaries of both programmes before conducting evaluation surveys with all households in treated areas. In other cases, treated households are sampled from a list of actual beneficiaries and a comparison group is identified among the non-treated in the same location or in similar locations where the programmes have not been implemented using matching techniques. Often, evaluators use the administrative records from the main sectoral programme to select a sample of the treated group and the overlap with the complementary programme is determined by the survey response of the sample. In a few fortunate cases, evaluators can even merge administrative records of the different programmes, identifying all treated groups (including the overlap) at the evaluation and sampling design phase, which greatly enhances the quality of the evaluation.

Evaluations of OPs tend to be based on secondary data only (e.g. agricultural censuses or other regular multipurpose surveys), which sometimes lack a proper baseline and, in most cases, cover too limited a set of outcome indicators to be informative about the impacts of agricultural and social protection programmes.

Another major issue is that the evaluations available to the review team tend to concentrate mostly on agricultural and social protection interventions that overlap at the household/individual level rather than at the community/geographical area. Thus, community and/or local economy outcomes are rarely considered. The ability of evaluations to look at these outcomes is further limited by a focus on the average treatment effect on the treated (or on the intention to treat¹¹), which means that in many cases the evaluation surveys only collect data from a sample of eligible households (treated and control groups). When data on non-eligible households is gathered, it is used to assess the targeting performance¹² of the programmes rather than to evaluate spillover effects and/or externalities on non-eligible households and/or in the local economy.

To our knowledge, there are no impact evaluations of CP or OP agricultural and social protection programmes that target different populations in the same location. Designing and implementing an evaluation of this nature seems far more challenging than the usual assessment of combined programmes that target the same population. Such an approach would require randomizing geographical areas that access (or not) some of the aligned programmes and/or introducing the programmes in different areas, which might be difficult to achieve when different sectoral ministries/organizations are involved. Moreover, it would be necessary to collect detailed data on business activities in the communities with questions that go beyond the standard household survey. Thus, the impacts of aligned programmes that affect different target populations in the same community (e.g. agricultural interventions for

¹¹ The intention to treat is based on the *ex ante* treatment group assignment, regardless of actual take-up or compliance rates or *ex post* treatment status.

¹² Usually non-eligible households are only part of the evaluation sampling in the baseline survey, since their data will only be used to assess targeting performance. Given budget restrictions it would not make sense to interview them in the follow-up surveys if the focus of the evaluation is the average effect of the programme on the treated.

better-off farmers and public works and social cash transfers for the poorest) are mostly not covered in the literature, leaving many questions unanswered about the local economic and community-level impacts of SLP, CP and OP categories of intervention.

A methodological alternative to gauge the impact of CPs or even OPs is to link computable general equilibrium models (CGE) with impact evaluation surveys in which it is possible to establish the economic interaction between eligible (treated and control) and non-eligible households in the intervention areas. Taylor *et al.* (2014a) explain how the Local Economy-wide Impact Evaluation (LEWIE) methodology has been used to evaluate the local economic impact of several social cash transfers programmes (single interventions) in sub-Saharan Africa. This methodology uses the information collected through the baseline surveys for impact evaluation. This provides the LEWIE with the micro-level focus necessary to simulate the impacts of social transfers in the local economy. The results of these evaluations show that most spillover benefits accrue to non-eligible households, which have more access to productive assets and are better connected to markets, enabling them to benefit from the multiplier effects of the injection of cash.¹³ Thome *et al.* (2016) argue that differences in the nominal multiplier effect of social cash transfers across countries or even within a country are largely due to targeting, expenditure patterns, business composition, production function and market integration. Nevertheless, it is the local supply elasticity, (i.e., the capacity of the local supply to respond to expansion in demand) that mostly determines whether inflationary pressures will erode the real value of the transfers, minimizing the local-economy multiplier effect in the short run.

These considerations highlight the importance of agricultural interventions that aim at increasing the capacity of better-off farmers and traders (who are not eligible for social protection programmes) to ensure a swift supply-side response to the increased demand triggered by social cash transfers, without overlooking other interventions that could enable worse-off beneficiary farmers and traders to accumulate productive assets so that they can also profit from spillover effects of the social cash transfers.¹⁴

One of the few attempts to look at this issue used a macro-level CGE model for Cambodia developed by Levy and Robinson (2014) to simulate the impact of a large social protection intervention in a small economy with market imperfections and weak market integration between rural and urban areas. They found that even if beneficiaries invest part of the transfer in productive activities and assets, the cash transfer intervention would not be able to overcome the distortion of domestic markets (e.g. price increases, particularly for agriculture produce). However, combining large cash transfers with productive investments in agriculture (e.g. rural infrastructure, irrigation and inputs) reduces the inflationary effects of the cash transfer, as food-crop production increases and imports are reduced, suggesting

¹³ See Kagin *et al.* (2014) for Ethiopia; Thome *et al.* (2014) for Ghana; Taylor *et al.* (2013) for Kenya; Taylor *et al.* (2014b) for Lesotho, Thome *et al.* (2015) for Malawi; and Taylor *et al.* (2014c) for Zimbabwe.

¹⁴ The implementation of SLPs in tandem with social cash transfers has become a recent trend largely inspired by the positive evaluations of the Challenge the Frontiers of Poverty Reduction (CFPR) methodology developed by the Bangladesh NGO BRAC. The idea is that social cash transfers work as the consumption support component of the SLP, thus turning it into a CP type of combination. This approach has been piloted in Ethiopia and Peru as will be discussed elsewhere in this paper.

strong complementarities between both approaches. Applying this type of analysis to multiple interventions using a LEWIE model seems a promising avenue to evaluating CP and OP interventions that do not (necessarily) target the same population and whose impact would be more relevant (and visible) at the local economy than at the macro-level.¹⁵

1.5 Outline of the paper

The section that follows describes the methodology used to select the studies reviewed in this paper. The third section of the paper assesses the main characteristics of the selected studies with regard to their design and methodological details, including a discussion on the outcomes that are relevant for this review. The fourth section discusses the main characteristics of the programme combinations being assessed. The fifth section presents and discusses the main results of the impact evaluations regarding the outcomes of interest. The conclusion summarizes the main findings and proposes a research agenda that could help to identify the synergistic effects of agricultural and social protection interventions.

¹⁵ This is particularly important in the African context, given the low levels of coverage of the social protection programme, especially when compared to the LAC social transfers.

2. Methodology of the literature review

2.1 Search strategy

The literature search for this review blended three strategies: a snowball approach, a bibliographic database search and a hand search. The snowball approach involved consulting key experts with experience in evaluating agricultural and social protection interventions and knowledgeable about papers or evaluation reports concerned with the combined effect of both types of interventions. Further, we screened the reports suggested by these experts to identify additional papers that would be helpful for the review. The bibliographic database search involved applying pre-defined search strings and inclusion/exclusion criteria to Google Scholar and the JSTOR academic journal database, as well as to selected journals, namely the Journal of Development Effectiveness, Journal of Development Studies, and Economic Development and Cultural Change. We used the same approach to search the websites of relevant institutions in this field (e.g. FAO/PtoP, IFAD, WFP, IFPRI, ODI, IDS, IPC-IG, World Bank, IDRC, J-PAL, 3ie, OPM and IDRC).

The search protocol allowed for the inclusion of papers and evaluation reports produced after 1990 and written in English, Spanish, Portuguese or French. However, no paper/report written in Portuguese or French was selected after applying the other filters described below. In order to be selected for review, impact evaluations had to be based on robust impact evaluation methodologies with an adequate identification strategy, including the definition of a clear comparison group and a counterfactual. Accepted methodologies included both experimental (randomized control trials) and non-experimental (e.g. difference-in-differences, propensity score matching, regression discontinuity design, generalized propensity score and instrumental variables) designs.

The search strings were classified around the following categories:¹⁶

- populations of interest: rural poor and vulnerable populations living in Latin America and the Caribbean, Asia, Africa and Eastern Europe;¹⁷
- agricultural and social protection interventions:
 - agricultural interventions: rural development, access to markets, natural resources management, distribution of improved seeds, fertilizer subsidies (vouchers), extension services, subsidized credit, investment grants, asset (livestock) transfers and homestead gardening;¹⁸
 - social protection interventions: social cash transfers (including CCTs, CTs and social pensions) and public works, as well as other broad categories that are not always classified as social protection such as asset transfers,

¹⁶ Table A.0 lists the search strings per categories in the Appendix

¹⁷ No paper was identified for the Eastern European region.

¹⁸ Note that besides traditional agricultural interventions such as rural credit and extension services, we also included components that are at the core of livelihoods and rural women empowerment interventions such as homestead gardening and livestock transfers. For the purpose of this review these are classified as agricultural interventions.

home-grown school feeding programmes, microfinance and weather-based crop insurance;

- outcomes of interest: income, expenditure/consumption, asset or wealth indices, poverty, purchase and use of inputs such as fertilizers, investment in productive assets including land and livestock, labour market participation and occupational choices, hours of work, private transfers, sources of income, food security and indicators for involvement in social networks and social participation.

2.2 Search findings

The snowball approach and the manual-search of selected Web sites yielded most of the publications analysed here. The search revealed few papers that looked specifically at the interaction between agricultural interventions and social protection programmes. Moreover, as shown in Table A.1 in the appendix to this review, more than 50 percent of the evaluation reports/papers considered in this review were conducted during 2015 or 2016. The oldest evaluation dates from 2009. Thus, many of the papers reviewed are still in the format of evaluation reports, working papers or forthcoming book chapters or papers in peer-reviewed journals and/or chapters in recently launched books. It is also important to highlight that this review does not claim to be exhaustive and some relevant papers may have escaped the searches described above.

Expert feedback has confirmed the review team's initial finding that literature on the impact evaluation of combined agricultural and social protection interventions is thin. Two main factors may explain why. First, while programmes in the agricultural and social protection sectors have similar goals in terms of reducing hunger and poverty, they tend to use different strategic approaches and to cover somewhat different target populations in rural areas. Agricultural interventions tend to focus more on commercial farmers while social protection programmes focus on vulnerable subsistence farmers. The institutional partners in these sectors differ as well. Agricultural ministries are prone to coordinate their policies and programmes with agencies responsible for trade, land and natural resources whereas ministries responsible for social protection programmes are more likely to liaise with social sector agencies in charge of health and education programmes (Slater *et al.*, 2016).

Second, even when sectoral programmes are designed and implemented in a coordinated manner, robust impact evaluations (particularly experimental ones) are rarely included at the design phase. Moreover, challenges around the implementation of the combined programme components may jeopardize the impact evaluation design. The risks of contamination of the comparison group and low uptake and/or drop-out rates among beneficiaries may threaten the internal and external validity of the evaluations. It is not surprising, therefore, that most experimental and even some quasi-experimental evaluation strategies actually report "intention-to-treat" estimates (ITT) rather than the "treatment-on-treated" estimates. A lack of coordination at the programming level between different sectoral implementing agencies can partially explain why there are fewer experimental evaluations to estimate the impact of combined programmes (CP and OP types).

The literature search identified 35 papers, book chapter or reports that assess the impact of combined agricultural and social protection interventions using acceptable identifying assumptions and impact evaluation methodologies.¹⁹ However, the number of evaluations covered in these products is actually larger, as one of the papers describes evaluation results from pilot programmes that took place in six different countries across Asia, Africa and Latin America. Treating each evaluation discussed there as an individual case yields 40 evaluations. At least one of the evaluations described in that paper was also reported in a standalone working paper²⁰ that was also identified in the search. In addition, there were cases of two versions of the same paper found in the search: a final journal version and a previous working paper version. In broad terms, the published papers differ slightly from the working paper versions. The working papers tend to cover a larger set of indicators while the journal articles report additional robustness checks based on the use of alternative methodologies.²¹

¹⁹ An identifying assumption is an assumption made about the data generating process that allows the researcher to draw causal inference.

²⁰ Banerjee *et al.* (2011) discuss the main findings of the evaluation of the Targeting the Hard-Core Poor programme implemented by the Bandhan NGO in West Bengal India. The results of the evaluation are also included in Banerjee *et al.* (2015), thus the earlier paper is not included as a separate evaluation in this review. Bandiera *et al.* (2016)'s evaluation of the CFPR in Bangladesh is not counted as an additional evaluation, but as it looks at different outcomes in relation to Bandiera *et al.* (2013), it is counted as a different paper. For example, it includes other dimensions such as spillover effects and reframes some outcomes, particularly with a view to comparing their results with those reported in Banerjee *et al.* (2015). We will report on both papers during the discussions, but will count them as a single evaluation as methodology and database are actually the same.

²¹ Das and Misha (2010) and Raza, Das and Misha (2012) are basically the same evaluation, which differ with regard to the outcomes covered – there is a more comprehensive set in the first paper – and the methodologies used – difference-in-differences in the first paper and difference-in-differences with propensity score matching in the second. Emran, Robano and Smith (2009) and Emran, Robano and Smith (2014) are also the same evaluation reported in two different papers. Emran, Robano and Smith (2014) was published in the Economic Development and Cultural Change Journal whereas Emran, Robano and Smith (2009) corresponds to its working paper version (Department of Economics of George Washington University). The only major difference is that the working paper version has a quantile analysis of the impact of the CFPR Phase 1 on income, which is not reported in the journal version. Results for these papers will be reported jointly, hence they will not be counted twice.

3. Which combined programmes have been evaluated?

In this section, we present the selected papers and reports and describe the main features of the evaluated programmes based on the three categories presented in the introduction. We have opted to use a regional classification to describe the programmes due to the strong association between regions and certain categories of programmes and instruments. As per the selected evidence, in Asia, SLPs seem to be most prevalent whereas in Latin America and the Caribbean, CPs that focus on CCT programmes and productive inclusion interventions seem to dominate. In Africa, there is a more balanced mix of programme categories with a somewhat smaller number of evaluations.

3.1 Geographical distribution of evaluations

Details on the regional and country distribution of the 37 evaluations reviewed in this paper can be found in Table 1. About 46 percent of the evaluations (17) are based on programmes in Asia, 30 percent (11) in Latin America and 24 percent from Africa (9). The overrepresentation of Asian programmes is largely explained by the numerous evaluations of the Challenging the Frontiers of Poverty Reduction (CFPR) programme of the Bangladeshi non-governmental organization BRAC. The key objective of CFPR is to graduate rural families from extreme poverty and prepare them to participate in microfinance programmes also implemented by BRAC. The CFPR merges agricultural (e.g. productive asset distribution and training to manage that asset) and social protection interventions (e.g. cash transfers for consumption-smoothing and access to health services) in a single programme, making it a typical case for the SLP category.

During its Phase 1 and Phase 2, the CFPR programme had a strong impact evaluation component largely led by the research division of BRAC.²² The positive results of these evaluations inspired similar programmes in Bangladesh such as the Chars Livelihoods Programme (CLP), Enhancing Resilience Plus (ER+) and Food Security for the Ultra Poor (FSUP). All of these programmes have been included in this review.²³ Finally, for this review we selected the evaluation of the CARE Bangladesh's SHOUHARDO project undertaken by Smith *et al.* (2013). This project consists of multiple interventions targeting maternal child health and nutrition, women's empowerment, poverty and food insecurity alleviation, disaster mitigation response and empowerment of the poor.

²² Evaluations of CFPR Phase 1 selected for this review include Ahmed *et al.* (2009), Emran, Robano and Smith (2014) Raza, Das and Misha (2012), Krishna, Poghosyan and Das (2010) and Misha *et al.* (2014). Evaluations of CFPR Phase 2 used in this review include Raza and Ara (2012) and Bandiera *et al.* (2013).

²³ HTPSE Limited (2011), Hernandez *et al.* (2015) and BDI (2012) have evaluated CLP Phase 1, the ER+, and the FSUP, respectively.

Table 1 Regional distribution of evaluations included in the review

Country		N	%
ASIA		17	46
Bangladesh	CFPR Phase 1: Ahmed <i>et al.</i> (2009); Emran, Robano and Smith (2014); Raza, Das and Misha (2012); Krishna, Poghosyan and Das (2010); Misha <i>et al.</i> (2014); CFPR Phase 2: Raza and Ara (2012); Bandiera <i>et al.</i> (2013, 2016); Raza and Van de Poel (2016) CLP Phase 1: HTPSE Limited (2011); ER+ : Hernandez <i>et al.</i> (2015); FSUP: BDI (2012); SHOUHARDO: Smith <i>et al.</i> (2013).	12	32
India	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015); Graduation into Sustainable Livelihoods: Bauchet, Morduch and Ravi (2015); Indira Kranti Patham (IKP): Prennushi and Gupta (2014).	3	8
Pakistan	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015)	1	3
Vietnam	P-135 II : IRC (2012)	1	3
LATIN AMERICA		11	30
Peru	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015); <i>Juntos</i> and <i>Sierra Sur</i> : Aldana, Vásquez and Yancari (2016); <i>Juntos</i> and Rural credit: Del Pozo (2014); <i>Juntos</i> and <i>Waku Wiñay</i> : Escobal and Ponce (2016a, 2016b)	4	11
Brazil	<i>Bolsa Familia</i> and PRONAF: Garcia, Helfand and Souza (2016)	1	3
Chile	IEF and Fosis's productive support: Fernandez <i>et al.</i> (2016)	1	3
Colombia	<i>Familias en Acción</i> and <i>Oportunidades Rurales</i> : Moya (2016)	1	3
Honduras	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015)	1	3
Mexico	<i>Oportunidades</i> and PROCAMPO: Naude <i>et al.</i> (2016)	1	3
Nicaragua	<i>Atención a Crisis</i> and complementary programmes: Macours, Premand and Vakis (2012)	1	3
El Salvador	<i>Comunidades Solidarias Rurales</i> and rural development interventions: De Sanfeliú, Angel and Shi (2016)	1	3
AFRICA		9	24
Ethiopia	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015); PSNP + OFSP/HASP Gilligan, Hoddinott and Tafesse (2009); Hoddinott <i>et al.</i> (2012); Nega <i>et al.</i> (2010).	4	11
Uganda	Women's Income Generation Support – WINGS: Blattman <i>et al.</i> (2014)	1	3
Ghana	Graduation into Sustainable Livelihoods: Banerjee <i>et al.</i> (2015)	1	3
Lesotho	Child Grant Programme and Linking Food Security and Social Protection: Dewbre <i>et al.</i> (2015)	1	3
Malawi	Social Cash Transfer Programme and Farm Input Subsidy Programme: Pace <i>et al.</i> (2016)	1	3
Burkina Faso	Local Education Assistance and Procurement project (LEAP): integrating local procurement into a longstanding school feeding programme: Upton <i>et al.</i> (2012)	1	3
Total		37	100.0

Source: authors' own elaboration.

The BRAC CFPR intervention has also influenced programmes in other parts of the world. For the purposes of this review, the evaluation of the pilots of the Graduation into Sustainable Livelihoods programme supported by CGAP and the Ford Foundation²⁴ are particularly relevant. Two out of three evaluations for India are based on these pilots, one of which is reported in Banerjee *et al.* (2015) and the other in Bauchet, Morduch and Ravi (2015). The third evaluation, Prennushi and Gupta (2014), concerns the impacts of the Indira Kranti Patham (IKP) programme in Andhra Pradesh, a women's empowerment and rural livelihoods multiple intervention programme. IRC (2012) evaluates the P-135 II, a poverty reduction programme that targeted ethnic minorities and isolated areas in Vietnam. Finally, another pilot of the Graduation into Sustainable Livelihoods project in Pakistan has its results discussed in Banerjee *et al.* (2015).

Four out of 11 evaluations set in Latin American and the Caribbean countries (LAC) are concentrated on Peru.²⁵ This is largely explained by the high priority given by the Peruvian government to improving coordination between social protection programmes, in particular its conditional cash transfer (CCT) programme, *Juntos*, which is only implemented in rural districts, and a range of economic inclusion programmes with a strong focus on rural development and entrepreneurship. Other evaluations of the combined effects of CCTs and agricultural interventions are available for Brazil, Chile, Colombia, El Salvador, Mexico and Nicaragua.

It is worth noting that six of the LAC evaluations relate to the IFAD-supported *Sinergias Rurales* (Rural Synergies) project (<http://www.sinergiasrurales.info/>) whose research component aims to evaluate synergies between CCT programmes and rural development programmes that target poor family farmers.²⁶ Two evaluations come from Nicaragua, where Macours, Premand and Vakis (2012) studied the combination of a CCT programme (*Atención a Crisis*) with two alternative "productive" interventions, namely, investment grants and training, and one evaluation comes from the Honduras with another pilot of the Graduation into Sustainable Livelihoods reported in Banerjee *et al.* (2015).

Finally, most available evaluations in Africa focus on Ethiopia's Productive Safety Net Programme (PSNP) and its links with agricultural interventions, such as the Other Food Security Programme (OFSP) and Household Asset Building Programme (HABP). Besides the four evaluations from Ethiopia,²⁷ another five evaluations for African countries

²⁴ For more information on these pilots, see <http://www.microfinancegateway.org/topics/graduation-sustainable-livelihoods>.

²⁵ Aldana, Vásquez and Yancari (2016) and Escobal and Ponce (2016b) assess CP combinations whereas Del Pozo (2014) assesses an OP. The fourth evaluation is one of the pilots reported in Banerjee *et al.* (2015), thus an SLP combination. All evaluations from Peru involved the CCT programme *Juntos* on the social protection side.

²⁶ Garcia, Helfand and Souza (2016) for Brazil, Naude *et al.* (2016) for Mexico and De Sanfeliú *et al.* (2016) evaluate programme combinations that fall into the OP category, whereas Aldana, Vásquez and Yancari (2016) for Peru; Moya (2016) for Colombia, and Fernandez *et al.* (2016) for Chile assess CP combinations.

²⁷ Nega *et al.* (2010), Gilligan, Hoddinott and Tafesse (2009) and Hoddinott *et al.* (2012) looked at the impacts of the public work components of the PSNP combined with agricultural interventions (OFSP/HABP). Banerjee *et al.* (2015) reported on the results of the pilot Graduation into Sustainable Livelihoods project that in the case of Ethiopia was implemented among PNSP beneficiaries.

were selected for review. Blattman *et al.* (2014) look at a sustainable livelihoods programme in Uganda meant to diversify the sources of income of the young rural population, with a focus on young women. Banerjee *et al.* (2015) report the results of the Ghana pilot of the Graduation into Sustainable Livelihoods programme. Dewbre *et al.* (2015) present the results of an evaluation of the joint implementation of the Linking Food Security and Social Protection programme (LFSSP), which provided training on homestead gardening and free vegetable inputs, and the Child Grants Programme (CGP), a social cash transfer, in Lesotho. Pace *et al.* (2016) look at the synergies between the Social Cash Transfer Programme (SCTP) and the Farm Input Subsidy Programme (FISP) in Malawi. Upton *et al.* (2012)²⁸ look at the impact of local food procurement from smallholder farmers linked to a long running school feeding programme in Burkina Faso.

In the next section of the review, we offer an overview of the combined programmes assessed in the 35 evaluation papers and reports, highlighting the agricultural and social protection components of these programmes as well as the coherence of the programme design²⁹.

3.2 Programmes that combine agricultural and social protection interventions in Asia

Table 2 shows that the agricultural and social protection interventions in Asia selected for this review are dominated by the SLP category. The CFPR model developed by BRAC³⁰ to support the livelihoods of the ultra-poor in rural Bangladesh can be singled out as the major source of inspiration for combined programmes in the region. This model consists of a 24-month intervention targeted at extremely poor but able-bodied women, mostly from rural areas. Beneficiaries are identified among the ultra-poor through a community-based participatory process based on wealth rankings and further refined through clear inclusion and exclusion criteria.³¹ The CFPR is a single programme with multiple components that aims to prepare ultra-poor women to have sustainable livelihoods and, after graduating from the programme, to benefit from microcredit interventions also developed by BRAC.

²⁸ The results reported in this working paper (mimeo) have been published in Harou *et al.* (2013). The latter also looks at local procurement in Guatemala but in an emergency context and not linked to a school feeding programme, thus only the Burkina Faso case study is reported here and for that reason priority was given to the working paper version.

²⁹ Table A.2 in the appendix depicts the combined programmes, which include both agricultural and social protection interventions, assessed through the 37 evaluations selected for this review. In addition to the information presented in the main text, the table includes some key features such as the target population, number of beneficiaries, implementers and government units involved in the programme. Note that the same programme may be listed more than once when there is more than one combination assessed by different evaluations.

³⁰ The CFPR is also known as Targeting the Ultra Poor (TUP) due to the methodology it uses to target ultra-poor households through participatory wealth ranking. For an overview of the programme and its methodology, refer to its website: <http://tup.brac.net/>.

³¹ The exclusion criteria are: a) lack of able-bodied working age women in the household; b) participation in microfinance projects; and c) recipient of government benefits; the inclusion criteria are a) ownership of less than 10 decimals of land (1 decimal = 40.5 m²); b) the main source of income is female begging or working as domestic servant; c) female-headed household, i.e. no active male adult in the household; d) school-age children working; and e) no productive or income-generating asset in the household.

Table 2 Programmes that combine agricultural and social protection interventions in Asia

Programme	Country	Agricultural intervention	Social protection intervention	Category	Coordination
CFPR 2002-2006 (Phase 1) 2007-2011 (Phase 2)	Bangladesh	Productive asset transfer. Intensive training sessions and coaching	Cash transfer		Fully coordinated (single programme)
Enhancing Resistance (ER)+ (2011-2013)	Bangladesh	Investment grant Entrepreneurship training and coaching	Public works (ER) and cash transfer in the 3rd year	SLP and CP	Fully coordinated. livelihoods component as an add-on to the public works programme that existed before (ER)
Food Security for the Ultra Poor (FSUP) (2009-2012)	Bangladesh	Investment grant Entrepreneurship, vocational and disaster risk management trainings and nutritional and life skills	Cash transfer		Fully coordinated (single programme)
CLP (Phase 1) (2004-2010).	Bangladesh	Investment grant and promotion of homestead gardening	Cash transfers; public works and health counseling	SLP and CP	Fully coordinated livelihoods dimension (plus infrastructure development at community level)
SHOUHARDO Project	Bangladesh	Homestead development (vegetable production, livestock, etc.) and income-generating activity (agriculture and livestock) training	Food assistance (for pregnant and nursing mothers and children 6-24 months) and food and cash for work	CP	High level of coordination of multiple and separate interventions in targeted areas and priority households
Graduation into Sustainable Livelihoods	Pakistan	Asset transfer training and coaching	Cash transfer	SLP	Fully coordinated (single programme)
Graduation into Sustainable Livelihoods	India (Bradhan)	Asset transfer training and coaching	Cash transfer	SLP	Fully coordinated (single programme)
Graduation into Sustainable Livelihoods	India (SKS)	Asset transfer training and coaching	Cash transfer	SLP	Fully coordinated (single programme)

Indira Kranti Patham + NREGA (2004-2008 – Phase 1)	India	Investment/seed funds, access to low-cost credit,	Access to existing social safety net programmes	CP	Some coordination (but multiple programmes for multiple clients – demand based)
		savings, training in social and economic skills, as well as on livelihoods			
P135-II	Vietnam	Agricultural support: skills and training for ethnic minorities. It includes extension services, demonstration models and distribution of agricultural inputs	Access to social services	CP	Some coordination (multiple interventions in same geographical area)
		training			

Source: authors' own elaboration.

The core components of the CFPR include an asset transfer - mostly of livestock - coupled with training on how to make this asset a source of regular income and followed by intensive coaching (frequent visits) to support beneficiaries. The training and coaching components resemble rural extension services and have been adapted to the profile of the CFPR beneficiaries, who have very low literacy rates. Training focuses on livestock rearing, vegetable cultivation and horticulture nursery (See Table A.2 in the Appendix). As such, we can consider this training an agricultural intervention. However, it can also be seen as productive support in the form of an active labour market policy,³² a classic social protection component as much as the temporary cash transfer provided by CFPR (known as consumption support in the programme design). By giving cash in the hands of the women, the transfers aim at avoiding the depletion of the assets, as well as promoting access to basic health care. The CFPR Phase 1 reached around 100 000 beneficiary women from 2002 to 2004 and, during Phase 2, aimed to reach 370 300 women from 2007 to 2011.

The CFPR experience largely inspired three other programmes implemented in Bangladesh: the Chars Livelihoods programmes (CLP),³³ Food Security for the Ultra-Poor (FSUP)³⁴ and Enhancing Resilience Plus (ER+).³⁵ Unlike CFPR, which did not involve government institutions in implementation, the CLP and the ER+ involved the Ministry of Local Government, Rural Development and Cooperatives. In the case of the ER+ and the FSUP, the World Food Programme (WFP) was a key stakeholder in implementation. There were

³² Training can be seen as a component meant to protect the vulnerable against livelihood risks, and thus can be also classified as social protection as per the definition presented in the Introduction.

³³ For more information about the CLP, see the website: <http://clp-bangladesh.org/work/overview/>.

³⁴ More information on Food Security for the Ultra-Poor can be found at: <http://www.wfp.org/content/wfp-food-security-ultra-poor-fsup-outcome-survey-report-bangladesh-2012>.

³⁵ For more information on the Enhancing Resilience+ programme, go to: <http://www.mrfcj.org/pdf/case-studies/2013-04-16-Bangladesh.pdf>.

also financial contributions from several bilateral cooperation agencies to support the programmes, suggesting that the approach has become somewhat popular in the development community. For instance, DFID funded the Chars Livelihoods Programme (CLP) Phase 1, while DFAT (formerly AusAID) funded Phase 2. This review only discusses the findings of CLP Phase 1, as the evaluation of Phase 2 did not meet the criteria used to select evaluation papers/reports.

CLP Phase 1 covered 90 684 beneficiaries, only 55 000 of which received the whole intervention package. Beneficiaries entered the programme in a staggered manner from 2006 to 2009, divided into four entry cohorts. CLP targeted poor and vulnerable families living in the riverine areas of five districts of Northern Jamuna, Bangladesh. Women were the main recipients of the 18-month intervention package. This included an investment grant of around BDT³⁶ 13 000-17 000 for the purchase of productive assets, a monthly cash transfer of BDT 350-600 to smooth consumption over a period of 12 months,³⁷ promotion of homestead gardening (lifting it above flood level), a public works component, health counselling and community-level upgrading of water and sanitation.

The FSUP reached 30 000 women in eight upazilas³⁸ in the districts of Sirajganj, Bogra and Pabna from 2009 to 2012. Beneficiaries received a monthly cash transfer of BDT 500 over a 24-month period and twice this value during the two months of the lean season. In addition they also received a BDT 14 000 grant to cover the initial investment in an income-generating activity such as bull fattening, crop cultivation, poultry or goat rearing. Beneficiaries also received general training in entrepreneurship skills, followed by specialized training on their chosen business activity as well as on disaster risk reduction and nutrition and life skills.

The ER+ built on a previous two-year programme, Enhance Resilience (ER), whose major components were public works (labour-based activities) and training sessions focusing on disaster risk reduction. The ER+ component followed the CFPR model, targeting women that participated in the ER or were wives of male ER beneficiaries. The ER+ consisted of a 12-month intervention that offered group-based entrepreneurial skills training after which beneficiaries selected an income-generating activity. After their business plan was approved, they were offered an investment grant of BDT 12 000 and received regular coaching visits. Over 12 months, the beneficiaries also received a cash transfer of BDT 500 per month. The ER+ reached 18 000 women from 2011 to 2012.

The influence of the CFPR model reached well beyond Bangladesh, largely due to the CGAP/Ford Foundation Graduation into Sustainable Livelihoods project. The project adapted the CFPR model to conduct pilot activities in two sites in India: West Bengal where the activities were implemented by the NGO Bandhan and reached 512 households; and in Andhra Pradesh, where they were carried out by SKS, another NGO, and reached 426

³⁶ BDT – Bangladesh Taka (local currency).

³⁷ The consumption support started after the asset transfer was made.

³⁸ Districts in Bangladesh are composed of several upazilas, a smaller administrative unit.

households. Both pilots started in 2007.³⁹ A third Asian pilot of the Graduation into Sustainable Livelihoods project carried out by multiple local NGOs in Pakistan in 2007, reaching 660 households.⁴⁰ All of the Asian pilots included the typical components of the CFPR model: asset transfer, training and coaching and cash transfers for consumption support.⁴¹ One difference from the original model was the greater emphasis placed by the Asian pilots on savings and financial literacy: a mandatory savings component was added to the two Indian pilots, for example.⁴²

The key social protection element of the CFPR and CFPR-type projects was consumption support, in most cases implemented as temporary cash transfers to avoid depletion of the assets distributed by the projects to beneficiaries. The prevalent components of agricultural interventions were investment grants (or asset transfers), training and coaching. We note that training and coaching may also be classified as social protection. For this reason, we have displayed them as cross-sectoral interventions in in Tables 2, 3 and 4.

A network of 46 NGOs carried out the CARE SHOUHARDO project in four regions of Bangladesh. The project sought to combine several interventions using a bottom-up method that aimed at empowering the poorest and most marginalized segments of the population. Besides agricultural and food security interventions, such as homestead development and income-generating activities linked to agriculture or livestock, it also had a food assistance component to meet the objectives of mother and child health nutrition. The food assistance component also included a food for work and cash for work element. Other components of the programme were early childhood development, sanitation and infrastructure and participation in SHOUHARDO groups aimed at empowering beneficiaries. The programme used both geographical and household targeting. National databases were harnessed to identify the remote areas of the country most vulnerable to shocks and food insecurity. In addition, participatory village-level household targeting was based on “well-being” analysis. This process classified households into four categories: extreme poor, poor, middle class and rich. The first two categories were eligible for programme interventions, yielding 400 000 households, about 75 percent of the households in the project villages.

The *Indira Kranti Pathan* (IKP) programme in India, a combined women’s empowerment and rural livelihoods programme, was scaled-up from 2004 to 2008 by the Government of Andhra Pradesh to all rural districts in the state and implemented by the Society for the Elimination of Rural Poverty (SERP). The IKP programme includes a range of interventions that mostly reach beneficiaries through women’s self-help groups (SHG) or other civil society organizations that are established on a demand basis. Interventions include incentives to foster savings, investment/seed funds, access to low-cost credit (linking SHGs to banks),

³⁹ The Bandhan intervention reached 22 595 households (rural and urban) in 2013 while the SKS intervention was scaled up to reach other 1 700 households in Andhra Pradesh and a similar model in Orissa involved 1 000 households.

⁴⁰ The pilot was scaled up to cover 3 100 households in 2011; 40 000 households in 2012; and 80 000 households by 2014.

⁴¹ Details on the value of the consumptions support and the composition and value of the asset transfer can be found in Table A.2 in the Appendix.

⁴² In the Pakistan pilot, beneficiary households were incentivized to save money at home or with Rotating Savings and Credit Associations (ROSCAs).

and training in social and economic skills and livelihoods. Savings seem to have been the most accessible element of IKP: with about 96 percent of IKP participants reportedly benefiting, while livelihoods interventions had far lower levels of participation, e.g. input market component reached only one percent and the output market component two percent of the beneficiaries (Prennushi and Gupta, 2014).

The P-135 programme in Vietnam was a five-year poverty reduction programme of the Government of Vietnam that ran from 2006-2010, targeting 1 644 poor and mountain communes in 45 provinces where most of Vietnam's ethnic minorities live. The State Committee for Ethnic Minority Affairs (CEMA) was the lead agency assigned to coordinate and oversee implementation of P-135, with several ministries participating in different aspects of the programme. The programme comprised a package of interventions that included infrastructure development, capacity development, improved access to social services such as education and healthcare as well as water and sanitation, and agricultural support. The agricultural support element involved skill building and training through extension services, demonstration models and distribution of agricultural inputs and other resources in the programme areas (IRC, 2012).

Compared to the Latin American CPs described in the next section, interventions such as the IKP and the P-135 did not have classical social protection elements at their core, although they did ensure access to social services for beneficiaries.⁴³ Nevertheless, the training component of these programmes have an aspect of social protection since they support the productive engagement of beneficiaries by building entrepreneurship skills, a common element of labour market and livelihoods interventions, which are a component of social protection as discussed previously.

Most of the combined programmes in Asia covered in this review tend to be fully coordinated, despite the challenges involved in reaching high numbers of beneficiaries through multiple implementation agencies. Even the government-led CPs seem to have been relatively successful in coordinating different programme components to benefit the same population (or geographical area).

3.3 Programmes that combine agricultural and social protection interventions in Latin America

As shown in Table 3, in almost all of the Latin American programmes selected for this review, government-led CCTs were the prevalent form of social protection programme.⁴⁴ CCT programmes have the twin objectives of alleviating poverty in the short term through cash transfers and breaking the intergenerational cycle of poverty through health, nutrition and education-related improvements over time. Despite having a common objective, the implementation, design parameters and coverage of CCTs vary considerably across

⁴³ In the case of IKP, although the integration with NREGA (employment guarantee schemes/public work-based intervention) was not planned, Prennushi and Gupta (2014) assessed the heterogeneous impact of the programme for NREGA beneficiaries.

⁴⁴ The Honduras pilot of the Graduation into Sustainable Livelihoods programme was the only SLP that did not have a cash transfer component. Its consumption smoothing component to avoid asset depletion consisted of a one-time food transfer meant to cover the 6-month long lean season. This pilot started in 2009 and it was implemented by the NGO ODEF.

countries. They tend to cover much larger populations and to endure a much longer time than most of the SLPs reviewed in this review.

Peru and El Salvador's CCTs do not have national coverage. *Juntos* in Peru started in 2005 and only covers rural districts, reaching 10 percent of the total population. El Salvador's *Comunidades Solidaria Rurales* (CSR) also began in 2005 and is only implemented in municipalities with the highest poverty rates, reaching about seven percent of the population. After peaking in 2010, no additional beneficiaries were incorporated into the CSR programme. *Más Familias en Acción* (former *Familias en Acción*) started in 2001 in Colombia and targets poor and vulnerable households as well as internally-displaced and indigenous populations with children under 18 years of age. The programme reaches nine percent of the Colombian population. *Ingreso Etico Familiar* (IEF) started in Chile in 2012 building on *Chile Solidario*, which was launched in 2002. The IEF only reaches the extreme poor; in 2014 it covered four percent of the country's population. Beneficiaries enter IEF in a staggered manner.

Bolsa Familia in Brazil (2003) and *Oportunidades* (1996) in Mexico have national coverage. The programmes reach about 25 percent of the total population in both countries. The *Atención a Crisis* in Nicaragua was a one-year intervention with a CCT component and covered only 3 000 families in selected districts, unlike other CCT programmes in the region that have been continuously implemented, some for more than 15 years. The Nicaragua programme sought to assist households to diversify their sources of income away from agriculture, also as a means to make them more resilient to weather shocks.⁴⁵

Agricultural interventions in the region that complement CCT programmes by design (CPs) or simply overlap with them (OP) and that have been evaluated include: rural credit (in Brazil and Peru), extension services and productive support packages based on natural resources management and access to market interventions (in Colombia, Peru, El Salvador and Chile) and compensatory unconditional cash transfers (in Mexico). In Nicaragua, productive investment grants and vocational training served to complement the CCT pilot programme. Finally there are two pilots of the Graduation into Sustainable Livelihoods programme (SLP), one in Peru that is somewhat integrated with the *Juntos* CCT programme and another in Honduras, that is not integrated with any CCT programme and whose consumption support is based on food rather than cash transfers.

⁴⁵ Detailed information about the different programme components, coverage, payment structure, duration, and graduation rules can be found in the ECLAC database at: <http://dds.cepal.org/bdptc/en/>.

Table 3 Programmes that combine agricultural and social protection interventions in Latin America

Programme	Country	Agricultural intervention	Social protection intervention	Typology	Coordination
<i>Juntos</i> and Rural Credit	Peru	Rural credit (different types)	CCT	OP	No coordination (evaluation based on overlap)
<i>Juntos</i> and <i>Sierra Sur</i>	Peru	- Natural resources management and access to markets; - Productive technical assistance for producer associations and cooperatives hired by the associations using resources from the project.	CCT	OP	No coordination (evaluation based on overlap)
<i>Juntos</i> and <i>Haku Wiñay</i>	Peru	- Productive and entrepreneurial skills, including adoption of simple and low-cost technological innovations; - Productive assets, technical assistance and training; - Support to organize and prepare business plans to pursue grants for technical assistance and training.	CCT	CP	High level of coordination
Graduation into Sustainable Livelihoods	Peru	Asset transfer Training and coaching	CCT or cash support	SLP	Fully coordinated
<i>Bolsa Familia</i> and PRONAF	Brazil	Rural credit	CCT	OP	No coordination (evaluation based on overlap)
Graduation into Sustainable Livelihoods	Honduras	Asset transfer Training and coaching	Food transfer	SLP	Fully coordinated
<i>Oportunidades</i> and PROCAMPO	Mexico	Unconditional cash transfer as financial compensation for smallholder farmers for the Free Trade Agreement of North-America.	CCT	OP	No coordination (evaluation based on overlap)
<i>Comunidades Solidarias Rurales</i> and rural development interventions	El Salvador	Extension services to improve production, homestead gardens, natural resources management and access to markets.	CCT	OP	No coordination (evaluation based on overlap)
<i>Ingreso Etico Familiar</i> and productive support from FOSIS programmes.	Chile	Business support (credit and training).	CCT	CP	Some coordination (incentives to have priority access) – low coverage though
<i>Familias en Acción</i> and <i>Oportunidades Rurales</i>	Colombia	Financial support to farmers' organizations to purchase extension services.	CCT	CP	Some coordination (incentives to have priority access) – low coverage though
<i>Atención a Crisis</i> and investment grant and vocational training	Nicaragua	Investment grant (different groups received each component). vocational training	CCT (one year pilot)	CP	Fully coordinated

Source: authors' own elaboration.

The evaluated LAC programmes show varying degrees of coordination or alignment between agricultural and social protection interventions. Nicaragua's one-year pilot *Atención a Crisis* combined a CCT intervention with vocational training or an investment grant in an experimental design in which the components were fully integrated. Honduras' and Peru's Graduation into Sustainable Livelihoods pilots⁴⁶ were fully coordinated and implemented as part of an experimental project design.

Both Colombia's *Oportunidades Rurales* (OR) and Chile's entrepreneurship programmes under FOSIS⁴⁷ had design-based incentives to ensure the participation of CCT beneficiaries. The CP programmes gave preferential – or facilitated – access to CCT beneficiaries, although the complementary interventions were not exclusively targeted to them.⁴⁸ The OR started in 2007 with the objective of increasing the ownership of productive assets and social capital and improving access to financial services among smallholder farmers. The programme used resources transferred to farmers' organization (cooperatives and association) to hire technical assistance in the private sector and to gain access to financial products (e.g. microinsurance) and information. To be eligible for the OR programme, at least 20 farmers affiliated with farmer's organization had to be classified as level 1 or 2 under the SISBEN classification (SISBEN is a proxy means testing scale to target social programmes). As *Familias en Acción* beneficiaries belonged to SISBEN level 1, this would imply that some of the beneficiaries of the OR programme were very likely to have received CCTs from FA. Indeed, administrative records show that 40 percent of the farmers that benefited from OR between 2008 and 2013 were also beneficiaries of the FA CCT programme (Moya, 2015).

In Chile, the Ministry of Social Development transferred an earmarked budget to FOSIS to guarantee the supply of the capacity development programme *Yo emprendo semilla* to beneficiaries of the IEF. The *Yo emprendo semilla* programme targeted the unemployed or those in precarious occupations to help them create a microenterprise to increase their income. About 80 percent of the beneficiaries of *Yo Emprendo Semilla* were also IEF beneficiaries.

Evaluations of *Juntos* and rural credit programmes (Del Pozo, 2014) and of *Juntos* and *Sierra Sur* (which provides support for natural resources management and access to markets in target districts) as reported in Aldana, Vásquez and Yancari (2016), provide clear examples of OPs in which the targeting and implementation strategies focus on similar rural households or geographical areas. However, this is the result of fortuitous chance and not of a concerted effort to coordinate or align the interventions. By contrast, the impact of *Juntos* and the pilot *Haku Wiñay*, as reported by Escobal and Ponce (2015, 2016b), refers to the intentional alignment of programmes, whose implementation agencies, despite being different, both sit in the Ministry for Social Development and Inclusion. Moreover, the

⁴⁶ Peru's pilot was started in 2010 in Cusco by an NGO *Asociación Arariwa* covering 785 households. There is no information on its scaling up.

⁴⁷ FOSIS is the Chilean government agency responsible for financing training programmes, among other productive support services to beneficiaries of targeted social policies in Chile.

⁴⁸ This is one of the striking differences between aligned programmes and the single interventions that characterize the programmes based on sustainable livelihood strategies.

financial literacy components⁴⁹ of the *Haku Wiñay* are exclusively implemented for *Juntos* beneficiaries.

Brazil's *Bolsa Familia* and PRONAF (which provides subsidized rural credit for smallholder farmers), Mexico's *Oportunidades* and *Procampo* (compensatory cash transfers for family farmers) and El Salvador's *CSR* and rural development programmes⁵⁰ are also typical cases of OPs that target similar beneficiaries, mostly due to similar eligibility rules. These programmes are structured without any clear coordination mechanism to facilitate access by beneficiaries of one intervention to another and/or to align their objectives and operations.

The evaluations of the LAC programmes evinced a clear pattern whereby only pilot interventions with experimental designs had high levels of coordination. Most of the government-led agricultural and social protection interventions involving different implementing agencies did not have a strong evaluation design, jeopardizing the quality of the evidence that emerged. This illustrates the need for better-designed evaluations, planned at the very early phases of the interventions and not seen as an *ex-post* activity. It is also worth noting that many of the evaluations of the LAC programmes were implemented with a view to assessing the potential synergies of OPs (e.g. Brazil, Peru - *Sierra Sur and rural credit*, Mexico, El Salvador) rather than to evaluate a coherent intervention that combines both sets of interventions.

3.4 Programmes that combine agricultural and social protection interventions in Africa

In Africa, there are fewer combined programmes, therefore fewer evaluations were available for this review. As discussed in the beginning of this section, the interaction between the PSNP, particularly its public work component, and the agricultural interventions of the OFSP/HABP in Ethiopia, dominates the African evidence presented in this paper. The typical agricultural interventions of the HABP include access to credit, agricultural extension services, technology transfer (e.g. advice on food crop production, cash cropping, livestock production, and soil and water conservation) and irrigation and water harvesting schemes. The Ethiopian case has an intermediary level of coordination following the progressive alignment of the programmes (basically moving from an OP to a CP), somewhat similar to the approaches adopted in Colombia and Chile where beneficiaries of social protection programmes were supposed (by design) to have priority access to agricultural interventions.

According to the survey used in Gilligan, Hoddinott and Tafesse (2009) to evaluate the PSNP and OFSP, about 32.7 percent of PSNP beneficiaries also received OFSP transfers or

⁴⁹ Other components include access and adoption of simple and low cost technologies (family production system component); safe kitchens and safe water storage and management (healthy housing); competitive grants to fund technical assistance; and training through farmer associations (inclusive rural business).

⁵⁰ Rural development programmes in El Salvador include productive support (EP) and food and nutritional security (SAN) interventions. These programmes include itinerant school fields, homestead garden support, natural resources management, support to farmer associations and access to markets. These interventions are managed by the Ministry of Agriculture and Livestock (RD).

services in 2006. However, the delivery of services was inconsistent and less than ten percent have been involved in the public works scheme in all three years of the programme as well as OFSP in both 2006 and 2008. This lack of consistency was largely due to an understaffing of extension services at the Kebele level.⁵¹ The replacement of the OFSP by the HABP was meant to address this issue by ensuring that each Kebele had at least one development agent assigned to each area of extension services: crop science, animal husbandry and natural resources management. In addition, the HABP was supposed to enforce the priority access of PSNP beneficiaries to its services.

The HABP has delinked credit services from extension services. Credit would be available through microfinance institutions and the Rural Savings and Credit Cooperative (RUSACCO). As a result, access to the HABP in 2008 was higher than access to the OFSP in 2006, particularly in regions with less access in 2006. Increases in access were observed in virtually all services, including improved seeds (Tigray), credit (Amhara) and water harvesting (Oromiya) (Hoddinott *et al.*, 2012). Coverage by the PSNP is so high in Ethiopia that the Graduation into Sustainable Livelihoods pilot project considered additional consumption support unnecessary given the existence of the food-for-work component of the PSNP, which covers both treated and control households. Note that no reference to the OFSP is made in the evaluation of the SLP pilot. Thus, we keep the classification of this pilot as a pure SLP as we will see later.

Blattman *et al.* (2014) report the case of the pilot WINGS⁵² in Uganda. Similar to Nicaragua's *Atención a Crisis* and its complementary interventions, the core objective of the WINGS SLP interventions was to support young women by diversifying their sources of income away from agriculture. The project provided an investment grant for non-farm activities rather than livestock rearing, as per most CFPR-influenced programmes. Association of Volunteers in International Service (AVSI) - an NGO - implemented WINGS and fully coordinated all project components.

In Lesotho, the Child Grant Programme (CGP) – an unconditional cash transfer programme for extremely poor families with children – was linked with a tailored agricultural intervention, Linking Food Security with Social Protection (LFSSP). The LFSSP provided training on homestead gardening and food preservation practices with the distribution of vegetable seeds to households that were eligible for the CGP. The LFSSP was implemented by FAO in partnership with NGOs and with very little government involvement. Unlike in Ethiopia, the level of coordination between project components in Uganda and Lesotho was high by design. As such, the programmes are more SLP than CP as they were designed specifically for the beneficiaries of the CGP rather than adapting an existing programme in

⁵¹ A kebele is the smallest administrative unit in Ethiopia. Groups of neighbouring kebeles are organized into woredas (or districts), which are further aggregated into zones and then into regions.

⁵² The Women's Income Generation Support – WINGS – implemented by an NGO in Uganda had a design very similar to the CFPR. The major difference was in the use of investment grants (rather than asset transfers). Similar to the evaluations of the Graduation into Sustainable Livelihoods project, the WINGS evaluation also had an experimental design covering 1 800 beneficiaries in two cohort entries of 900. The late entry cohort was randomized out for the evaluation of the programme.

the agriculture or livelihoods sector. For this reason, we have used both classifications CP/SLP in Table 4.

In Malawi, the Social Cash Transfer Programme (SCTP) is an unconditional cash transfer program aimed at reducing poverty and hunger among vulnerable households and increasing school enrolment. It targets ultra-poor and labour-constrained households, with members who are either elderly, chronically ill, orphaned or have disabilities. The programme started in 2006 as a pilot and has been steadily scaled up, reaching 170 000 beneficiary households by December 2015. The size of the transfer to each household is adjusted to the number of household members and the number of members enrolled in primary and secondary schools. The average transfers reaches MWK 4 500 per month, approximately US\$6.50.⁵³ Another Malawi programme, the Farm Input Subsidy Programme (FISP) was created in 2005 with the objective of improving food security and the income of smallholder farmers by facilitating their access to improved agricultural inputs. Its target audience is somewhat loose and targeting decisions are decentralized; community leaders choose “vulnerable households” with access to land. There is no direct link or coordination between the SCTP and the FISP, thus they fall under the category of OP. Survey data from the SCTP evaluation suggest that many beneficiaries of the SCTP also receive the FISP voucher,⁵⁴ which allows for the assessment of complementarities between the two programmes undertaken in Pace *et al.* (2016).

In Burkina Faso, a pilot called Local Education Assistance and Procurement project (LEAP) aimed at integrating local procurement of food with a longstanding school feeding programme, a Home Grown School Feeding modality. This pilot supplied food to 364 schools in eight departments in two provinces of Burkina Faso (Gnagna and Namentenga). A total of 58 127 students received 20 daily rations per month from April to June 2011. These two provinces suffer from generalized poverty and food insecurity, which justifies the school feeding intervention. The program procured food from 22 local farmer’s associations – ranging from 10 to 58 members. This pilot intervention was assessed against the traditional US-sourced food and the result of this evaluation is reported in Upton *et al.* (2012).

⁵³ MWK – Malawian Kwachas, the currency of Malawi.

⁵⁴ Although it has been reported that in some communities beneficiaries of the SCTP are excluded from the FISP lists to avoid ‘double dipping’ and to allow different households to have access to another source of subsidy support.

Table 4 Programmes that combine agricultural and social protection interventions in Africa

Programme	Country	Agricultural intervention	Social protection intervention	Typology	Coordination
Productive Safety Net Programme (PSNP) and Other Food Security Programme/Household Asset Building Programme (OFSP/HABP)	Ethiopia	Agricultural extension services, credit, technology transfer (advice on food crop production, cash cropping, livestock production and soil and water conservation), and irrigation and water harvesting schemes.	Public works (labour-unconstrained households) and cash transfers (labour-constrained households)	CP	Some coordination (HASP built on OFSP but it was intended to improve coordination and access for PSNP beneficiaries)
Graduation into Sustainable Livelihoods	Ethiopia	Asset transfer Training and coaching	Food support through food for work programme (PSNP)	SLP	Fully coordinated
Graduation into Sustainable Livelihoods	Ghana	Asset transfer Training and coaching	cash transfers	SLP	Fully coordinated
Women's Income Generation Support – WINGS48 (2009-2011)	Uganda	Investment grant; business skills training.	Cash support for working capital (similar non-depletion function for assets).	SLP	Fully coordinated
Child Grant Programme and Linking Food Security and Social Protection	Lesotho	Homestead gardening (seeds) and food preservation and nutrition training.	UCT	CP	Fully coordinated (agricultural intervention was tailored for the UCT programme)
Social Cash Transfer Programme and Farm Input Subsidy Programme	Malawi	Input subsidy (vouchers)	UCT	OP	No coordination
Local Education Assistance and Procurement project (LEAP)	Burkina Faso	Local food procurement	School Feeding	CP	Fully coordinated

Source: authors' own elaboration.

Finally, the experimental evaluations of Graduation into Sustainable Livelihoods covered pilot programmes in Ghana and Ethiopia. In Ghana, the programme included 666 beneficiary households and distributed weekly cash transfers in the lean season, while in Ethiopia, where the pilot reached 458 beneficiary households, both treated and control groups were able to benefit from the PNSP public work programme for consumption support.⁵⁵ The value of the asset transfer in Ethiopia was the highest observed in all six pilots of Graduation into Sustainable Livelihoods. This may have compensated for the lack of additional income support beyond the PSNP transfers in that country, which constituted the core of the intervention on the agricultural side similar to the other sustainable livelihoods strategies.

⁵⁵ In Ghana, the pilot was implemented by Presbyterian Agricultural Services (an NGO) and in Ethiopia by the Relief Society of Tigray (RST). Both pilots were implemented in 2010 and there is no information on possible scaling up.

3.4 Concluding remarks

The work of BRAC's CFPR in Bangladesh,⁵⁶ Peru's efforts to improve coordination between its conditional cash transfer programme and economic inclusion and rural development initiatives and finally Ethiopia's efforts to link the PSNP with the HABP Ethiopia are responsible for most of the innovations. Evidence on the impacts of these is discussed in this review. The CFPR is a prime example of an SLP whose adaptability to other contexts is being tested, both in Bangladesh through the implementation of the CLP (Phase 1 and 2), the ER+ and the FSUP, and abroad through the Graduation into Sustainable Livelihoods project. In Ethiopia, the links between PSNP and OFSP/HABP give evidence of progressive alignment and coordination of programmes that simply overlapped for quite some time. The work in Peru reveals the challenges of aligning OP and CP categories as well as their potential. It also provides a primary source of evidence about combining CCTs with agricultural interventions.

The experiences from these three countries clearly indicate some regional patterns in terms of how different programme elements tend to be combined. Of course, this does not prevent cross-fertilization across regions as the widespread implementation of the Graduation into Sustainable Livelihoods pilots suggests. It does however reveal some clear preferences for how agricultural interventions and social protection programmes are implemented in different regions or subcontinents.

The positive results documented by the evaluations of these programmes, discussed in detail in the next two sections, indicate that there is much to be learned from them about how to effectively to combine different sectoral programmes. In addition, key aspects of programme design require further evaluation to determine the true added value of coordinating agricultural and social protection interventions.

⁵⁶ The number of evaluations of the CFPR resembles the overwhelming number of evaluations of *Progres/Oportunidades* in Mexico.

4. Main features of the selected evaluation papers and reports

This section presents and discusses the main features of the selected evaluation papers and reports in detail. It will show the diverse approaches used to measure the overall impact and/or the synergistic effects of combined programmes and will investigate whether there is a relationship between successful combined programmes and evaluation design.

4.1 Evaluation methods

As shown in Table 5, about a third of the evaluations reviewed in this paper (12 out of 37) had an experimental design – the gold standard of impact evaluations. The low proportion of evaluations with an experimental design does not come as a surprise. Despite the growing support of the international development community for the use of new ways (such as Randomized Control Trials - RCT) to assess development programmes, implementing them poses several challenges for both programme implementers and evaluators. As a result, non-experimental designs are more likely to prevail.

Most of the experimental evaluations listed in Table 5 are concerned with combined interventions under the SLP category. A major contributor to experimental evaluation design is the CGAP/Ford Foundation Graduation into Sustainable Livelihoods project. This project has assessed the adaptability of the BRAC's CFPR model to different country contexts. Banerjee *et al.* (2015) have reported both aggregated and country-specific results for six Graduation into Sustainable Livelihoods-type pilots that took place in Ethiopia, Pakistan, Honduras, Peru, Ghana and India (Mushibadad).⁵⁷ Bauchet, Morduch and Ravi (2015) reported on another pilot in their evaluation of the SKS Ultra Poor Programme (UPP) implemented in Medak District in the Indian State of Andhra Pradesh. These pilots are actually responsible for seven out of ten experimental evaluations reviewed in this paper.⁵⁸ Likewise, Bandiera *et al.* (2013, 2016), and Raza and Van de Poel (2016) reported the results of the experimental evaluation of CFPR Phase 2.

The other three experimental evaluations are Blattman *et al.* (2014) for Uganda, Macours, Premand and Vakis (2012) for Nicaragua and Escobal and Ponce (2016a, 2016b) for Peru. The former two evaluations look at interventions that use investment grants rather than asset transfers in order to foster income diversification rather than by increasing rural incomes while the latter paper assesses the impacts of a rural development project targeted at poor and extreme poor households. All of the impact evaluations with experimental design come

⁵⁷ Banerjee *et al.* (2015) and Raza and Van de Poel (2016) provided the only evaluations that took into account the issue of testing many outcomes. Banerjee *et al.* grouped outcomes into families using index variables and also calculated q-values to control for false discovery rates (FDR). Raza and Van de Poel adjusted p-values using the Bonferroni correction procedure for multiple hypothesis testing.

⁵⁸ Two other pilots, one in Yemen and another in Haiti, did not complete their evaluation processes. For information on all seven pilots whose impact evaluations are part of this review see: <http://www.microfinancegateway.org/topics/graduation-sustainable-livelihoods>.

from the SLP category, except for Macours, Premand and Vakis (2012) and Escobal and Ponce (2016a), which look at the impact of CPs for CCT programmes.

Most experimental evaluations reviewed here focus on pilot programmes with a limited number of beneficiaries and little or no government involvement. An exception is found in the evaluations of combined programmes in Nicaragua as assessed by Bandiera *et al.* (2013, 2016) and Raza and Van de Poel's (2016) evaluations of the CFPR Phase II. The latter is a large-scale programme intervention but still with almost no government involvement,⁵⁹ raising some concerns about the replicability of programme design and its impacts if the interventions are brought to scale.

With regard to the non-experimental evaluations (26 out of 37), several challenges seem to have limited the methodological options available to evaluators. For example, nine evaluations did not include a proper baseline survey. About five evaluations based at least part of their assessment on secondary data, relying on questionnaires and/or sampling strategies meant for other purposes. Such features reveal the *ex-post* nature of many non-experimental evaluations. This is largely due to the absence of impact evaluation planning during the design phase, particularly in the case of CPs and OPs, where in most cases programmes are already up and running when evaluations are finally envisaged.

Table 5⁶⁰ lists the different methodologies that the reviewed papers/reports have used in order to produce robust estimates of the impacts of combined programmes. Difference-in-differences and panel data methods, such as fixed-effect and random-effect models, are the most commonly used methodologies when panel data surveys are available (at least two waves). A total of 16 out of the 26 non-experimental evaluations either used difference-in-differences or fixed-effect models to estimate the impact of combined interventions. In many cases, these panel data techniques are used in combination with different propensity score matching (PSM) methods. The evaluations of the CFPR model implemented in Bangladesh used difference-in-differences methods or combined them with PSM methods, in five evaluations for CFPR's Phase 1 (2002-2004)⁶¹ and one for Phase 2 (2007-2009).

Evaluation designs that rely on difference-in-differences yield impact estimates that are based on weaker assumptions than those applied when only *ex post* cross section data is available and thus offer more credible results. The evaluations reviewed here that are based

⁵⁹ Dewbre *et al.* (2010)'s evaluation of Lesotho's Child Grant Programme (CGP) and the Linking Food Security to Social Protection Programme (LFSSP) is not classified as an experimental evaluation despite building on an experimental evaluation. The LFSSP allocation was not randomized and the programme did not have a pure control group as the allocation was given to both treated and control groups in the two communities where it was implemented. The impact estimate yields the result of receiving three years of CGP and one year of LFSSP (treated) compared to only one year of the LFSSP (control). To understand the impact of LFSSP only, cross section estimates of 2 years of CGP exposure are compared to the difference-in-differences results.

⁶⁰ Table 2 lists the main methodology applied in the evaluation. Naude *et al.* (2016) also present some results using a social accounting matrix and Del Pozo (2014) uses instrumental variable techniques as a robustness check for the results of the difference-in-differences with propensity score matching methods adopted in the text.

⁶¹ It is worth noting that the sample used in the different surveys of the evaluation of the CFPR Phase 1 is the same. The papers reported here are based on the 2002 baseline survey and follow-up surveys in 2005, 2008, and 2011. For more details see Table A.2 in the Appendix.

on a single cross section used the following methods to estimate programme impacts: propensity score matching, time of exposure to the programme and new entry cohort as controls. Aldana, Vásquez and Yancari (2016) and De Sanfeliú *et al.* (2016) use propensity score matching based on time-invariant variables related to the selection into the programme. Moya (2016) and HTPSE Limited (2011) use the delayed entry of new beneficiary cohorts not yet affected by the programme to estimate the counterfactual for older treated cohorts. Hoddinott *et al.* (2012) use the duration of the treatment-time of exposure to the programme and Gilligan, Hoddinott and Tafesse (2009) and Upton *et al.* (2012) use retrospective questions asked in the single *ex post cross* section to emulate a difference-in-differences approach.

Some evaluations, despite having two-wave surveys, did not have a proper baseline as their programmes were already underway at the time of the first survey. This was the case for Naude *et al.* (2016) in Mexico, Fernandez *et al.* (2016) in Chile, Nega *et al.* (2010) in Ethiopia and Pace *et al.* (2016) in Malawi. Naude *et al.* (2016) pooled the sample of the 2002 and 2007 surveys and applied a generalized propensity score to estimate the combined and individual impact of *Oportunidades* and PROCAMPO in Mexico on a small set of indicators. Fernandez *et al.* (2016) used fixed-effect models combined with propensity score to estimate the interaction effects between IEF (CCT) and FOSIS (economic inclusion) programmes in Chile. Nega *et al.* (2010) estimated the separate impact of participation in public works programmes and in the Food Security and Nutrition (FSP) programme in Ethiopia measured between 2004 and 2006. Pace *et al.* (2016) used a subsample of the SCTP experimental evaluation where beneficiaries of the FISP at the baseline are dropped from the sample used in the analysis. Such a procedure implies dropping roughly 50 percent of the original sample. But in doing so, they guarantee that at baseline neither SCTP nor FISP potential beneficiaries were receiving anything from the two programmes (or both in combination).

Smith *et al.* (2013) is a special case among the selected papers. The authors use a difference-in-differences approach based on the graphic inspection of the evolution of the outcome of interest (stunting) over time in the project areas compared to the evolution of the outcome at the national level measured by comparable household surveys. However, they do not run any statistical test. In principle, this approach would not meet our criteria for robust evaluation as discussed in Section 2, but it was included because they offer a good explanation of why the comparison would be credible as well as their analysis of the synergistic effects of different components by using propensity score matching.

Table 5 Methodologies used in the evaluations⁶²

Methodology	Papers	Number of evaluations
Randomized control trial (experimental evaluations)	6 - Banerjee <i>et al.</i> (2015); Raza and Van de Poel (2016); Bandiera <i>et al.</i> (2013, 2016); Bauchet, Morduch and Ravi (2015); Blattman <i>et al.</i> (2014); Macours, Premand and Vakis (2012); Escobal and Ponce (2016b)	12
Difference-in-differences	Krishna, Poghosyan and Das (2010); BDI (2012) ; IRC (2012); Dewbre <i>et al.</i> (2015) ; Garcia, Helfand and Souza (2016)	5
Difference-in-differences with propensity score matching [non-parametric methods: e.g. nearest neighbor, kernel]	Ahmed <i>et al.</i> (2009); Prennushi and Gupta (2014); Raza, Das and Misha (2012); Raza and Ara (2012); Del Pozo (2014) ; Smith <i>et al.</i> (2013)	6
Difference-in-differences with propensity score matching (parametric method: inverse probability weighting)	Misha <i>et al.</i> (2014); Pace <i>et al.</i> (2016)	2
Difference-in-differences with propensity score matching (parametric and non-parametric methods) and Klein-Vella Heteroscedasticity-based Identification.	Emran, Robano and Smith (2014)	1
Panel data: fixed effects and random effects	Hernandez <i>et al.</i> (2015)	1
Panel data: fixed effects with propensity score matching	Fernandez <i>et al.</i> (2016)	1
Single difference using generalized propensity score (dosage)	Hoddinott <i>et al.</i> (2012)	1
Single difference and difference-in-differences based on retrospective questions	Gilligan, Hoddinott and Tafesse (2009); Upton <i>et al.</i> (2012)	2
Single difference with propensity score matching	HTPSE Limited (2011); Aldana, Vásquez and Yancari (2016); De Sanfeliú <i>et al.</i> (2016); Nega <i>et al.</i> (2010);	4
Single difference (pooled data): generalized propensity score matching (cross section) – inverse probability Weighting (parametric)	Naude <i>et al.</i> (2016)	1
Single difference (treatment: different entry cohorts)	Moya (2016);	1
Total		37

Source: author's own elaboration.

⁶² Detailed information on the methodology of the papers listed here is provided in Table A.2 in the appendix.

It is important to be aware that most evaluation designs, both experimental and quasi-experimental, particularly those applied to the SLP category of combined programmes, do not allow evaluators to either disentangle the effects of each of the components of the intervention nor to assess the existence of synergies between agricultural and social protection interventions. Impact estimates from most evaluations only show the overall impact of the full intervention without looking at individual (or groups of) components.⁶³ However, one of the key discussions around a sustainable livelihoods approach is precisely which components are most cost-effective and which contextual factors allow them to be so. For example, in Asia the coaching and training components that rely heavily on manpower are relatively inexpensive compared to the pilot experiences in LAC countries (Banerjee *et al.* 2015).

In almost all of the evaluations reviewed here, the unit of analysis and treatment is either the individual or the household. The only exception is Garcia, Helfand and Souza (2016) that uses an aggregated panel data at the municipality level to evaluate the synergies between the CCT programme *Bolsa Familia* and the subsidized rural credit used for family farmers (PRONAF). The treatment variables are coverage of the programmes at the municipal level, hence estimates reported in that paper refer to the overall effect of the coverage of each programme on indicators related to all family farmers at the municipal level. Thus, the results include potential spillover effects over non-beneficiaries, without being able to disentangle them.

Most evaluations either report the average treatment effect on the treated (ATT) or the intention to treat (ITT)⁶⁴ as their parameter of interest. In the case of evaluation papers that look at spillovers, the average treatment effect on the untreated (ATU) (i.e. the impact of the programme over untreated households in treated villages) is estimated using untreated households/individuals in untreated villages/areas as control group. Estimates of the ATU are reported in some of the SLP pilot evaluations presented in Banerjee *et al.* (2015) as well as in Bandiera *et al.* (2016) and in Raza and Van de Poel (2016) for the experimental evaluation of the CFPR Phase II in Bangladesh. Banerjee *et al.* (2015) estimate external effects (ATU) on eligible (and untreated) households/individuals in intervention villages/areas, whereas Bandiera *et al.* (2016) and Raza and Van de Poel (2016) estimate external effects (ATU) on non-eligible (and untreated) households/individuals in intervention villages/areas. Similarly, Aldana, Vásquez and Yancari (2016) use quasi-experimental methods to estimate the effect of *Sierra Sur* on households that did not benefit from the programme, but do reside in intervention areas.

Thus, aside from Garcia, Helfand and Souza (2016), Bandiera *et al.* (2016), Raza and Van de Poel (2016) and Aldana, Vásquez and Yancari (2016), there is no evidence of impacts at

⁶³ Blattman *et al.* (2014) is an exception as they randomized the intensity of the follow-up (coaching) visits in the design of the evaluation of WINGS in Uganda.

⁶⁴ ITT estimates define the treated group as the sample of households/individuals that were supposed to participate in the programme in the initial allocation process. It is intended to reproduce the impact of the programme on the target population, taking into account any difficulties with the implementation process, which includes drop-outs from the treated group and contamination of the control group.

the aggregate community level or beyond the eligible population for the programme(s) of interest. Such an exercise would require survey data on eligible and non-eligible populations in both intervention⁶⁵ and non-intervention areas. However, most impact evaluation surveys rarely collect data beyond the eligible population.

4.2 Evaluation design: Sampling strategies and control groups

The evaluations vary considerably with regard to their sampling strategies. The evaluation methodology and the strategy used to identify an appropriate control group largely drive this observed variation.⁶⁶ In this subsection, we discuss how the evaluations dealt with sampling issues.

The experimental evaluations tend to have quite a straightforward sampling process as almost all of them are based on SLPs with a single implementing agency. Any differences among them usually relate to the level of randomization, whether at the household level or at both the village and household level or whether evaluators aim at collecting information on non-beneficiaries to assess spillover or external effects.⁶⁷ In the case of the Graduation into Sustainable Livelihoods pilots, the implementing partners, usually local NGOs, were responsible for applying the targeting tool, a participatory wealth ranking to identify the poorest people in villages with high prevalence of extreme poverty. In three cases, the villages were randomly chosen to be part of the programme to assess spillover effects. Then, half of the eligible participants were randomly assigned to treatment and the other half to control. A baseline survey was conducted among all eligible participants and followed up by two endline surveys, the first about 24 months after the end of the interventions and the second about 12 months after the first endline survey.⁶⁸

⁶⁵ The fact that in many evaluations the control group comes from the same geographical area as the treatment group raises the issue of possible contamination or external effects on the treated group. Banerjee *et al.* (2015) did not find any evidence of externality effects (impacts on non-beneficiaries) in the pilots of the Graduation into Sustainable Livelihoods project in Honduras, Peru and Ghana. They argue that the low coverage of these programmes (which is partially due to its pilot nature) would prevent any externality effect (or general equilibrium effects) and recommend scaling up the pilot by including other geographical areas rather than including more people in the same geographical area.

⁶⁶ Detailed information on the impact evaluation methodology, sampling design, choice of comparison group and outcomes assessed in the evaluation is given in the Table A.3 in the appendix.

⁶⁷ In some cases, such as Blattman *et al.* (2014), spillover effects are measured at the village level using distance from the control villages as the proxy.

⁶⁸ The combined sample of the six pilots evaluated in Banerjee *et al.* (2015) is 10 495 households. In Ethiopia, the overall sample size was 925 households: 458 in the treatment group with a take-up rate of 100 percent and a within-village (10) control group only. In Pakistan, the sample size was 1 299 households: 660 treated with a take-up rate of 100 percent and a within-village (66) control group only. In India, the sample size was 978 households: 512 households with a very low take-up rate of 52 percent and a within-village (119) control group only. In Honduras, the sample size was 2 403 households: 800 treated with a take-up rate of 100 percent and a control group from both within the village (40) and control villages. In Peru, the sample size was 2,066 households: 785 treated with 100 percent take-up rate and control group from both within village (43) and control villages. In Ghana, the sample size was 2 606 households: 606 treated and take-up rate of 100 percent and control group from both within the village (155) and control villages. In Ghana there was a multiple treatment arm with the randomization of a savings schemes to incentivize saving behaviour. In the other Indian site of the project evaluated in Bauchet, Morduch and Ravi (2015) the sample size was 1 063 households: 575 treated and a take-up rate of 70 percent and a control group from control villages.

In rural Bangladesh, the evaluation samples used by Bandiera *et al.* (2013, 2016) and Raza and Van de Poel (2016) to assess the impact of the CFPR Phase 2 covered 1 409 communities in 40 regions.⁶⁹ Half of these communities had a delayed entry into the programme to work as a control group for the evaluation. The randomization process used the BRAC offices, which cover 20 upazilas each. Using the BRAC offices rather than communities as the unit of randomization was a strategy to avoid contaminating the control groups. The sample size had 7 953 eligible households (4 045 from treatment communities and 2 687 from control communities).

Blattman *et al.* (2014) reported on an experimental evaluation in which the 20 percent most marginalized individuals from the ages of 14 to 30 years in 60 villages in Northern Uganda and with a quota of 75 percent for women were included in a participatory targeting process. A baseline survey was conducted among all 1 800 eligible participants, after which the villages randomly assigned people either to immediate treatment, including training, cash and follow-up (Phase 1) – a total of 896 individuals – or to the waitlist (Phase 2) – 904 individuals who would participate in the programme in roughly 20 months. In addition, half of the 60 Phase 1 villages were randomly selected to receive group dynamics training to support self-help groups. During Phase 2, participants were randomly assigned to receive an unsupervised grant (318), one to two supervisory visits (300) or multiple visits, up to a maximum of 5, to provide both supervision and business advice (286). It is important to note that this SLP evaluation is one of the few that tries to disentangle the contribution of each component of the programme from the overall result.

Marcours, Premand and Vakis (2012) took a similar approach in their evaluation of CCTs combined with productive investment grants or vocational training for rural households in six municipalities of Nicaragua. The communities were randomly assigned to treatment (56) and control (50) groups. Then, the CCT-eligible households – selected through a proxy means test formula – from the treatment communities were randomly placed into three groups: a) CCTs only; b) CCTs plus investment grant; and c) CCTs plus vocational training. The programme had an overall take up rate of 95 percent. The sample size was 3 002 eligible households from the 56 treated communities and 1 019 eligible households from the 50 control communities.

Escobal and Ponce (2016a) used a sample of 428 households (207 treated and 221 control) issued from 36 villages (*centros poblados*) from the department of Cajamarca, Huánuco and Huancavelica in their analysis. The original sample used at the baseline survey was of 447 households (219 treated and 228 control) which gives an attrition rate of 4.3 percent. The randomization into treated and control groups took place at the village level (18 pairs) using pairwise randomization in which the pairs were matched according to their similarity taking into account their socioeconomic features. Due to the small sample size, the randomization was not very successful and propensity score weights were calculated to balance the sample of treated and control households. Although this evaluation only looked at the impacts of *Haku Wiñay*, more than 80 percent of the sample were also beneficiaries of the *Juntos* CCT

⁶⁹ The database for this evaluation actually contains only 1 309 communities because in 100 of the eligible communities no household qualified for the programme.

programme. The sample of potential beneficiaries of *Haku Wiñay* had an uptake rate of 86 percent.

As for the non-experimental evaluations, control groups were either identified among the non-eligible households in the participating communities or from eligible households in villages that were not participating in the programme. As noted above, difference-in-differences and propensity score matching methodologies were used to ensure that unobserved time-invariant features and/or differences in observables that might affect selection for the programme did not bias the results.

The non-experimental evaluations of CFPR Phase 1 in Bangladesh were largely based on the selection of a control group in the intervention communities using administrative lists of eligible and non-eligible participants as the sampling frame and successive surveys covering the baseline sample. A baseline survey was conducted before the start of the programme (from June to August 2002) in the three districts of Northern Bangladesh where it was implemented. The sample comprised selected ultra-poor people (treatment group) and non-selected ultra-poor people (control group). The latter, despite being ultra-poor as per the wealth rank participatory targeting process, did not meet some of the exclusion or inclusion criteria of the programme.⁷⁰ The baseline sample included 5 626 households, of which 2 633 were treated and 2 993 were control households.

Follow-up surveys were conducted to assess the impact of CFPR Phase 1 in 2005, 2008 and 2011. Ahmed *et al.* (2009) and Emran, Robano and Smith (2014; 2009)⁷¹ assessed the short-term impacts of the programme a year after its completion using the 2005 survey. Raza, Das and Misha (2012), Das and Misha (2010) and Krishna, Poghosyan and Das (2010) used the 2008⁷² survey to look at the medium term impacts of the programme and Misha *et al.* (2014) used the 2011 survey to assess its long-term impact.⁷³ Raza and Ara (2012) used a similar strategy to identify a control group for evaluating CFPR Phase 2. The non-selected ultra-poor from the intervention communities were used as the control group. The total sample size for the baseline survey was 3 685 households (778 treated and 2 907 control). The attrition rate found by the follow up survey implemented just after the completion of the programme was 8 percent.

To evaluate the FSUP in Bangladesh, BDI (2012) used a panel survey sample of 1 260 ultra-poor beneficiary households randomly selected from the 5 000 beneficiary households of the programme's first cycle and a control sample of 647 eligible households that were pre-selected using the FSUP targeting methodology in non-participating villages. Similarly, Hernandez *et al.* (2015) built a panel survey with a purposive sampling method based on a list of eligible participant households from 14 upazilas (seven treated and seven control).

⁷⁰ See Section 3 for a description of these criteria.

⁷¹ Emran, Robano and Smith (2009; 2014) used an additional control group based on eligible households (matching all requirements) that did not receive the programme due to implementation failures. Unlike the non-selected ultra poor, the eligible ultra-poor individuals not receiving the programme are more similar to the treated group.

⁷² Sample attrition rates were reported as 6 percent in 2005-2002 and 14 percent in 2008-2005.

⁷³ Sample attrition rate for the 2011 survey was 28 percent. However, the authors argue that none of the baseline characteristics were good predictors of the attrition later in the panel, which suggests that the results were unlikely to be biased by the loss of these cases.

An additional sample of control non-participants in ER comes from treated upazilas. The final sample size was of 2 397 households split into 800 ER+ eligible participants in treated areas, 797 ER households eligible for ER+ in control areas, and 800 non-ER households from treated areas.

The evaluation of the SHOUHARDO project by Smith *et al.* (2013) relies on a baseline survey of 3 300 children aged 6-24 months old from all four treated areas of the project and on two follow-up surveys conducted later with 3 200 and 3 356 children, respectively. The first follow-up included the same children, who were then aged 48-60 months,⁷⁴ and the last was comprised of a new cohort of 6-24 month-old children from the treated villages. Secondary data for the calculation of a counterfactual evolution included the following surveys: Bangladesh Demographic and Health Surveys (BDHS) conducted in 2004 and 2007; surveys conducted by the National Nutrition Surveillance Project of Helen Keller International (HKI) in 2006 and 2010 and the Bangladesh Household Food Security and Nutrition Assessment conducted by the World Food Program, UNICEF and Mitra and Associates from November 2008 to January 2009.

For the HTPSE Limited (2011) evaluation of the CLP Phase 1 in Bangladesh, the control group was identified as the late entry cohort and an *ex post* survey was used to assess differences between this group and the group that had entered the programme in a previous phase. Administrative data was used to assess the differences between treated and control groups.

A similar approach was used in the evaluations of CPs. Aldana, Vásquez and Yancari (2016) used a sample of *Juntos* beneficiaries from a district where the *Sierra Sur* programme was implemented and from other districts where it was not. They compared the two groups, taking into account income level and the willingness of the second group to participate in *Sierra Sur* projects and/or their willingness to pay for some of the services provided. The sample size after the matching process yielded 320 treated households and three control groups of 374, 209 and 117 households.

De Sanfeliú *et al.* (2016) merged three databases of (potential) beneficiaries of a CCT programme and rural development interventions: the FISDL census used to target beneficiaries of the *Comunidades Solidarias Rurales* (CSR) – El Salvador’s CCT programme – and the lists of beneficiaries of the SAN (Food and Nutritional Security) and EP (Productive Chains) programmes. This process identified 14 184 households that were both included in the FISDL census and benefited from the agricultural interventions implemented by SAN and EP. The final sample used in the survey was determined by pairing different group combinations of SAN and EP beneficiaries and CSR status (beneficiary, former beneficiary, never beneficiary) to yield a final sample of 1 301 households.⁷⁵

⁷⁴ Children who were between 18-24 months in the baseline were not part of the endline survey as they were above 60 months old.

⁷⁵ Households that participated in SAN and EP projects were classified in A, AC and C groups depending on whether they were benefiting from CSR at the time they participated in productive programmes, were former CSR beneficiaries or never benefited from CSR, respectively. Those who did not benefit from CSR were classified as B, BD, D as per their matching to the three groups of those who had participating excluding those

Moya (2016) used a survey based on a stratified sample of 59 farmers' organizations that participated in *Oportunidades Rurales* between 2008 and 2013. The stratification of the sample used the following variables: entry year in the programme, activity, region and an index for the quality of the organization. A second stage involved the random sampling of 729 households from these farmers' organization. The analysis of the impact of *Oportunidades Rurales* on *Familias en Acción* (CCT) beneficiaries was based on self-reported information as to whether the household benefited from the programme retrieved from the survey.

Some evaluations use the sampling process to identify beneficiary status during the process of listing households from sampled enumeration areas, instead of gathering information on programme participation from a list of eligible participants.

The IRC (2012) evaluation of P135 II in Vietnam built a panel survey with household - level data from a sample of communities reached by multiple interventions and from control communities selected using propensity score matching. The 266 sample communities – randomly selected from a population of 1 632 treated communities – were matched to 134 control communities selected from 727 non-treated communities. Next, a sample of 6 000 households was randomly selected from the listing of households from the selected treated and control communities.

Prennushi and Gupta (2014) also used a panel survey that was applied to five districts covered by IKP interventions in Andhra Pradesh, India. Districts were selected to represent five different agro climatic zones; then subdistricts, blocks and villages were randomly selected and a final stratified sample of 4 250 households within villages was selected, using poverty categories to stratify the sample. The survey questionnaire allowed to identify participants of IKP Self Help Groups (and other social programmes). This was necessary because unlike IRC (2012) the evaluation of IKP used a control group from treated communities rather than from non-treated communities. The impact analysis matched IKP participants and non-participants (using propensity score matching) and used poverty category strata to explore the heterogeneous impact of the programme.

Gilligan, Hoddinott and Tafesse (2009) and Hoddinott *et al.* (2012) in their evaluations of PSNP and the additional impact of OFSP/HASP interventions used a panel survey whose sampling was based on a list of kebeles in 68 chronically food-insecure woredas. The woredas were selected with probability proportional to size from a list of 153 across the four major regions of Ethiopia. The sample of woredas was stratified by region and, within each woreda, kebeles were randomly selected as enumeration areas. After households in the selected kebeles were listed, a stratified sample of 15 randomly selected PSNP beneficiary and ten non-beneficiary households was drawn. The final sample included 146 kebeles and 3 688 households. Nega *et al.* (2010) used a different panel survey but applied a very similar sampling strategy, except that the survey did not identify beneficiaries of public work

outside the common support. The matching process yielded 6 176 households. A random sampling of that population led to a sample size of 1 301 households divided into six groups: EP (A: CSR+EP=239; C: EP=152); SAN (A: CSR+SAN=241; C: SAN=213; AC: former CSR+SAN=230; BD= former CSR=226).

programmes in the listing of the households. The control group was matched with the treatment group. Their total sample size was 400 households (100 households in each tabia).⁷⁶ The beneficiary status was captured by the survey questionnaire.

In a few cases, evaluators have used on-going evaluations of cash transfer programmes to assess their impacts when combined with productive programmes. Dewbre *et al.* (2015) used the on-going experimental evaluation of the CGP in Lesotho to add specific questions related to LFSSP implementation and impacts on two follow-up surveys of households in the two communities where the programme was implemented.⁷⁷ The final sample included 299 households. The LFSSP intervention started in the third year of CGP implementation. Since a subsample of both the treated and control groups benefited from the CGP programme, it is possible to estimate a counterfactual for the LFSSP without cash transfers. However, in order to measure the additional impact of the LFSSP, one needs to compare the effect of receiving three years of CGP plus one year of LFSSP with the effect of having received the CGP only for two years.

Hernandez *et al.* (2015) used an evaluation survey designed to assess the impact of the *Ingreso Ético Familiar* (IEF) using a panel of beneficiaries and non-beneficiaries. A survey questionnaire was used to evaluate the interaction between the IEF and the FOSIS productive support programmes among 2 308 households. Similarly, Pace *et al.* (2016) used the experimental design database for evaluating the impact of the SCTP in Malawi to identify beneficiaries of the FISP. Through this procedure they were able to identify four groups: a group that neither received FISP nor SCTP; two groups that received either SCTP or FISP only; and a group that participated in both programmes. To clean the data from FISP beneficiaries at the baseline, 3 492 out of 6 708 households were dropped from the initial sample.

Upton *et al.* (2012) uses three different cross-section evaluation surveys with retrospective questions to estimate the impact of local procurement for the school feeding programme (LEAP) on both food recipient satisfaction and suppliers/farmers. For the latter, the survey was restricted to cowpea producers focusing on personal and production characteristics. For the food recipients the surveys covered the school head cook and then the school director. Thus, no survey looked directly at school age children and/or their households. As the identification strategy was based on a natural experiment in which the same programme implementer (Catholic Relief Services) run a similar programme, MYAP, in neighbouring area in which the food is not bought locally, the same survey instruments were applied in a sample from producers and schools. The authors drew a sample of 20 farmers from the list of all members of farmers' associations in each of the eight LEAP departments, yielding a sample of 160 farmers. Farmers association close to the MYAP (control) schools yielded a random sample of 150 farmers. As for recipients, schools were stratified by department and 15 of them were selected from each of the 8 departments, a total of 120 schools, and then the same number of schools from the MYAP four departments was

⁷⁶ Tabia is the smallest administrative unit of Ethiopia, an alternative definition for kebele.

⁷⁷ It is important to note that the LFSSP intervention was applied in only two communities in one of five districts that were under the first phase of the CGP and that were part of its experimental evaluation. Thus the sample size for this evaluation was much smaller than the one used to evaluate CGP.

matched to them. Sampling weights were used in the analysis for both producer and school data.

Finally, four evaluations used secondary data from surveys that were either part of the regular surveys implemented in a country or were designed for other purposes. Garcia, Helfand and Souza (2016) and Del Pozo (2014) used the national agricultural censuses to estimate the synergies between *Bolsa Familia* (CCT) and PRONAF in Brazil and *Juntos* (CCT) and rural credit in Peru, respectively. Garcia, Helfand and Souza (2016) used municipalities as the unit of observation (a sample of 4 251) and the coverage of both programmes as the treatment variable. Del Pozo (2014) used propensity score matching to build a pseudo- panel matching *Juntos* treated and non-treated districts, yielding a sample of 377 236 households – 108 971 *Juntos* households and 268 265 control households. Then they compared households with credit and those without to analyse the synergies between rural credit programmes and *Juntos*. Naude *et al.* (2016) used ENHRUM, a multipurpose panel survey from small localities in Mexico, to identify beneficiaries of *Oportunidades* and PROCAMPO and assess the interaction between the two programmes. The final sample used in the evaluation was of 3 290 households pooling the 2002 and 2007 survey rounds.

4.3 Outcomes of interest

This review has focussed on outcomes that measure the impacts of interventions on hunger, malnutrition and poverty. In addition, we have looked at indicators for intermediary outcomes that contribute to the improvement of the final outcomes, particularly those related to changes in the productive activities of beneficiary households, including asset accumulation, investment in inputs, access to credit and changes in labour market participation. Table A.3 provides a list of all outcome indicators covered by the selected evaluations.

Table 6 shows the prevalence of different sets of outcomes that are relevant for this review. The most common indicators relate to income, consumption and expenditures: 30 evaluation papers/reports (81 percent) assess the impact of combined programmes based on these outcomes. Interestingly, only five papers (14 percent) use poverty indicators to assess how impacts on consumption, expenditures and income translates into poverty reduction.

Impacts on hunger and malnutrition indicators are often reported by a variety of food security indicators such as: perceived food security, standard food security scores, and indicators of dietary diversity, frequency of meals or whether household members have missed out a meal in the day (the most prevalent set of indicators). Only Gilligan, Hoddinott and Tafesse (2009) reported calorie-intake indicators. Overall, 23 papers (62 percent) assessed the impact of combined interventions on food security indicators. It is striking that only two evaluations looked at anthropometric measurements for children, namely Smith *et al.* (2013) and Raza and Van de Poel (2016) and only the latter looked at similar indicators for adults or any indicators for micronutrient consumption/in-take for children or adults. The relatively high cost of collecting data on anthropometric measures largely explain the lack of such indicators. In any case, the lack of assessment of impacts on these measures reveals a relevant gap in the literature.

Asset-related indicators represent the second most common type of outcome assessed in the impact evaluations. In total, 28 papers/reports (76 percent) discuss the impact of the interventions on asset accumulation, with a focus on productive assets but also including durable goods (e.g. television, radio, refrigerator). Most evaluations, particularly those from the CFPR in Bangladesh, focus more on the ownership of assets than on the value of assets. Land and livestock ownership are most commonly evaluated, largely because the programmes were mostly implemented in rural areas and because livestock are highly prevalent among the assets distributed in many SLPs. Moreover, in some regions, livestock is used as a form of precautionary savings in the absence of accessible financial services.

The focus on rural areas also explains the relatively large number of papers that either discuss programme impacts in terms of direct production and productivity indicators (e.g. total value of produce and/or value or amount of produce per area) or in terms of indirect indicators. The latter include different sources of household income (and hours of work) dedicated to different economic activities, such as agriculture, livestock or non-farm enterprises. Out of the 37 evaluations, 21 (57 percent) include indicators that could be used to assess the impact of the interventions on production and/or productivity. However, much less is known about the impact of interventions on investments in agricultural (and non-agricultural) inputs. As seen before, this type of interventions tends to be assessed using ownership of productive assets rather than by measuring direct expenditures on productive inputs. Thus, only a few evaluations (7 out of 37) have assessed, for example, expenditures on the purchase of fertilizers or improved seeds.

The impacts of combined programmes on labour supply and occupation are reported in about half (17) of the evaluations. Impacts on agricultural and non-agricultural self-employment is the most common indicator, in line with the entrepreneurship objectives of many of the SLP and CP programmes. In most cases, evaluators disaggregate the results by sex or just report the results for women – who are often the main or direct beneficiaries of the interventions.

In these evaluations it is also very common to assess indicators on savings and access to credit. Many interventions had components to incentivise the use of financial services such as financial literacy, mandatory savings and the formation of savings groups. Moreover, cash transfer payments through formal financial institutions could also make financial services more accessible for beneficiaries.

Finally, 13 evaluations (37 percent) assess indicators related to community participation. Some of the interventions attempted to foster community participation through self-help groups, women's empowerment, productive associations or cooperatives so that these indicators were clearly related to the objectives of the programmes. It is important to bear in mind that community participation outcomes are much more diverse and less standardized than other outcomes discussed in this review. They will be more fully reported in the discussion in Section 5.

Table 6 Prevalence of outcomes of interest in the reviewed evaluations

	Number of reports	%
Income, consumption or expenditures	30	81%
Assets (productive and durable goods)	28	76%
Productive assets	28	76%
Food security and nutrition	23	62%
Productivity	21	57%
Savings	18	49%
Occupation	17	46%
Credit	16	43%
Community participation	13	35%
Poverty	5	14%
Agricultural inputs	7	19%

Source: authors' own elaboration.

5. Evidence from impact evaluations of combined social protection and agricultural intervention programmes

This section discusses and summarizes evidence – following the FAA typology⁷⁸ – of the complementary roles that agricultural and social protection programmes can play in contributing to poverty reduction and food security outcomes, based on a review of the selected evaluations. We present evidence of the impacts of the joint implementation of these interventions and, when available, of their synergies and present a brief summary – highlighted in bold and italics – of the main findings as the introductory paragraph for each subsection.

The use of the FAA typology helps us to highlight gaps in the literature. As discussed previously, the focus of the evaluations selected for this review was on individual/household level indicators. A missing dimension in the evaluation literature concerns the impact at community and macro levels of combined interventions regardless of category of combination, whether SLP, CP or OP.⁷⁹ In this context, the evidence reviewed in this section relates to supporting households in making productive investments; strengthening risk management and resilience at the household level; improving the efficiency of labour allocated to on-farm activities to increase income generation; and increasing household food consumption and reducing poverty incidence and depth (Gavrilovic *et al.*, 2016).

Due to the lack of studies concerned with the community/local economy level,⁸⁰ this review will also consider increased participation by beneficiaries in the social life and productive chains of their communities as a means to reduce social and economic exclusion. Spillover effects, i.e. effects of the combined interventions on non-beneficiaries will, also be highlighted when available.

5.1 Supporting households in making productive investments

Table 7 summarizes the impacts of the combined agricultural and social protection programmes on investment in land (owned land, rented land and/or cultivated land), on productive assets, investment in inputs and how these investments may have translated into higher yields. These impacts are detailed in the two subsections below.

⁷⁸ See Gavrilovic *et al.* (2016) for more details on the typology.

⁷⁹ The FAA also analyses the complementary role of combined agricultural and social protection interventions at the community/local economy level in: 1) stimulating food markets; 2) supporting decent employment in agricultural labour markets; 3) supporting the development of social networks; and 4) stimulating economic diversification.

⁸⁰ As mentioned above, Garcia, Helfand and Souza (2016) is the only evaluation whose results incorporate the aggregate effect of the expansion of both *Bolsa Familia* (social protection) and subsidized rural credit for family farmers in Brazil on municipal-level indicators. Thus the aggregate impact of the combined intervention at the ‘community/local’ level is captured in this study.

5.1.1 Investment in land: Owned land, rented land and cultivated land

Overall, the results of the impact evaluation show increases in access to and/or utilization of land. For SLPs, the evidence suggests that in the case of Bangladesh (e.g. CFPR Phase 1 and 2 and FSUP) part of the returns yielded by the livestock-based income-generating activities was invested in using more land, either through purchasing or renting. For CPs, there is evidence of more land utilization in Lesotho due to the combination of the LFSSPP and the CGP and in Peru due to the overlap of rural credit and the CCT programme Juntos. In India, the IKP programme led to an increase in the area of cultivated land by the poorest people.

The evaluations of CFPR Phase 1 and 2 suggest that beneficiaries are investing in land. Ahmed *et al.* (2009) looked at the impact of CFPR Phase 1 in the short term (just after the end of the intervention) using a difference-in-differences with propensity score matching methodology. The comparison group was a set of non-selected extremely poor people. The authors found a positive and statistically significant impact on rented land of 1.77 decimals,⁸¹ which represents an increase of 13.5 percent in relation to the baseline indicator for the comparison group. However, programme evaluators did not find any impact on the ownership of cultivable land in the short run. Emran, Robano and Smith (2014) re-examined the same dataset using a different treatment and comparison groups, redefined as per the compliance and non-compliance with inclusion and exclusion criteria, and a series of different estimation techniques, mostly difference-in-differences with alternative propensity score matching methods. A year after the end of the intervention, they found very similar results to those reported in Ahmed *et al.* (2009). There was no impact on total land owned, but there was an increase in ownership of homestead land. Estimates of these impacts vary between 12 and 22 percent of the baseline level of the overall sample depending on the specification used and on the definition of treated and control group.

Krishna, Poghosyan and Das (2010), using the data as two previous studies but adding a new wave of survey data (2009), applied simple difference-in-differences analysis to assess both short and medium term (one and four years after the intervention respectively) and found that land ownership increased in both periods. Das and Misha (2010)⁸² and Raza, Das and Misha (2012) used difference-in-differences combined with propensity score matching techniques and found that the positive impact on land holding in the medium term (2002-2008) was higher than in the short term⁸³ (2002-2005) and statistically significant. Similar results were also found for cultivable land holdings. Positive and significant impacts on mortgaged and shared land were found in both the short and medium terms, with larger impacts for the latter. This suggests that early income gains from the income generation

⁸¹ Decimal is a common unit of measurement for land in Northern Bangladesh: 1 decimal= 0.01 acre = 40.5 m².

⁸² The authors also investigate the impact of CFPR Phase 1 on the proportion of households that report owning homestead land and the proportion of households that report owning cultivable land. They find short- and medium-term positive impact for both indicators.

⁸³ The short-term impact was not statistically significant, similar to the findings reported by Ahmed *et al.* (2009) and Emran, Robano and Smith (2014).

activity supported by the CFPR Phase 1 were invested in land purchase, pointing to a sustainable impact of the intervention.

Misha *et al.* (2014) looked at the long-term impact of CFPR Phase 1 adding the 2011 survey data wave.⁸⁴ The authors confirmed a 5 percentage point (pp) increase in the probability of owning homestead⁸⁵ land by 2005 and an additional increase of 4pp by 2008. However, in 2011 no additional effect was identified. For the ownership of cultivable land, there was a positive significant effect of 4pp by 2008 but that was reverted by 2011. The authors partly attributed the smaller effects observed in the long term to the fact that the comparison group would eventually ‘catch up’ with the treated group,⁸⁶ either through the proliferation of NGOs implementing similar interventions or to spillover effects of the CFPR itself. However, no robust evidence for these spillover effects are available at least for CFPR Phase 1.

With regard to CFPR Phase 2, Raza and Ara (2012) found an increase of 0.09 decimals in the amount of homestead land acquired (at a 10 percent level of significance), mostly rented land, just after the end of the intervention period (2009). Given a baseline level of 0.87 decimals for the comparison group, this would represent an increase of 10 percent. The authors also found an increase of 0.80 decimals for cultivable land owned, though this result is not statistically significant.⁸⁷

The randomized control trial documented in Bandiera *et al.* (2013, 2016) found that after two and four years of the intervention, beneficiaries were 7pp and 11 percentage points more likely to rent land and 0.5pp and 3pp more likely to own land, respectively.⁸⁸ These increases are very large relative to baseline levels: 188 percent for renting land and 38 percent for owning land. Bandiera *et al.* (2016) also found that the value of land owned had increased by an average of USD 327 four years after the intervention – a 187 percent increase over baseline values. The authors argued that since land was not among the assets distributed by the programme, these results confirm that the income generated by the livestock business supported by CFPR Phase 2 was invested in other productive assets allowing beneficiaries to have some long-term security. They conclude that easing capital and skills constraints through CFPR Phase 2 has had a lasting impact on the economic lives of ultra-poor women in the intervention sites.

BDI (2012) found similar results for the Food Security for the Ultra-Poor (FSUP) programme. Despite not showing disaggregated difference-in-differences estimates for the

⁸⁴ CFPR Phase 1 ended in 2004.

⁸⁵ Note that previous studies have focused on the impact on the area (in decimals) owned or cultivated rather than on the ownership (or not) of land. It is unclear why results for land ownership (in area) are not reported in Misha *et al.* (2014).

⁸⁶ This catching up by the comparison group is observed for many but not all outcomes, as will be seen later in the review. According to the authors, the catching up is due to the comparison group having access to similar SLPs.

⁸⁷ In terms of percentage variation, if statistically significant, it would represent a 93 percent increase over the baseline level of 0.87 decimal.

⁸⁸ Unlike Raza and Ara (2012), no results for land owned or rented in terms of area are reported in Bandiera *et al.* (2013, 2016). Similarly, Raza and Ara (2012) do not report on the impacts of CFPR Phase 2 on the proportion of households who own land or rent land.

impact of the programme on land ownership or homestead land, the report does show that homestead land increased remarkably between baseline and follow-up survey for the beneficiary group, probably due to an increase in the proportion of beneficiary women that moved away from bull-fattening towards crop production.⁸⁹

It is worth noting how most evaluations of integrated livelihoods approaches in Bangladesh look at land ownership, land leasing/renting and homestead land ownership as an outcome of interest.⁹⁰ Ownership and access to land is positively related to poverty in the rural areas and is used to select beneficiaries' livelihoods programmes, with a cap on the size of land that the beneficiary owns. The asset menu offered to households relies on the assumption that animal husbandry is the best option for women with very limited access to land. The evidence so far suggests that households invest in land either by purchasing or renting it. These results offer some food for thought with regard to the limited options offered to women in most integrated livelihoods interventions in Bangladesh and shed light on the potential productive impact of enabling rural women to have access to land, as well as the need to address institutional and legislative issues associated with this process.

Two other evaluations, both in India, looked at the impact of programme interventions on land ownership or land access. Bauchet, Morduch and Ravi (2015) found no impact on land ownership as a result of the SKS-UPP programme, which was part of the Graduation into Sustainable Livelihoods Programme.⁹¹ Prennushi and Gupta (2014) found that a positive impact of the Indira Kranti Patham (IKP) on land cultivation among the poorest households (an additional 0.5 acres) when comparing mid-entry cohorts (treated) with non-beneficiaries (control), but not for other income or entry cohort groups.

In Africa, Dewbre *et al.* (2015) looked at the impact of the combination of an unconditional cash transfer, Lesotho's Child Grant Programme (CGP) and the LFSSP, a food security programme that distributes vegetable seeds and training on homestead gardening and nutrition. They found that the combined programmes led to a large increase - over a third of a hectare - in land cultivated or operated by beneficiary households. However, labour-unconstrained households drove this result, as their land holdings increased by more than half a hectare. The authors attributed more of the impact to the three years of cash transfers of the CGP than to the LSFSSP, since the latter focused primarily on homestead gardening.

Only two evaluations focusing on the overlap of Peru's CCT programme (*Juntos*) with a rural credit programmes and a rural development project (*Sierra Sur*) looked at cultivated land as an outcome of interest. Del Pozo (2014) found a 0.64 ha (31 percent) increase in

⁸⁹ While bull-fattening was the prevalent income-generating activity chosen by 54 percent of beneficiary women as per the 2011 (midline survey), in 2012 (endline survey), the proportion of treated households engaged in bull fattening had decreased to 25 percent. This decrease was accompanied by an increase from 17 percent to 43 percent in crop cultivation during the same period.

⁹⁰ Indicators on land refers to the plots, located not in the immediate surroundings of the main dwelling used by the households to cultivate major crops, such as rice, maize, etc. While homestead land refers to plots generally of smaller size located around the farmhouse, used by the household to produce vegetable for its own-consumption needs.

⁹¹ The other evaluations of the CGAP/Ford Foundation Sustainable Livelihoods Programme, at least as reported in Banerjee *et al.* (2015), did not specifically look at land ownership/cultivated land/homestead land. Nor did the asset index created for these six evaluations include any land-related variable.

cultivated land over the baseline for the comparison group among farmers benefiting from both *Juntos* and rural credit. Larger effects were found if credit was from publicly owned banks or from microfinance institutions, 0.98 ha and 0.73 ha respectively, rather than from private commercial banks. This synergistic effect is almost twice the impact of *Juntos* alone: 0.33 ha (16 percent increase over the baseline cultivated area of the comparison group). The Aldana, Vásquez and Yancari (2016) assessment of the impact of *Sierra Sur* on *Juntos* beneficiaries found no impact on the value of the land owned by *Juntos* beneficiaries because of participating in *Sierra Sur*.

5.1.2 Investment in productive assets, sustainability and impacts on production

Overall, the evaluations of SLPs implemented in Asia and Africa show positive impacts on asset accumulation, including both productive and durable assets, which go beyond the direct effect of the asset transfer implemented by the programmes. There is also evidence that these impacts, although observed for all income quintiles, have been higher for better-off beneficiaries. It is also worth noting that the SLP pilots in Honduras and Peru had much weaker impacts, particularly on productive assets.⁹² Strong impacts on asset accumulation were observed for the Ethiopia pilot where the asset transfer was combined with the consumption support linked to PSNP. Similar evidence was found in the evaluations of the Ethiopian CP that brought together PSNP and OFSP/HABP. For other CPs and even some OPs, there is evidence that agricultural interventions, such as extension services and access to better technology, are likely to trigger asset accumulation and adoption of new technologies when combined with cash transfers or public works programmes. Positive impacts were observed for the IKP in India and the P-135 in Vietnam as well as for the interaction between the joint implementation of different productive programmes such as Sierra Sur, rural credit and the programme Haku Wināy and Juntos in Peru; the CSR and EP in El Salvador; and the Bolsa Familia and PRONAF in Brazil. However, there is only mixed evidence of the extent to which investments in productive assets translate into greater productivity and higher business revenue with the exception of Haku Wināy in Peru.⁹³ The local procurement for school feeding programme (LEAP) in Burkina Faso seems to have led members of participating farmer's organizations to invest more on productive assets and also increased their revenue and profitability.

As expected, most of the evaluations of SLPs that either rely on the distribution of livestock or on investment grants to purchase productive assets show a positive impact on livestock

⁹² These results suggest that, at least, as far as the SLPs are concerned, there may be challenges in implementing this type of intervention in the LAC region, even on a small scale.

⁹³ It is somewhat risky to attribute the less striking results observed in the Latin American evaluations to the poor implementation of CP interventions, since these evaluations have fewer of the desirable features of a robust evaluation than those implemented in the case for SLPs (see discussion in Section 4). In addition, Escobal and Ponce (2016a, 2016b) evaluation of the pilot Haku Wināy in Peru, a programme that aims to strengthen the access of *Juntos* beneficiaries of economic inclusion programmes, for instance, show better results on productive impacts than other evaluations of CPs in the region, but unlike the other programmes it was evaluated using an experimental design.

ownership. The relevant question is the degree to which these impacts are sustainable in the longer term and whether beneficiaries expand or diversify their investments beyond the initial transfers.⁹⁴ As a result of the CFPR Phase 1, Ahmed *et al.* (2009) found impacts on livestock and poultry ownership in the short term. Emran, Robano and Smith (2014) also found increases in livestock as well as in other productive assets, such as fishing nets, rickshaws and vans, and big trees, but the latter results did not hold for the poorest people.

To look at CFPR impacts on productive investments, Krishna, Poghosyan and Das (2010) used an asset value index that included livestock and poultry as well as durable goods (e.g. chairs, radios, televisions) and other productive assets (e.g. rickshaws and vans). They found an increase in asset index in the short term (2002-2005); this positive impact, however, was slightly attenuated in the medium term (2005-2008). Das and Misha (2010) and Raza, Das and Misha (2012) found positive impacts that seemed to be sustained over the medium term, particularly for poultry, whose numbers actually increased faster after 2005. As for other types of livestock, the positive short-term impacts persisted in the long term.

The authors also found short- and medium-term impacts on the ownership of rickshaws and vans. In the short term, there were no impacts on the ownership of big trees but this increased over the medium term. Misha *et al.* (2014) found large increases in livestock holdings in the short term that faded away in the longer term. CFPR Phase 1 led to an increase in the number of cows or bulls owned by 1.5 units by 2005, but this effect decreased by 0.5 units in each of the following survey rounds, with the overall effect to be only 0.4 units by 2011. A similar pattern was observed for poultry, with a final effect of 0.4 units by 2011. For goats and sheep, the positive effect observed in the short (0.3 increase) and medium (0.2 increase) term actually vanished over time. Similar to what was observed with the impact on land access (purchase or renting), it was the control group catching up with the treated group that triggered the long-term impact attenuation.

Raza and Ara (2012) found an increase in livestock ownership and in total value of livestock during CFPR Phase 2. These results were driven by cattle and poultry ownership and value (both indicators are significant at 5 percent). No impacts were observed for small ruminants (e.g. sheep/goats). Similarly, there was no short-term impact on ownership or value of rickshaw/vans or big trees. The increase in livestock ownership was not unexpected, since the programme includes asset transfers. However, there was no evidence supporting accumulation of other productive assets in the short term. The assets distributed by the programme were not depleted after the programme was phased out.

Bandiera *et al.* (2013) found that households participating in CFPR Phase 2 owned, on average, one more cow after both two and four years, which corresponds to the average number of cows transferred by the programme (cattle was the most commonly transferred asset whose ownership among the targeted poor was negligible at baseline). The number of poultry and goats also increased in line with average programme transfers by 2.42 for poultry and 0.74 for goats. However, there was a statistically significant drop in ownership of these assets between two and four years after the intervention started, suggesting that households

⁹⁴ See McCord and Slater (2015) on the limits of a strategy that focuses solely on entrepreneurship to achieve the objectives of sustainable and higher quality employment.

adjusted their stocks. Finally, the authors found that the net impact on the value of livestock ownership reached BDT 9 983 and BDT 10 734 after two and four years respectively. Since the average asset transfer value was BDT 9 500, the 13 percent increase in the value of livestock ownership four years after the programme ended suggests that the asset transfer value was preserved.⁹⁵ Four years after the beginning of the programme, statistically significant increases above the initial transfer occurred, presumably through the production of offspring and acquisition of new livestock.⁹⁶ Thus, there is some evidence of lasting effects of productive asset transfers made by the CFPR Phase 2.

HTSPE (2011) found that the average productive asset value for cohorts with longer participation in the Chars Livelihoods Programme (CLP) Phase 1 was BDT 37 119, above the threshold of BDT 33 500 established for graduation. For cohorts with a shorter involvement in the programme, the asset value was below the threshold (BDT 30 831).

Hernandez *et al.* (2015) found that participation in the ER+ programme in Bangladesh had a positive effect on the accumulation of farm assets and, to a lesser extent, on non-farm and durable assets as compared to beneficiaries who only received the “protective ER” - food and cash for work – and non-beneficiaries. Similarly, BDI (2012) estimated that the FSUP led to an increase in the ownership of productive assets by households, which translated into an increase of 0.056 points in the productive asset score. The authors also found an increase of BDT 20 802 in average household asset value.

The evaluation of the SKS Ultra Poor Program (UPP) in India by Bauchet, Morduch and Ravi (2015) found an increase of 26pp in the likelihood of owning livestock, including animals provided by the intervention (e.g. buffaloes and goats). It also found a small impact on poultry ownership of 2pp, which was not a direct transfer from the intervention and would only be significant at the 10 percent level. A positive impact on the agriculture asset index⁹⁷ of 0.35 was also found, but no impact was identified for non-agricultural asset index or for the ownership of ploughs. Since the agricultural asset index includes livestock, the programme’s asset transfer probably drove the impact on this indicator. Moreover, the positive impact on livestock ownership was not to the extent expected by the evaluators, since many beneficiaries only retained their livestock for short period. In fact, the authors found that about 43 percent of the beneficiary households had sold their livestock, mostly to pay debts.

In Banerjee *et al.* (2015), pooled results for the evaluations of the six pilot Graduation into Sustainable Livelihoods projects revealed a positive increase by 0.26 standard deviations on the total asset index (including productive and household assets). This result holds for both endline 1 and endline 2, showing the sustainable impacts of the programme. However, the impact on asset growth was much larger for higher quantiles than for lower quantiles: 0.36 standard deviations for the 90th quantiles and 0.04 standard deviation for the tenth

⁹⁵ According to the authors, all monetary values were deflated to 2007 prices using the Bangladesh Bank’s rural CPI estimates.

⁹⁶ Bandiera *et al.* (2016) explained this result by the total value of cows, which more than compensates for the fall in the total value of goats, which actually decreased 4 years after the intervention.

⁹⁷ The agricultural assets index is the principal index of agricultural durable goods and animals owned by the household (e.g. plough, tractor, pump, livestock).

quantile. Breaking down this impact into different categories of assets, the authors show that there was an increase in both household (durable) and productive assets (including livestock), but that the increase in the latter was larger. Productive assets increased by 15.1 percent and 13.6 percent compared to the control group means for endline 1 and 2, respectively. They also show that the impact on asset values owned by treated households at endline 2 was lower than the cost of the asset originally transferred to them, a result that is qualitatively similar to that reported by Bauchet, Morduch and Ravi (2015). However, according to the authors, this relatively minor decline was entirely due to adjustments made in the short term after the asset transfers and was observed only between baseline and endline 1. Between endline 1 and endline 2 there was no further decline. These results are robust to country-level analysis except for Honduras, where the programme had a negative significant impact on the total asset index and no impact on total asset value and productive asset value, and Peru, which did not show any impact on any of these indices, except for the household (durable) asset index. In the case of Honduras, the nature of the asset transfers (hens) could partly explain these results, since there was a disease that killed many hens in the intervention communities. It is also worth mentioning that, unlike other pilots where consumption support was based on regular cash transfers, in the case of Honduras it was based on a one-time food transfer to cover six months. This might also explain why some of the asset transfers may have been consumed as food by beneficiaries.

The largest impacts on the total asset index, particularly on the productive asset index, were observed in the Indian and the Ethiopian pilots (Banerjee *et al.*, 2015). The Indian pilot, according to the authors, is very interesting due to its similarity to the CFPR Phase 2 experimental evaluation results found by Bandiera *et al.* (2013). The Indian pilot took place in West Bengal, a region quite similar⁹⁸ to the intervention area in Bangladesh. Banerjee *et al.* (2015) found an increase in non-agricultural, non-livestock income by endline 2,⁹⁹ which was unrelated to the economic activities promoted through the intervention. This suggests again that households can diversify, in the medium term, beyond the assets provided by the programme. In the case of Bangladesh, the asset diversification was into land cultivation (see discussion above) rather than into non-agricultural assets as observed in India. In Ethiopia, a striking feature of the interventions was that both treated and control groups had access to the consumption support component of the interventions through the cash/food for work component of the PSNP. Thus, that component could not be solely responsible for the entire impact of the programme. However, as Ethiopia had the most expensive asset transfers of all of the six pilots, beneficiaries in theory could sell some of them to compensate for the lack of consumption support beyond PSNP payments.

Prennushi and Gupta (2014) found that the poorest beneficiaries of the IKP programme in Andhra Pradesh, India had a higher value of livestock and durable assets than the comparison group. In addition, the impact of the programme on investments in livestock was also larger for Scheduled Tribes participants, who tend to be poorer than the general population. Similarly, IRC (2012) found that P-135 II in Vietnam had a positive impact on both the asset

⁹⁸ Besides sharing a border, they have the same language and culture.

⁹⁹ The precise dates for endline 1 and endline 2 vary from pilot to pilot. Generally, endline 1 took place 24 months after the intervention finished and endline 2 a year after the first endline.

and durable goods indices for ethnic minorities and on the durable goods index for non-ethnic minorities.

Gilligan, Hoddinott and Tafesse (2009) did not find that PSNP had any positive impact on asset growth as measured by changes in the log value of livestock and tools between 2004 and 2006. On the contrary, the estimated impact was negative and statistically significant. Even for the subsample that participated in both PSNP and OFSP, the impact was not statistically significant, even though the point estimate was still negative. In any case, the comparison group largely drove these results, as non-beneficiaries experienced faster asset growth than the treated group.

The authors offered more evidence of the impact of both interventions on productive investment. Agricultural interventions under the OFSP (later rebranded as HABP) include credit, agricultural extension services, irrigation and water harvesting schemes and technology transfer, which includes advice on food crop production, cash cropping, livestock production, and soil and water conservation. Gilligan, Hoddinott and Tafesse (2009) found that, relative to a comparison group that neither benefited from the public work component of the PSNP nor from the OFSP, beneficiaries of the PNSP/OFSP were more likely to use improved agricultural technologies, observing a 10.7pp increase in the usage of fertilizers and a 4.8pp increase in the use of improved seeds. These represent significant effects in relation to the comparison group, since only 16 percent of households used fertilizer, while also improved seeds started from a very low base. Further, beneficiaries of the PNSP/OFSP were also more likely to own any non-farm business (6.7pp increase). Beneficiaries of both programmes were also more likely to use credit, but had more problems repaying loans and did not experience faster asset growth as per the aim of the OFSP programme. The authors also looked at the impact on public work beneficiaries who did not receive the PSNP combined with the OFSP. For these beneficiaries, there were no impacts on the use of improved agricultural technology, but there were positive impacts on the ownership of non-farm businesses. Thus investments on inputs seemed to be mostly driven by the combination of the PSNP with the OFSP.

Hoddinott *et al.* (2012) investigated the relative impact of PSNP both alone and jointly with OFSP/HABP on fertiliser use and agricultural investment by farmers growing cereals in Ethiopia between 2006 and 2010. They found that high levels of participation in the PNSP alone had no impact on fertiliser use or on investments in stone terracing or water harvesting but it did increase the probability of investing in fencing by 17pp. Where the OFSP/HABP interacted with high levels of PNSP payments (5 years), they found increases in the probability of using fertiliser and investments in fencing by 21 pp and 29 pp, respectively as compared to low participation in PNSP and no access to OFSP/HABP. Either adding the OFSP/HABP for farmers receiving high doses of PSNP (five years of payment for public work) or increasing public work payments to farmers receiving OFSP/HABP improved the probability that they would use fertiliser and invest in stone terracing and fencing. The point estimates do not indicate which combination of public work payments and OFSP/HABP support is most effective, but it does show that combining agricultural and social protection interventions can lead to higher levels of investments with potential long-term benefits (Hoddinott *et al.*, 2015).

Hoddinott *et al.* (2012) also showed that households receiving both OFSP/HABP support and five years of PSNP payments had significantly higher yields (kg/ha) than OFSP/HABP beneficiaries with fewer years of PSNP payments. However, households benefiting from longer periods of PSNP transfers and OFSP/HABP support did not have significantly higher yields than those who did not benefit from OFSP/HABP support and received fewer years of PSNP transfers. This result suggests that OFSP/HABP beneficiaries with more years of PSNP payments to support increased fertiliser use and agricultural investments were not able to translate such investments into improvements in yields, as compared to those who only received PSNP payments. Limitations of the evaluation design may partially explain the failure in finding positive impacts, which suggests that evaluations should look at how effectively investments in inputs are translated into higher yields.

Dewbre *et al.* (2015) found strong impacts on agricultural assets among joint beneficiaries of the CGP and LFSSP in Lesotho. The use of any kind of agricultural assets increased by 11pp (13pp for hoes, 6pp for sprayers, and 8pp for tractors) among farmers that benefited from both interventions. The ownership of some of these assets also increased – by 20pp for hoes, 4.7pp for planters and 4.8pp for cultivators. These impacts were largely absent among farmers that participated in two years of CGP only, with the exception of ploughs, whose use increased. There were reductions in the purchase of pesticides corresponding to an increased use of home-produced pesticides and an increase in the use of seeds, particularly in labour-constrained households, corresponding with a decrease in seed purchases, since its distribution was part of the LFSSP. It is interesting to observe that impacts on crops were larger than the impact on livestock as stocks of the latter had actually been reduced after two years of the CGP; an additional year of CGP plus LFSSP seems to have somewhat attenuated this negative effect.

Pace *et al.* (2016) estimated the impact of benefiting from both the SCTP and the FISP in Malawi as well as the impacts each programme on its own as compared to a control group that did not benefit from either. Differences between the total impact (SCTP+FISP) minus each one of the “single” impact of each one (SCTP or FISP) or the sum of their impact yield the degree of complementarity (or synergies) between the two programmes. They found that both programmes increased the probability of having chickens and goat/sheep and the average numbers of the animals owned by the household. However, the total incremental effect (synergy) was not statistically significant, except for the number of goats and sheep.¹⁰⁰ The synergistic effect was positive for both ownership and quantity of pigeons, doves and ducks. Similarly, both programmes led to increased expenditures and revenues from these livestock, but the total incremental effect was not statistically significant, except for in labour-constrained households. Synergies were not observed for ownership and quantities used of agricultural inputs. Participation in FISP significantly increased the percentage of fertilizer users by 47.2pp, increased the quantity of chemical fertilizers used and decreased the quantity of organic fertilizers used. It also increased the percentage of users of improved or hybrid seeds by 12.5pp. The joint impact of FISP and SCTP was positive and significant

¹⁰⁰ As baseline values are quite low, the synergistic effect had an impact of 93 percent over the baseline level of the control group (0.074 units) and the total impact of the combined programmes was 221 percent (0.238 units).

only for chemical fertilizers. As for production indicators, the authors did not find any synergies. FISP did help SCTP beneficiaries to produce more maize, but it did so through an additive rather than a multiplicative process. On its own, FISP increased the percentage of households engaged in maize production (by 6.7pp) and also the quantity of maize produced, especially in labour-constrained households. Participation in SCTP alone increased both the proportion of households growing groundnut and the quantity they produced: the point estimates are similar to the impact observed for the FISP for both indicators. There was no positive synergistic effect on the value of total production, but FISP had overall positive and statistically significant effects (52.2 percent over the baseline level) and the SCTP had positive effects for labour-unconstrained households (22.3 percent over the baseline level).

Upton *et al.* (2012) showed that members of farmers' associations that participated in local procurement for supplying the school feeding programme in Burkina Faso increased their purchases of small productive assets such as hoes and shovels. Moreover, these farmers increased their purchases of larger traction assets such as traction animals and vehicles. According to the authors, these positive impacts on productive asset purchases suggest that the purchases may have led to improvements in on-farm management practices and productive efficiency. In addition, the LEAP led to an increase of 25 percent on the average revenue from farmers from participating organizations.

Aldana, Vásquez and Yancari (2016) showed that rural beneficiaries of the *Juntos* programme in Peru who also received the capacity development components of *Sierra Sur* were more likely to adopt more productive practices after receiving the treatment, in particular those practices related to better natural resource management. They also invested more financial resources in both agriculture and animal husbandry than a matched sample of *Juntos*-only beneficiaries did. However, the adoption of better production technologies and more investment did not lead to a positive impact on net gross income, which was actually negative and statistically significant. The authors speculate that differences between treated and comparison areas, where the latter has better market connectivity, may explain this negative result.¹⁰¹ Moreover, it was not possible to apply difference-in-differences given the lack of a proper baseline. Thus, the authors relied on propensity score matching single *ex post* differences to estimate these impacts.¹⁰² In any case, heterogeneity analysis shows that better-educated households (head and spouse) with a higher initial level of assets experience larger and statistically significant impacts on both gross and net income.

Looking at the overlap of *Juntos* and the rural credit programme, Del Pozo's (2014) findings suggest that beneficiaries with access to agricultural credit were able to invest more in poultry. The point estimate suggests an increase of 3.92 units, which represents an impact of 52 percent over the control group at baseline. This impact is similar across different agricultural credit providers (public banks and microfinance institutions). No impact was found for other types of animals (cow, sheep, and goats) or other agricultural assets.

¹⁰¹ The authors also cite the results of a qualitative evaluation that seem to suggest that the revenue of the *Juntos* beneficiaries improved after they received the capacity building component of *Sierra Sur*.

¹⁰² Note that qualitative interviews also reported in Aldana, Vásquez and Yancari (2016) suggested that the adoption of the new practices led to an increase in production and household net income. Thus the qualitative results are at odds with the quantitative results.

The author concludes that *Juntos* beneficiaries that benefit from rural credit are more likely to invest in more liquid assets such as poultry.

Escobal and Ponce (2016b) found an increase in the number guinea pigs owned by *Juntos* beneficiaries who participated in the pilot *Haku Wiñay* compared to the control group, which mostly received only *Juntos*. Although the increase in the number of hens owned was not statistically significant, there was an increase in egg production, seven times higher than the baseline values. This increase has been clearly attributed to the new technologies transferred by the programme. Moreover, there was also an increase in both natural and cultivated pasture, which was higher for the latter (37pp). This increase in pasture was mostly used to feed the farm's own animals instead of selling in the market. The authors also found increases in the number of new varieties of green leaves, vegetables and fruits as well as increases in the sales revenues from green leaves and vegetables.

In Colombia, Moya (2016) found that *Oportunidades Rurales* had a positive impact on productive and total asset value, but no impact on production, access to financial markets or farmers' markets. The interaction between *Oportunidades Rurales* and the CCT programme *Familias en Acción* had a negative impact. The author found evidence that farmers who were beneficiaries of *Familias en Acción* at the time they participated in *Oportunidades Rurales* experienced a reduction in the value of productive and total assets. According to the author, three factors can explain these negative results: 1) beneficiaries' fears that they could lose their eligibility for the cash transfers if they took part in *Oportunidades Rurales* and increased their level of asset ownership; 2) *Oportunidades Rurales* was designed for better-off farmers and not the extremely poor who are the beneficiaries of *Familias en Acción*; and 3) the fraudulent last minute inclusion of beneficiaries of *Familias en Acción* (SISBEN level 1) in farmers' organizations so that they could apply for the *Oportunidades Rurales* resources.

De Sanfeliú *et al.* (2016) assessed the impact of the joint implementation of El Salvador's CCT programme, *Comunidades Solidarias Rurales*, and rural development interventions, which are divided into food and nutritional security (SAN) interventions that targeted the poorest smallholders and productive value chain (EP) interventions for well-off smallholders. The authors found that receiving both the CCT and the EP support had positive impacts as opposed to just receiving EP. Households with both types of support were between 10 to 15 pp more likely to introduce a new crop or type of animal (livestock or poultry) compared to similar households that only received the EP. However, no statistically significant impacts were found for indicators such as asset index (durable and productive), agricultural income or productivity (value of crop per area). Farmers who received both CCT and SAN interventions were 13 to 15pp more likely than SAN-only recipients to have access to formal credit. No other impact on agricultural investment or production was found. The authors also compared farmers who took part in a SAN intervention after leaving the CCT programme with former CCT beneficiaries who did not benefit from SAN and found that the former group had more assets. Overall, the evaluation of the interaction between the three types of interventions suggests that participating (or having participated) in CCT programmes enables access to formal credit. Moreover, continuous receipt of the transfers

seems to be important in that it allows beneficiaries to adopt new productive assets, possibly under the influence of the advice and information received through SAN activities.

Garcia, Helfand and Souza (2016) assessed the impact of expanding the coverage of *Bolsa Familia* and rural credit for family farmers (PRONAF) at the municipal level in Brazil. They found that PRONAF had no impact *Bolsa Familia* had negative impact on agricultural productivity (value of the production in BRL/ha¹⁰³). However, the interaction of both programmes is positive, meaning that participation in both *Bolsa Familia* and PRONAF would have a positive impact on agricultural productivity. However, as only 2.6 percent of family farmers received both programmes at the same time, the positive effect of the interaction was too small to compensate for the direct negative impact of *Bolsa Familia*. Overall these results are robust across regions and different farm sizes (500ha, 100ha, 20ha). Although there is some minor regional variation between the Northeast and the South of the country, the estimates for the interaction component are always positive.

The authors also looked at the channels through the two programmes could be affecting the outcome of interest. They found that growth in PRONAF coverage was associated with higher expenditures on production, such the purchase of fertilizers, farm machinery and tractors, reduction in family labour and access to electricity. On the other hand, the expansion of social protection programmes like *Bolsa Familia* was associated with a lower value in production, lower expenditures on production, fewer tractors per farm and less money spent on fertilizers, but also with a higher proportion of farms using fertilizers, machinery and technical assistance. Finally, the interaction effect has a positive association with the value of production, the use of family labour, access to electricity and technical assistance, but a negative association with machinery, tractors per farm and expenditures on fertilizers. The authors conclude that these results suggest that the expansion of *Bolsa Familia* had negative impacts on productivity possibly due to the reduction in both adult and child labour caused by the programme. However, they also note some positive productivity impacts, such as the increase in access to electricity, and greater expenditures on productive inputs such as fertilizers and machinery.

A clear recommendation from the Garcia, Helfand and Souza (2016) evaluation is to better integrate the two programmes in order to exploit positive synergies. Notice that unlike other results, the synergies reported in Garcia, Helfand and Souza (2016) are at the municipal level, thus capturing the impact of the programme on both beneficiaries and non-beneficiaries.

¹⁰³ Brazilian currency (Reals)

Table 7 Impacts of combined programmes on productive investments

Indicator	Impact	Country	Combined programme (category)
Land ownership, access to land or cultivated land	<p>Positive: short term – a year after the programme, mostly homestead land - Ahmed <i>et al.</i> (2009); Emran, Robano and Smith (2014)</p> <p>Positive: medium term, also ownership of cultivable land - 4 years after end of programme – Raza, Das and Misha (2012) and Das and Misha (2010)</p> <p>Positive, but stagnating: long term - no additional gains after seven years - Misha <i>et al.</i> (2014)</p> <p>Positive: short term (more rented than owned land) - Raza and Ara (2012)</p> <p>Positive: short and medium term (more rented than owned land, but significant for both) – Bandiera (2013)</p> <p>No impact: land ownership – Bauchet, Morduch and Ravi (2015)</p> <p>Positive: land cultivation by the poorest – Prennushi and Gupta (2014)</p> <p>Positive: operated land – Dewbre <i>et al.</i> (2015)</p> <p>Positive: cultivated land (higher than CCT only) – Del Pozo (2014)</p> <p>No impact: land ownership</p>	Bangladesh	CFPR (Phase 1) (SLP)
		Bangladesh	CFPR (Phase 2) (SLP)
		India (Andhra Pradesh)	Graduation into Sustainable Livelihoods – SKS (SLP)
		India	IKP (CP)
		Lesotho	
		Peru	CGP+LFSSP (CP)
		Peru	Juntos and rural credit (OP)
			Juntos and Sierra Sur (OP)
Productive assets	<p>Positive: short term – livestock and poultry – Ahmed <i>et al.</i> (2009) and fishing nets, rickshaws and vans and big trees – Emran, Robano and Smith (2014).</p> <p>Positive: medium term – asset value index (larger impact in the short term) – Krishna, Poghosyan and Das (2010), Das and Misha (2010) and Raza, Das and Misha (2012) report similar results as Emran, Robano and Smith (2014) also for the medium term.</p> <p>Positive, but stagnating: long term - no additional gains after seven years - Misha <i>et al.</i> (2014)</p> <p>Positive: short term – livestock ownership (cattle and poultry) and total value of livestock but not beyond what has been distributed by the programme – Raza and Ara (2012)</p> <p>Positive: medium term – cattle, poultry, and goats. Value of livestock owned increased over the value of the initial transfer after four years (by 13 percent) – Bandiera <i>et al.</i> (2013)</p> <p>Positive: value of productive assets (e.g. land, livestock, boat, rickshaw, etc) - HTSPE (2011)</p> <p>Positive: productive farm assets, non-farm assets and durable goods – Hernandez <i>et al.</i> (2015)</p>	Bangladesh	CFPR (Phase 1) (SLP)
		Bangladesh	CFPR (Phase 2) (SLP)
		Bangladesh	CLP (Phase 1) (SLP)
		Bangladesh	ER+ (SLP+CP)
		Bangladesh	FSUP (SLP)

	<p>Positive: productive asset ownership– BDI (2012)</p> <p>Positive: agricultural asset ownership (including livestock)</p> <p>No impact: non-agricultural asset index and plough ownership – Bauchet, Morduch and Ravi (2015)</p> <p>Positive: value of livestock and durable assets – Prennushi and Gupta (2014)</p> <p>Positive: asset index and durable good index for non-ethnic minorities – IRC (2012)</p> <p>Negative: value of livestock and tools</p> <p>Positive: use of improved agricultural technologies (fertilizers, improved seeds) and ownership of non-farm businesses – Gilligan, Hoddinott and Tafesse (2009)</p> <p>Positive: fertilizer use and investments in fencing and terracing – Hoddinott <i>et al.</i> (2012)</p> <p>Positive: use of agricultural assets and ownership of some of them - Dewbre <i>et al.</i> (2015)</p> <p>Positive or neutral and no synergistic effect: use of chemical fertilizers and improved seeds (FISP only) – Pace <i>et al.</i> (2016)</p> <p>Positive: increase in purchase of small productive assets by participating farmer’s association members and in larger traction assets by those farmers that participated in the local procurement. – Upton <i>et al.</i> (2012)</p> <p>Positive: adoption of more productive practices and more investments in crop production and animal husbandry – Aldana, Vásquez and Yancari (2016)</p> <p>Positive: investment on poultry</p> <p>No impact on other types of animals or other agricultural assets – Del Pozo (2014)</p> <p>Positive: guinea pig</p> <p>No impact: hens – Escobal and Ponce (2016b)</p> <p>Negative: value of productive and total assets – Moya (2016)</p> <p>Positive: introduction of a new crop or a new type of animal (CCT and EP)</p> <p>No impact (synergy) was found for other indicators – De Sanfeliú <i>et al.</i> (2016)</p> <p>Positive access to technical assistance and electricity</p> <p>Negative machinery, tractors per farm and expenditure on fertilizers – association of the interaction term – Garcia, Helfand and Souza (2016)</p>	<p>India (Andhra Pradesh)</p> <p>India</p> <p>Vietnam</p> <p>Ethiopia</p> <p>Ethiopia</p> <p>Lesotho</p> <p>Malawi</p> <p>Burkina Faso</p> <p>Peru</p> <p>Peru</p> <p>Peru</p> <p>Colombia</p> <p>El Salvador</p> <p>Brazil</p> <p>6 countries: Ethiopia, India, Pakistan,</p>	<p>Graduation into Sustainable Livelihoods – SKS(SLP)</p> <p>IKP (CP)</p> <p>P-135 II (CP)</p> <p>PSNP and OFSP (CP)</p> <p>PSNP and HABP/OFSP (CP)</p> <p>CGP and LFSSP (CP)</p> <p>SCTP and FISP (OP)</p> <p>LEAP (CP)</p> <p><i>Juntos</i> and <i>Sierra Sur</i> (OP)</p> <p><i>Juntos</i> and rural credit (OP)</p> <p><i>Juntos</i> and Haku Wiñay (CP)</p> <p><i>Más Familias en Acción</i> and <i>OR</i> (CP)</p> <p>CSR and rural development interventions (OP)</p> <p><i>Bolsa Familia</i> and PRONAF</p>
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	<p>Positive total asset index (productive and durable household assets, but higher for the former) in endline 1 and endline 2 – aggregate results for 6 countries and individual country evaluations except for Honduras:</p> <p>Negative impacts on total asset index and</p> <p>No impact on total asset value and productive asset value In Peru: No impact on asset indices except for positive impacts on household durable asset index – Banerjee <i>et al.</i> (2015)</p>	Ghana, Peru and Honduras	(rural credit) (OP)
Production and productivity	<p>Mixed: crop productivity (kg/ha) - positive or no impact depending on control group – Hoddinott <i>et al.</i> (2012)</p> <p>Positive but no synergistic effect: total value of production (particularly for FISP), production of maize (FISP only), production of groundnuts (both SCTP and FISP) – Pace <i>et al.</i> (2016)</p> <p>Positive: increases in revenue and profitability of farmers from farmers organizations participating in the local procurement – Upton <i>et al.</i> (2012)</p> <p>Positive: increase in the number of variety of green leaves, vegetables, fruits cultivated as well as on the sale revenue from green leaves and vegetables. Increases in egg production (in kg); access to cultivated and natural pasture – Escobal and Ponce (2016b)</p> <p>Positive: the interaction effect on agricultural productivity is positive – Garcia, Helfand and Souza (2016). Interaction term is positively associated with value of production, for the use of family labour, access to electricity and access to technical assistance, but negatively associated with machinery, tractors per farm and expenditures on fertilizers</p>	Ethiopia Malawi Burkina Faso Peru Brazil	PSNP and OFSP/HABP (CP) SCTP and FISP (OP) LEAP (CP) <i>Juntos</i> and <i>Haku Wiñay</i> (CP) <i>Bolsa Familia</i> and PRONAF (OP)

Source: Authors' own elaboration.

5.2 Strengthening risk management

As discussed in the theory of change presented in the introduction to this report, both agricultural and social protection interventions can help beneficiaries to better manage the risks they are exposed to, particularly those related to rural livelihoods. Regular and predictable social transfers, including public works, can prevent the depletion of productive assets when income shocks occur – a dimension incorporated into the SLP framework by the consumption support component – while, at the same time, encouraging rural households to invest more in their livelihoods by diversifying into higher-yield crops and livestock activities. By the same token, agricultural interventions can provide technical assistance and extension services on the sustainable management of natural resources, soil and water conservation practices, forestry and agroforestry, small-scale irrigation schemes, access to improved seeds and new technologies; such assistance can build resilience to economic as well as to environmental risks. Many of the evaluations selected for this review look at outcomes related to strengthening risk management by rural households that have benefited

from agricultural and social protection interventions. Some of the interventions had stronger risk management as a clear objective while others were less ambitious.

Indicators related to access to credit and savings, formal and informal risk-sharing arrangements, crop diversification and diversification of income sources, and reduction in negative risk-coping strategies have been used to assess how the combined interventions are supporting (and improving) the risk management strategies of their beneficiaries. Table 8 summarizes the main findings, which are discussed below.

5.2.1 Access to credit and savings

Overall, the evaluations of SLPs show positive impacts on savings and access to formal credit. As mandatory or incentivized savings is a key component of many of the SLP interventions this result does not come as a surprise. However, impacts seem to be attenuated when the programme is phased out. The evaluations also show positive impacts on credit access and/or a shift away from informal towards formal loans. A note of caution refers to the fact that positive impacts on financial inclusion seem to be restricted to better-off participants. Evaluations of CPs also show positive impacts on access to credit for beneficiaries such as in the case of the combination of the PSNP and the OFSP in Ethiopia. In Peru, Haku Wiñay seems to change the knowledge and perception of beneficiaries about financial services, but does not seem to have an impact on their usage. There have been positive impacts even in the context of OPs. For instance, in El Salvador, participation or having participated in the CCT programme seems to have made it easier for food and nutritional security project beneficiaries to gain access to credit, particularly formal credit.

The evaluations of CFPR Phase 1 revealed an increase in cash savings and formal loans and as well as a decrease in informal loans. Ahmed *et al.* (2009) showed that at baseline only eight percent of treated and 13 percent of the control group had cash savings. The difference-in-differences estimates yield an increase of 71pp in the proportion of CFPR Phase 1 participants with cash savings a year after the end of the intervention. This effect corresponds to an increase of 446 percent over the baseline level of the control group. Emran, Robano and Smith (2014) confirm this result, which is robust across different comparison groups and estimation methods. Krishna, Poghosyan and Das (2010) and Das and Misha (2010) found that this impact is sustained over the medium term (from 2002 to 2008), but Misha *et al.* (2014) showed a smaller impact over the long term (from 2002 to 2011) that was entirely due to the control group catching up with the treated group. In 2002, about 20 percent of the control group had cash savings; this proportion had increased to 53 percent by 2011 but was still far from the 92 percent of former beneficiaries of CFPR Phase 1 that reported cash savings.

Misha *et al.* (2014) and Raza, Das and Misha (2012) also assessed the impact of CFPR Phase 1 on the proportion of households with formal and informal loans and the value of these loans. Misha *et al.* (2014) revealed a sharp increase of 32.4pp from 2002 to 2005 in the proportion of beneficiaries with outstanding loans. This increase was somewhat attenuated in the medium and long term with an impact of 22.7pp (from 2002 to 2008) and 13.2pp (from 2002 to 2011), respectively. The proportion of beneficiary households with formal loans

seems to have stabilized slightly above 50 percent, up from a 2002 baseline of 3.6 percent, while the proportion of control households with formal loans increased since 2008, reaching 42 percent in 2011.

Misha *et al.* (2014) also showed that the CFPR Phase 1 seems to have led to a reduction in informal loans of -11.4 pp in 2005, -11 in 2008 and -8.3 in 2011. Raza, Das and Misha (2012) only reported on the value of outstanding formal and informal loans in the short (2002 to 2005) and medium term (2002 to 2008), but found results that are qualitatively similar to the ones found in Misha *et al.* (2014). The impact of the programme on the value of outstanding loans was positive for formal loans and negative for informal loans, both in the short and the medium term. The impact on formal loans was smaller in the medium term, BDT 634 in 2008, than in the short term, BDT 806 in 2005. For informal loans, there was no statistically significant difference between the short and medium term despite the point estimates suggesting a fall of BDT 118 in 2005 and BDT 188 in 2008. The authors considered these results encouraging and in line with the programme objectives and argued that the demand for microfinance loans for working capital is quite elastic, meaning that an incremental increase in income or savings, as experienced by the beneficiaries of the CFPR Phase 1, would lead to a reduction in the demand for loans, hence a smaller impact in the medium term.

Raza and Ara (2012) assessed the short-term impact of CFPR Phase 2 on savings. Their difference-in-differences estimates with propensity score matching revealed an increase of BDT 968.5, which represents 273 percent of the baseline level of the comparison group. Detailed information on the modality of savings suggests that the bulk of this change was due to the CFPR Phase 2 savings promotion. Bandiera *et al.* (2013) showed statistically significant positive impacts on savings both two years (2009) and four years (2011) after the end of the programme, with point estimates of BDT 983 and BDT 1051, respectively. The latter represented a ten-fold increase in relation to the baseline level. Bandiera *et al.* (2016) also looked at whether the household received loans and gave loans. The authors found positive impacts for both indicators after two and four years of the intervention – an increase of 11 pp (61 percent increase relative to the baseline) in the proportion of households receiving loans and of 5 pp (464 percent increase relative to the baseline) on the proportion of households making loans. The experimental evidence provided by the authors corroborates the non-experimental evidence from the CFPR Phase 1 and 2 and actually suggests somewhat stronger impacts.

Hernandez *et al.* (2015) found that participation in the ER+ programme had a positive effect on a household's total savings, with ER+ beneficiaries saving BDT 2 900 more than the comparison group. This value corresponds to 50 percent of savings at the baseline level for the overall sample of treated and control group. The authors also found that ER+ beneficiaries were more likely to have savings (from 12pp to 27pp, depending on control group and estimation methodology) and particularly to save for future investments, estimates ranging from 17pp to 33pp. No impact on loans or access to credit was noted in the evaluation paper, although the list of topics covered in the survey questionnaire does include information on both loans taken and loans made.

BDI (2012) difference-in-differences evaluation of the FSUP found an increase of 62pp in the proportion of beneficiary women with savings. Furthermore, the average level of savings increased by BDT 2 624, which corresponds to an increase of 83 percent over the baseline level of the comparison group. As for loans, the authors found a decrease of seven percent in the proportion of beneficiary women with loans, but an increase in the value of the loan by BDT 1 283, around 21 percent of the baseline level of the comparison group.

In their analysis of the pooled data for six pilots of the Graduation into Sustainable Livelihoods project, Banerjee *et al.* (2015), found very similar results to those reported in several of the evaluations of the SLP in Bangladesh. Overall, they reported positive impacts on total savings and the total amount deposited in savings during the previous month. However, the impacts were stronger in the short term (endline one) than in the medium term (endline two). There was an increase in total savings of PPP US\$151 by endline one that was halved to PPP US\$75 by endline 2.¹⁰⁴ Similarly the positive impact on the total amount deposited in savings in the previous month fell from PPP US\$7.25 to PPP US\$3.64 during the same period. The authors note that savings were mandatory during the first year of many of the pilots assessed, but not afterwards. Thus the increase observed by endline one is not surprising, however, the positive impact at endline two reveals some sustainability of this behavioural change, albeit attenuated. Disaggregated impacts by countries at endline 2 show no impacts on total savings in Honduras, although the point estimate is positive (PPP US\$31.70) and very strong positive results for Ethiopia (PPP US\$272). Positive and statistically significant impacts are reported for Ghana (PPP US\$10.5) and Peru (PPP US\$45.1).¹⁰⁵ In addition, the impact on the total amount deposited in savings in the previous month was only statistically significant for Ethiopia (PPP US\$8.16), although the point estimates for all other countries were always positive.¹⁰⁶

As for credit indicators, Banerjee *et al.* (2015) found no impact on the total amount borrowed over the past 12 months, but this result hides a movement away from informal borrowing towards formal borrowing that is only observed by endline 2. Whereas the total amount borrowed from formal sources increased by PPP US\$22.7, the total amount borrowed from informal sources fell by PPP US\$41.3. Disaggregated impacts by countries at endline 2 show increases in the total amount borrowed in the last 12 months for Ethiopia (PPP US\$61.3), India/Bandhan (PPP US\$111) and Ghana (PPP US\$13.1) and decreases for Pakistan, a fall of PPP US\$193. No impacts were found for Peru or Honduras. As for amounts borrowed from formal and informal sources, the pattern is not as clear as for the pooled sample. There were positive impacts on borrowing from informal sources for Ethiopia (PPP US\$24.9), coupled with an even larger increase in borrowing from formal sources (PPP

¹⁰⁴ Banerjee *et al.* (2015) express monetary indicators in international US dollars, i.e. dollars evaluated at the purchasing power parity (PPP). Using the PPP rate for currency conversions, a given amount of one currency has the same purchasing power whether used directly to buy a market basket of goods or used to convert at the PPP rate to another currency and then purchase the same market basket using that currency. PPP exchange rates help to minimize misleading international comparisons that can arise with the use of market exchange rates.

¹⁰⁵ No indicator for total savings was available for India (Bandhan) and Pakistan.

¹⁰⁶ There is no indicator for the amount deposited in savings in the previous month for Ghana.

US\$36.2). In Pakistan, there was a reduction in informal borrowing of PPP US\$203, but with no impact on formal borrowing (total borrowing was reduced as seen above). In India, there was an increase in formal borrowing (PPP US\$90.4) and no impact on informal borrowing (although the point estimate is positive). No impacts on either formal or informal borrowing were found to have occurred in Honduras and Peru.¹⁰⁷

The authors looked at possible spillover effects of the intervention on eligible non-beneficiaries living in the same village, using a financial inclusion index based on formal borrowing, informal borrowing, total amount deposited into savings, and total savings balance, and find no evidence of spillovers. This analysis, however, was only possible for the pooled data from Ghana, Honduras and Peru since two types of randomized control groups (from the same village and from control villages) were only available for these three pilots. Using the same index to gauge the overall impact of the interventions on financial inclusion, the positive impact was not statistically significant for Peru and Pakistan.

Finally, Banerjee *et al.* (2015) reported on the quantile treatment effects for the financial inclusion index and found that the positive impacts were driven by the top quantiles (median and above). Thus it seems that the poorest people covered involved in these programmes still struggle to gain access to credit and savings, suggesting that there is an income/resource threshold that has not been reached to enable overcoming that barrier.

Bauchet, Morduch and Ravi (2015), in their analysis of the SKS/UPP pilot of the Graduation into Sustainable Livelihoods project, failed to find any impact on indicators such as the proportion of households with savings and total savings balance. It is important to note, however, that the proportion of households with savings and the balance of their savings increased between baseline and endline in both treated and control groups. While 65 percent of the treated group reported having savings at the endline, up from 59 percent, the figure for the control group was 60 percent, up from 51 percent. Similarly, the per capita savings balance of the control group almost tripled, while the treated group slightly doubled their baseline value. The authors comment that positive impacts, not reported in the paper, were found immediately after the end of the intervention, which had mandatory savings as one of its components. Moreover, they note that a qualitative study showed that 36 months after the end of the intervention “*almost all participants had withdrawn their savings and closed the post office account that had been opened for them during the programme*”. Such behaviour may be due to a preference to keep cash savings at home or to use savings to repay outstanding debts.

Bauchet, Morduch and Ravi (2015) also show that the intervention did not have an impact on access to credit, based on indicators of the likelihood of having outstanding loans, the number of outstanding loans and the total amount of loans outstanding. Thus the drop in debt, which was reported as one of the causes for a lack of impact on savings, does not seem to be enough to drive any differential trend between treated and control groups as per their total amount of loans outstanding. Further results related to the sources of loans suggest a small but statistically significant increase in the use of loans from shopkeepers by treatment households, but no other statistically significant difference between the two groups was

¹⁰⁷ There is no disaggregated indicator for formal and informal borrowing in the case of Ghana.

found, not in loans from microfinance institutions or self-help groups, which was a long-term objective of the graduation strategy.

Blattman *et al.* (2014) found that participation in savings groups increased, as did the amount of savings, loans and perceived access to credit as a result of the SLP WINGS programme in Uganda. These results were observed for female and male beneficiaries. Phase 2 of the programme focused on the impact of family coaching visits. Total savings were 19 percent higher among those receiving two follow-up visits and an additional 22 percent higher among those with five follow-up visits. Additional visits did not have an impact on debt or on the number of beneficiaries participating in savings groups, but being involved in a savings group seemed to have a positive impact on both indicators. Higher number of visits also appeared to contribute positively to perceived access to credit.

Prennushi and Gupta (2014) analyse the impacts of the IKP using three income categories: very poor, poor and non-poor. They further classify beneficiaries by their entry cohort into the programme, namely, early cohort which proxies the long-term effects and mid- and late cohorts that proxy the medium- and short-term effects, respectively. They found that the intervention had a positive and statistically significant impact on the savings of beneficiary women from the “very poor” category who belonged to the mid- and late- entry cohorts, 217 percent and 1,231 percent, respectively. However, impacts for the early cohort were small and not statistically significant, suggesting no long-term impacts for the very poor beneficiary women. In contrast, for the poor beneficiaries category, a positive and statistically significant impact was only found for women from the early cohorts, and hence who were in the programme for a longer period (Rs 3,590 or 62 percent). No impacts were reported for non-poor beneficiaries. As for credit-related indicators, beneficiary women borrowed 2.5 times more than non-beneficiaries. The authors found larger impacts for the very poor beneficiaries who were in the programme for a longer time (early cohort) than for other income and entry groups. These results were expected as the IKP has savings promotion as one of the key activities of the self-help groups in India in which the intervention is based.

Gilligan, Hoddinott and Tafesse (2009) looked at the impact of PSNP both alone and together with OFSP on credit use and self-reported difficulties in repaying debt in Ethiopia. They found that PSNP on its own had a positive impact on credit use (7pp), but that this impact was mostly due to payment delays, which led beneficiaries to borrow against future payments, showing that reasonable predictable social transfers may facilitate access to credit for consumption. In addition, they also found a positive impact (12.3pp) on credit use for beneficiaries of the combined PSNP and OFSP. Such a result is not surprising as production credit is one of the components of the OFSP, and 40 percent of households in the sample reported benefiting from both PSNP and OFSP.

Escobal and Ponce’s (2016b) evaluation of the combined *Juntos* and *Haku Wiñay*, which has a strong component of financial literacy, found a positive impact on the knowledge that beneficiaries had of the financial system as well as an improvement in beneficiaries’ level of confidence on the financial system. The level of confidence, however, was still very 1.6 on a 10-point scale and the impact of the intervention was of 0.6.

Moya (2016) reported that *Oportunidades Rurales* did not improve the access of beneficiaries to financial assets. Microinsurance, which is one of the components of the programme (offered to family farmers with a subsidy), had only a short-term impact and after the end of the intervention farmers did not renew their policies. Nor was there any effect on access to formal financial services, which is explained by the low take-up rate of this component among beneficiaries largely due to the usual barriers faced by family farmers to access formal credit. In addition, the authors found a negative impact on access to informal financial services. Access increased during the programme while beneficiaries were closer to farmers' organizations. However when the programme ended, the access dropped. The limited impact on access to markets, which should have been facilitated by the farmers' organizations, corroborates this finding. Most family farmers (75 percent) take their produce to the market as independent producers rather than as members of farmers' organizations or cooperatives. Overall, the impacts of the programme did not endure beyond its implementation phase. As for synergies between *Oportunidades Rurales* and *Familias en Acción*, the results reported by Moya (2016) suggest that, if anything, the impacts were even more negative for smallholders from *Oportunidades Rurales* who were also *Familias en Acción* beneficiaries with regard to access to microinsurance (early cohort) and formal credit (late cohort).

De Sanfeliú *et al.* (2016) reported some interesting results arising from the combination of the CSR CCT programme and SAN (food and nutritional security) projects on financial inclusion indicators. For example, the proportion of households with access to formal credit is between 13pp to 15pp higher among households that benefited from both programmes as compared to those that just benefited from SAN projects. The authors also found that former CCT beneficiaries who joined a SAN project were more likely to have access to credit (6pp to 8pp)¹⁰⁸ than those who did not. Finally, SAN project beneficiaries who were former CCT beneficiaries were more likely to have access to formal credit (between 5pp to 8pp) than those who only had access to SAN projects. These results suggest that participating or having participated in a CCT programme makes it easier for SAN project beneficiaries to have access to formal credit.

5.2.2 Diversifying economic activities and sources of income

Overall, the evaluations of the combined programmes show some diversification of economic activities in agriculture (including homestead gardens and livestock raising), but also a shift away from agriculture towards non-farm businesses. In many of the SLPs, programme beneficiaries used part of the livestock revenue to foster high-return crop production (FSUP). The diversification into non-farm businesses was more common in programmes with a clear objective to enable vulnerable households to have a non-farm source of income, such as in Nicaragua (CCT+ investment grant) and Uganda (WINGS). This type of impact was also found in the combination of PSNP and OFSP in Ethiopia (as well as for the PSNP only), and in the ER+ in Bangladesh. In the case of some CPs and OPs, economic diversification was part of the agricultural programme, usually as extension services and implied the introduction of new crops. In the case of Haku Wināy

¹⁰⁸ For the indicator of formal credit or formal current account, the point estimates vary between 8pp and 11pp.

in Peru, a typical CP, there has been not only diversification on crops (new fruits and vegetables), but also increases in both agricultural income and non-agricultural income and a fall in wage income (led by rural wage). Thus, as in the case of rural SLPs, rural CPs may lead to a change in the sources of income of households favouring self-employment sources.

Some of the outcomes reported on the role of combined programmes in supporting investment and productive asset accumulation also relate to their role in strengthening risk management. The evaluation of the FSUP in Bangladesh revealed that some beneficiaries had diversified away from assets handed to them – mostly bulls – into high-return crops (BDI, 2012). Hernandez *et al.* (2015) suggest that farmers in the ER+ programme were using the revenue from livestock production to improve their rice productivity, indicating a diversification of sources of income that could protect the beneficiaries against shocks. However, the authors also reported that there were no impacts on non-rice cultivated areas nor on the total production of non-rice products, implying a lack of diversification within crop production. De Sanfeliú *et al.* (2016) found that the SAN projects in El Salvador combined with CSR led to the introduction of new crops and new livestock, indicating some diversification, but did not find any impact on agricultural income. Aldana, Vásquez and Yancari (2016) showed that *Juntos* beneficiaries who also participated in *Sierra Sur* interventions in Peru adopted new production practices, but neither intervention seemed to have led to higher production levels as reported in the Bangladesh case.

Diversification into non-agricultural businesses could be another strategy to improve risk-management by rural farmers. In their evaluation of the ER+ in Bangladesh, Hernandez *et al.* (2015) found a positive impact on participation in non-farm business. From a baseline of 20 percent participation in non-farm enterprises for the pooled sample of control and treated groups, there was an increase to 33 percent for ER+ and to 30 percent for the ER-only group at the endline. Both population average and fixed effect models show that the ER+ led to higher participation in non-agricultural activities than did the two control groups used in the analysis. This finding is in line with the impact of ER+ on the decision to save and use the savings for entrepreneurial purposes as discussed above. The authors argue that these results are encouraging because they show that even if ER+ beneficiaries do not move out of poverty, they are at least better able to manage risks. The results held true for the two comparison groups used in the analysis, which implies that beneficiaries who received only public works for two years (ER) did not experience the same positive impacts. The authors, however, did not report the results of ER-only against a comparison group of non-beneficiaries to assess whether it had some positive impact on these outcomes related to risk management. Gilligan, Hoddinott and Tafesse (2009) also found that beneficiaries that participated in both PSNP and OFSP in Ethiopia were more likely to operate non-farm business activities than were non-beneficiaries. However, they found a similar impact for those who benefited from PNSP only, unlike in the case of ER.

In Nicaragua, Macours, Premand and Vakis (2012) showed that both of the CCT complementary programmes, namely the provision of productive investment grants and

training vouchers,¹⁰⁹ helped to protect CCT beneficiaries against drought shocks, although the investment grant seemed to have been more effective. Moreover, the productive investment grant led to significant increases in non-agricultural self-employment, mostly the production of food products and small commerce, which were larger than those yielded by the training voucher and by the basic CCT package (transfers only). Overall, CCT beneficiaries who also received a productive investment grant were 13pp more likely to engage in non-agricultural self-employment than the comparison group (no intervention), while the training group and the cash only group were just 4pp more likely. These results suggest that both complementary interventions and even the cash only intervention helped households to move to more diverse sources of income, but that the investment grant produced more robust impacts.

Escobal and Ponce (2016b) revealed that *Haku Wināy* led to a statistically significant increase in household income from on-farm activities - 18 percent over baseline values - and from self-employment non-farm business - 35 percent over baseline levels, and to a decrease in the household income from rural wage labour – a reduction of 25 percent over baseline levels.

In Uganda, the Women’s Income Generating Support (WINGS) project also used investment grants along with business training and planning and regular support visits to stimulate young rural women in a post-conflict region to diversify their sources of income away from agriculture. Blattman *et al.* (2014) showed that the proportion of beneficiaries with non-farm businesses doubled from 39 percent to 80 percent due to the intervention. The authors were able to attribute most of the impact to the combination of cash and training; the regular visits had very low or marginal impacts. However, their evaluation design was not able to disentangle the individual contribution of “cash only” and “training only” as in most of the SLP evaluations.

Some evaluations did not explicitly assess the diversification of economic activities and sources of income. However, by looking at the impacts of the combined programmes on different incomes, it is possible to have an idea of whether and how the programmes had such an effect.

Bandiera *et al.* (2013) found a 8.2 percent reduction in the share of activities with seasonal earnings four years after the end of the programme (CFPR Phase 2), with a parallel increase of 17.5pp in the share of activities with regular earnings. This is consistent with the fact that the asset transferred to the beneficiary women allowed them to have a regular source of income through self-employment rather than relying on seasonal wage opportunities. Moreover, there was a 15 percent increase over their baseline level in earnings per hour (productivity) over the same period.

Banerjee *et al.* (2015) showed that there was a sustainable increase in monthly livestock household revenue as well as in monthly agricultural income for the pooled sample of the

¹⁰⁹ For more details on the CCT programme *Atención a crisis* in Nicaragua, see discussion in Section 4 or Table A.2 in the Appendix.

six pilots of the Graduation into Sustainable Livelihoods programmes.¹¹⁰ However, authors did not observe any impact for monthly non-farm microenterprise household income and monthly paid labour income. Bauchet, Morduch and Ravi (2015) also showed that the major impact of the SKS/UPP in India was to increase the livestock income of the treated group as compared to the control group. However, their results suggest that the gains in livestock income were accompanied by a fall in agriculture labour income. This rebalance between the two sources of income rendered the impact on total income null, a result that is at odds with the ones reported in Banerjee *et al.* (2015) for other pilots.

In Vietnam, IRC (2012) showed a positive impact of 18.5 percent on agriculture income for ethnic minority groups – the main target of the programme - as a result of the P135 Phase 2 programme. Non-minority groups did not attain similar impacts even though they lived in similar areas as the beneficiary groups. The programme did not bring about any change on income from wages and salaries, which suggests that the increase in agricultural income (mostly self-employed) did not come at the expense of other sources of income.

5.2.3 Negative coping strategies

There is not much evidence of the impacts of social and agricultural programmes on child work, particularly for SLPs. The impact of OPs and CPs on child labour seems to be mixed. Whereas Bolsa Familia in Brazil was associated with a decrease in the engagement of children in labour activities, rural credit appeared to go into the opposite direction. However, the interaction between them tended to reduce child work. In Lesotho, the combination of an unconditional cash transfer (CGP) with homestead gardening support led to an increase in child labour, particularly for girls. The scarce evidence available for Bangladesh CFPR showed no impact on child labour, a result similar to what was found for the combination of a CCT programme with a rural intervention in Colombia. These results suggest that contextual factors need to be assessed so as to avoid productive support to families leading to increases in child labour. As for begging and other undesirable forms of occupation, the evaluation of the CFPR Phase 1 in Bangladesh found reductions in their prevalence, but with attenuated effects in the long term. Asset depletion seems to be successfully avoided in SLPs, most likely due to the consumption support component, although no evaluation has yet disentangled this effect.

With regard to negative coping strategies, most impact studies looked at the *engagement of children in labour activities*, begging and distress asset sales. Emran, Robano and Smith (2014) found no short-term impact of the CFPR on child labour in Bangladesh. Since the presence of child labour is a criterion for inclusion in the programme, it is clear that the programme considered it a clear indicator of a family's vulnerability status. Garcia, Helfand and Souza (2016) found that *Bolsa Familia* in Brazil (1996-2006) was associated with lower incidence of child work, whereas extending rural credit to family farmers was not associated with child labour in Brazil's municipalities, despite the positive coefficient. The interaction term was also positive, although not statistically significant. The authors estimated that an expansion of the coverage of *Bolsa Familia* by 10pp would reduce child labour by 7.4

¹¹⁰ An index of income and revenue using all four sources of income/revenue shows an overall positive impact on income and revenue in each country.

percent (about 32 children per 1000 farms). Moya (2016) found no synergistic effect of Colombia's *Oportunidades Rurales* and *Familias en Acción* on hours worked or time spent on domestic chores by children aged 12-18 years old. Dewbre *et al.* (2015) found major impacts on child work, particularly among girls 14 years that seem to have been driven by the joint implementation of the LFSSP and the CGP in Lesotho. Younger girls in beneficiary households were 26pp more likely to spend some time on farm work as well as to increase the number of days worked (0.10) in non-farm enterprises. Furthermore, both younger girls and older boys increased the time they spent on non-farm enterprises in terms of hours worked (0.14 overall) and days worked (0.10 by girls) during the week prior to the survey. The authors suggest that part of the impact on child labour in home farming activities may be due to the increased homestead gardening activities (and the LFSSP), while the increase in child labour in agricultural and non-farm enterprise activities are probably due to the additional year of CGP benefits.

Begging was seen by CFPR programmes as a strong indicator of extreme poverty and vulnerability. Das and Misha (2010) and Misha *et al.* (2014) looked at the impacts of CFPR Phase 1 on begging. Das and Misha (2010) showed that begging was the main occupation of 3.5 percent of the CFPR beneficiary women in 2002; it decreased to 1.4 percent in 2008, which was the level of the control group at the baseline. These changes represented around a 1.5pp change over the short and medium term (2002-2005 and 2002-2008). Misha *et al.* (2014) analysed "begging and working as a maid" as a single category and showed that after an initial move towards entrepreneurship and paid labour, most CFPR Phase 1¹¹¹ beneficiaries eventually returned to their initial occupations.

Most of the evidence presented in the last section of this report showed that beneficiaries made some minor downward adjustments in the level of assets owned in the context of SLPs. However, these small decreases in the total value or total number of assets (e.g. number of livestock) were not due to the need to cope with negative shocks. Only Bauchet, Morduch and Ravi (2015) found distress sales as a major explanation for the reduction of livestock assets in the Indian SKS/UPP programme and the lack of net impacts on income or consumption indicators. In any case, the most important contextual factor seemed to be the high levels of debt of the treatment group at the baseline. Most households appeared to have sold their assets to pay these debts. Moreover, as the labour market was tight during programme implementation, there were attractive opportunities for the beneficiaries that made the entrepreneurship alternative less attractive than a lump sum (asset sale) to pay debts.

¹¹¹ Raza and Ara (2012) in their evaluation of CFPR Phase 2 merge beggars, maids, students and the unemployed into a single category, which makes it impossible to understand the impact on the so-called 'dead-end' occupations, begging and working as maid.

Table 8 Impacts on risk management indicators

Indicator	Impact	Country	Combined programme (category)
Access to credit and savings	<p>Positive: cash savings – impacts higher in the shorter term than medium to longer term due to control group catching up – Ahmed <i>et al.</i> (2009); Emran, Robano and Smith (2014); Krishna, Poghosyan and Das (2010); Das and Misha (2010); Misha <i>et al.</i> (2014)</p> <p>Positive: formal loans (both prevalence and value) – larger impacts in the short term – Raza, Das and Misha (2012); Misha <i>et al.</i> (2014)</p> <p>Negative: informal loans (both prevalence and value) – larger impacts in the short term – Raza, Das and Misha (2012); Misha <i>et al.</i> (2014)</p>	Bangladesh	CFPR (Phase 1) – (SLP)
	<p>Positive: total savings – Raza and Ara (2012) and Bandiera <i>et al.</i> (2013); also access to loans and loan-giving – Bandiera <i>et al.</i> (2016)</p>	Bangladesh	CFPR (Phase 2) – (SLP)
	<p>Positive: total savings (both prevalence and value) - No information on loans and access to credit – Hernandez <i>et al.</i> (2015)</p>	Bangladesh	ER+ (SLP/CP)
	<p>Positive: total savings (both prevalence and value) Negative: proportion receiving loans, but positive on value of the loans – BDI (2012)</p>	Bangladesh	FSUP (SLP)
	<p>Positive impacts on total savings and on the total amount deposited in savings in the previous month – larger impacts on endline 1 than on endline 2 for aggregated results. Individual countries - Honduras: no impact on total savings. Stronger results for Ethiopia for most available savings indicators – Banerjee <i>et al.</i> (2015) No impacts on total amount borrowed – formal borrowing has replaced informal borrowing (aggregated results). Positive impacts on total amount borrowed (Ethiopia, India and Ghana), Negative for Pakistan and No impact for Peru and Honduras. Positive impacts on financial inclusion index was found only for the top quantiles (median and above) – Banerjee <i>et al.</i> (2015)</p>	Ethiopia, India, Pakistan, Ghana, Peru and Honduras	Graduation into Sustainable Livelihoods (SLP)
	<p>No impacts – on savings (either prevalence or value) and access to credit based on indicators of the likelihood of having outstanding loans, the number of outstanding loans and the total amount of loans outstanding – Bauchet, Morduch and Ravi (2015)</p>	India (Andhra Pradesh)	Graduation into Sustainable Livelihoods – SKS (SLP)
	<p>Positive: participation in savings groups, amount of savings, amount of loans and perceived access to credit – Blattman <i>et al.</i> (2014)</p>	Uganda	WINGS (SLP)
	<p>Positive: savings amount for the poor women, particularly those with longer exposure to the programme and for the very poorest with short and mid- exposure to the programme. More use of credit by beneficiaries especially the poorest ones – Prenushi and Gupta (2014).</p>	India	IKP (CP)

	<p>Positive: credit use but self-reported difficulties to pay off debts – Gilligan, Hoddinott and Tafesse (2009)</p> <p>Positive: knowledge and confidence in the financial system – Escobal and Ponce (2016b)</p> <p>No Effect: actual use of savings accounts or financial services. – Escobal and Ponce (2016b)</p> <p>Negative: access to microinsurance and formal credit – Moya (2016)</p> <p>Positive: access to formal credit due to the interaction between CCT and SAN – De Sanfeliú, Angel and Shi (2015).</p>	<p>Ethiopia</p> <p>Peru</p> <p>Colombia</p> <p>El Salvador</p>	<p>PSNP/OFSP (CP)</p> <p><i>Juntos</i> and Haku Wiñay (CP)</p> <p><i>Más Familias en Acción</i> and OR (CP)</p> <p>CSR and rural development (OP)</p>
Diversifying economic activities and sources of income	<p>Positive: decrease in seasonal earnings and increase in regular earnings – Bandiera <i>et al.</i> (2013)</p> <p>Positive: diversifying from bull raising to high-return crops – BDI (2012)</p> <p>Positive: diversifying from livestock into rice production and into non-farm business, but not into other crops – Hernandez <i>et al.</i> (2015).</p> <p>Positive: probability of operating a non-farm business activity – Gilligan, Hoddinott and Tafesse (2009)</p> <p>Positive: diversifying into new crops and adoption of new technologies – De Sanfeliú <i>et al.</i> (2016) and Aldana, Vásquez and Yancari (2016)</p> <p>Positive: increasing income from on-farm and off-farm self-employment and reducing income from wage labour – Escobal and Ponce (2016b)</p> <p>Positive: non-agriculture self-employment (larger diversification effects for those who received CCT and investment grant) – Macours, Premand and Vakis (2012)</p> <p>Positive: proportion of beneficiaries with non-farm businesses (due to investment grant and training – no extra impact from coaching/visits) – Blattman <i>et al.</i> (2014).</p> <p>Positive: increase in income from livestock revenue and agricultural income, but no increase in non-farm enterprise income or paid labour income (aggregate results) – Banerjee <i>et al.</i> (2015)</p> <p>No impact: gains in livestock income compensated for fall in agriculture income – Bauchet, Morduch and Ravi (2015)</p>	<p>Bangladesh</p> <p>Bangladesh</p> <p>Bangladesh</p> <p>Ethiopia</p> <p>El Salvador, Peru</p> <p>Peru</p> <p>Nicaragua</p> <p>Uganda</p> <p>6 countries: Ethiopia, India, Pakistan, Ghana, Peru and Honduras</p> <p>India (Andhra Pradesh)</p>	<p>CFPR Phase 2 (SLP)</p> <p>FSUP (SLP)</p> <p>ER+ (SLP/CP)</p> <p>PSNP and OFSP (CP)</p> <p>CSR and rural development (OP), <i>Juntos</i> + Sierra Sur (OP)</p> <p><i>Juntos</i> and Haku Wiñay (CP)</p> <p><i>Atención a Crisis</i> and investment grant (CP)</p> <p>WINGS (SLP)</p> <p>Graduation into Sustainable Livelihoods (SLP)</p> <p>Graduation into Sustainable Livelihoods – SKS (SLP)</p>

	Positive: increase in agricultural income (self-employed) for ethnic minorities and no impact on other sources of income – IRC (2012)	Vietnam	P-135 II (CP)
Negative coping Strategies	No impact – prevalence of child labour – Emran, Robano and Smith (2014) Positive – reduction in begging – Das and Misha (2010), but long-term impact not sustained – Misha <i>et al.</i> (2014)	Bangladesh	CFPR Phase I (SLP)
	Positive – reduction in the prevalence of child labour – interaction reduces child labour but it is not statistically significant. Social protection decreases, but rural credit increases – Garcia, Helfand and Souza (2016)	Brazil	<i>Bolsa Familia</i> and PRONAF (rural credit) (OP)
	No impact – hours worked or time spent on domestic chores - Moya (2016)	Colombia	<i>Más Familias en Acción</i> and OR (CP)
	Negative – prevalence of child labour, particularly for girls under 14 - Dewbre <i>et al.</i> (2015)	Lesotho	CGP and LFSSP (CP)

Source: authors' own elaboration.

5.3 Shifts in labour allocation

Social cash transfers are feared to have negative effects on labour supply, both at the extensive (labour force participation) and intensive margins (hours of work/days of work). Under such circumstances, members of beneficiary households might either withdraw from the labour force or reduce the days and/or hours when they work. However, cash injections for credit-constrained rural households with access to land may allow poor farmers both to dedicate more time to their own farming activities and to reduce the time dedicated to daily casual labour on better-off farms – often considered an inferior/last resort form of labour – or to off-farm activities. Likewise, even in a context where cash transfers may have a negative effect on the wage-labour supply, the joint implementation of an agricultural intervention may compensate for that unintended negative effect by allowing beneficiaries to spend more time on their own farming business. In this section of the report, we review the evidence of how beneficiaries of combined programmes have reallocated their labour supply as a response to the programme's incentives. Table 9 summarizes the main findings.

SLP impact evaluations that look at programme impacts on labour force allocation show increases in the proportion of farm self-employment, particularly among women, who are the main beneficiaries of the asset transfers. In some cases, increases are also observed in both farm and non-farm self-employment among men. Most of this increase in farm self-employment comes at the expense of time spent on wage labour, but the overall balance does not suggest a reduction in work intensity, but a reallocation in line with programme objectives. This is also observed among interventions that aim to enable rural households to diversify their incomes by engaging in non-farm activities, such as in Uganda (WINGS) and Nicaragua (CCT plus investment grant). However, even in these cases impact evaluations found some increases in farm self-employment as well, although to a much lesser degree. Further, evaluations of CPs such as PSNP plus OFSP in Ethiopia

and the combination of the LFSSPP with the CGP in Lesotho found similar impacts. Thus, the results suggest that combined agricultural and social protection programmes do not generate dependency but instead, tend to stimulate labour force participation among beneficiaries.

Das and Misha (2010) found that the CFPR Phase 1 led to an increase of 2pp (2002-2005 and 2002-2008) in farm self-employment and of 6.5pp (2002-2005) and 8.8pp (2002-2008) in non-farm self-employment among working-age men (15-60 years old) in beneficiary households. This move towards self-employment was accompanied by a fall of 7pp (2002-2005) and 9.1pp (2002-2008) in day labour and of 3pp in unemployment (during both periods). Nevertheless, 55 percent of men from beneficiary households have day labour as their main occupation. As expected, the increase in farm self-employment was much stronger for working women than for men, increasing by 36pp (2002-2005) and 26 pp (2002-2008),¹¹² whereas non-farm self-employment increased by a modest 3pp (2002-2005) and had disappeared by 2008. At baseline, 49 percent of beneficiary women reported household chores as their main occupation. This share fell sharply to 21 percent by 2005, but increased again to 31 percent by 2008. The fall of 16.2pp in the proportion of beneficiary women with household chores as their main occupation – observed in the short term (2002-2005) – was reversed in the medium term (2008). Thus the adjustment to compensate for the increase in farm self-employment was borne by day labour, which fell by 14.6pp (2002-2008), and by working as housemaid, which fell by 7.4pp (2002-2008). In both cases there was a reduction of more than 50 percent over baseline levels.

Misha *et al.* (2014) used the same household panel to assess the longer-term effects of CFPR Phase 1 after the third round of surveys (2011). They estimated an increase of 16pp in the probability of being self-employed in either the agricultural or non-agricultural sector for the working-age population (both men and women) in the medium term: 9pp by 2005 and an additional 7pp by 2008. However, this effect was significantly reduced by 12pp by 2011, rendering the long-term effect rather limited (4pp). The authors also confirmed a reduction of 16pp in the probability that households would undertake very low skill occupations, such as day labour, working as maids or begging as their main source of income, until 2008 (8 pp by 2005 and an additional 7pp by 2008). However, CFPR Phase I evaluators observed an attenuation of these effects by 2011. Since there has been no change in the control group over time, these effects are entirely due to changes in the treated group.

The evaluation results revealed that female-headed households moved away from begging or working as a maid towards entrepreneurship (14pp increase) by 2005. In addition there was also 9pp increase in the probability of entrepreneurial activities between 2005 and 2008, a change largely driven by a move away from day labour. However, between 2008 and 2011, the probability of entrepreneurship dropped again by 13pp, while the probability of working as maids or begging increased by 6pp, indicating that some members of female-headed households reverted back to their original occupation in the longer term. Male-headed households participating in CFPR Phase 1 were also initially more likely to move to

¹¹² From a negligible 0.2 percent in 2002, farm self-employment was responsible for 44 percent and 37 percent of beneficiary women's occupations in 2005 and 2008, respectively.

entrepreneurial activities (away from day labour), but the effects were smaller than for female-headed households, which could explain the smaller short-term income effects on this group. Similarly, to female-headed households, the trend of increased entrepreneurial activities was sustained in 2008, but reversed thereafter. By 2011, most households that started a business had moved back to day labouring or even begging or working as maids. The authors suggest that intergenerational transfers due to marriage of the beneficiary offspring and/or the loss of household members that formerly assisted in sustaining the business (e.g. through marriage, death, migration) could explain why beneficiaries might lose control over their assets and revert to their original occupation. Based on these results, the authors raised the question of whether one big push could be sufficient to alleviate ultra-poverty across the board or whether more frequent support sustained over a longer time period might have a more long-lasting impact and attenuate the effect of intergenerational transfers.

As for CFPR Phase 2, Raza and Ara (2012) assessed the impact of CFPR Phase 2 on employment at the intensive margin. Among working-age women, they found an increase in the time spent on agricultural activities of 391 hours per year (a 104 percent increase over the control group's baseline level) and a decrease in hours spent as on day labour of 100 hours. Similarly, the hours per year spent as housemaids also fell by 91 hours. The authors did not find any change in the hours spent on household chores and other activities. Among working-age men, they only found an increase of 15 hours per year spent on household chores and a drop of 47 hours for other activities. Thus, as opposed to CFPR Phase 1 evaluation results discussed above, male occupation does not seem to have been affected by Phase 2. Bandiera *et al.* (2013) found a reduction in the share of women specialized in wage employment (extensive margin) by 17 pp (65 percent of the baseline mean) after four years of the programme. Over the same period, the share of women specialized in self-employment increased by 15 pp and those engaged in both types of occupation increased by 8pp. These changes in the extensive margin of occupational choice correspond to 50 percent and 31 percent increase from their baseline values, respectively. After four years, eligible women work 170 fewer hours per year in wage employment (a 26 percent reduction relative to the baseline)¹¹³ and 388 more hours in self-employment (a 92 percent increase relative to the baseline).¹¹⁴ Hence, total annual labour supply increased by an additional 218 hours, which represents an increment of 19 percent relative to the baseline. With respect to the occupational choices of other household members, there were small increases in the number of hours devoted to self-employment (presumably spent helping out the main beneficiary) but no effect on wage employment, indicating that the programme did not reduce the wage employment of other household members.

¹¹³ Bandiera *et al.* (2016) showed that this impact after four years was particularly led by a reduction of 117 hours working as maids (domestic servants) – a fall of 36 percent relative to the baseline. There was also a reduction in annual working hours for agricultural labour (minus 46 hours per year), but this was not statistically significant. According to the authors, the higher wages in agricultural work compared to domestic servants' earnings may explain this difference.

¹¹⁴ Bandiera *et al.* (2016) showed that livestock rearing utterly drove this increase: 415 more hours per year, an increase of 125 percent relative to the baseline.

Banerjee *et al.* (2015) found that for the pooled sample of the six pilots of the CGAP/Ford Foundation graduation project, adult labour supply increased by 17.5 minutes per adult per day at endline 1 (representing a 10.4 percent increase over control households) and by 11.2 minutes at endline 2 (a 6.1 percent increase over control households). Livestock and agricultural activities mostly drove the increase in working time, consistent with the assets supplied by the interventions in most countries. Country-level estimates confirmed the lack of negative impacts on adult labour supply even though the positive impacts were much more nuanced in this case, particularly for endline 2. For instance, consistent with the results for the asset index, only the Ethiopian and Indian (West Bengal) pilots showed a positive impact on time spent on productive activities, mostly tending livestock.¹¹⁵ However, there was no such impact in any of the other four pilots at endline 2.¹¹⁶ It is worth noting that ‘time spent working’¹¹⁷ also includes time spent on paid work, which, as seen in other evaluations discussed here, tends to decrease somewhat with the increase in time spent on agricultural self-employment activities. Its inclusion on the catch-all variable time spent working may explain the lack of results for the other pilots.

In studying another pilot of the CGAP/Ford Foundation Sustainable Livelihoods project, the SKS UPP, Bauchet, Morduch and Ravi (2015) found no impact on ‘productive time’, as the increase in time spent tending livestock of 18 minutes per day was compensated by a reduction of 42 minutes per day spent on agricultural labour. Whereas the former seems to be a direct effect of the programme on the treated group, the latter seems to be driven by the control group profiting from a higher demand for paid labour.

Blattman *et al.* (2014) found an increase in the proportion of men and women involved in any non-farm business in Uganda because of the WINGS programme. For women, the increase was 96 percent (39.1pp) and for men, 40 percent (41pp). The increase in reported positive hours in petty trade followed the same pattern, but was much stronger for male beneficiaries (276 percent) than for female beneficiaries (94 percent). The creation of new enterprises since the baseline was the major driver of results, with 47.3pp increase for women and 59.5pp for men. Working hours per week increased for agricultural and non-agricultural activities in both male and female samples. However, the increase in hours per week spent on non-agricultural activities was much greater. For female beneficiaries, there was an increase of 4.83 hours spent on non-agricultural activities as compared to 2.34 on agricultural activities. For male beneficiaries, the increase was 10 hours for agricultural and 9 hours for non-agricultural activities, but the baseline for the latter was much lower, revealing a much stronger impact on non-agricultural activities. Number of hours spent on household chores did not change because of the programme.

¹¹⁵ For Ethiopia, there was also an increase in minutes spent on agriculture on the day before the survey interview.

¹¹⁶ For endline 1, there were also positive impacts for Pakistan, Ghana and Honduras as well as Ethiopia and India.

¹¹⁷ Total time spent working, disaggregated by time spent on agriculture, livestock, business and paid work (Banerjee *et al.*, 2015).

Gilligan, Hoddinott and Tafesse (2009) found evidence that access to the public works component in the combined PSNP and OFSP reduced entry into the wage labour market and increased non-farm business activities. The effect was greater for beneficiaries who received larger amounts of transfers from public works, which is a proxy for the number of days they worked on them. Non-farm business activities increased by 6.5pp, while entry into the wage labour market fell by 11pp.¹¹⁸ The authors argue that these results suggest that the public works component of the PSNP crowded out employment in the private market, which put pressure on wages. A lack of information on the total number of hours worked by households in the sample prevented them from presenting clear conclusions. However, for the sample of beneficiaries with access to both PNSP and OFSP, there was no evidence of the crowding-out effect as the prevalence of non-farm activities did not come at the expense of wage employment. In any case, the authors did not look at the time spent on agricultural work to assess whether access to OFSP would have allowed beneficiaries to invest more time on their own farm and whether this could be a possible source of crowding out, as suggested in most of the social cash transfer evaluations.

In Lesotho, Dewbre *et al.* (2015) found a significant 15pp increase in the proportion of households allocating labour to crop farming, a result mostly driven by labour-constrained households. The authors suggested that there was a movement away from wage labour (10pp reduction) to on-farm activities. Based on an average baseline value of around 60 percent, this corresponds to a 25 percent increase in the indicator of having at least one member of a beneficiary household spending time on their farm. The authors also highlighted that this shift did not happen for the group that only received two years of CGP benefits. Additional resources provided by the CGP and LFSSP led to a 33pp increase in on-farm activities for the labour unconstrained and a reduction in temporary wage work. The authors consider this shift from occasional agricultural wage labour to working on one's own farm as welfare enhancing.

As discussed previously, Macours, Premand and Vakis (2012) found positive impacts of the CCT programme and the CCT programme combined with investment grants and training on non-agriculture self-employment. However, the authors also found that the combination of CCT and investment grants had a much larger impact (12.6pp) as compared to the combination of CCT and training or to CCT only, which yielded an impact of 4pp. The combination CCT and investment grants led to an increase of almost 11pp in services and 6.3pp in processing primary products; the combination CCT and training had impacts on services (3.4pp); and CCT only sample had impacts on services (3.25pp) and commerce (3pp). No impact was found on non-agriculture wage employment for any of the subjects of the evaluation.

Fernandez *et al.* (2016) found no impact on labour force participation, neither for the full sample nor for women, who are the main beneficiaries of the CCT programme in Chile. There was no impact on the interaction term for participation in both IEF and FOSIS productive support programmes.

¹¹⁸ For male beneficiaries receiving lower amounts of PSNP transfers, these estimates were 5.2pp and 3pp, respectively.

Moya (2016) reported that one of the few results in line with the expected outcomes of *Oportunidades Rurales* in Colombia was a small increase in the use of family workers, both at the intensive and extensive margins, with an increase in hours worked per day (0.42 hour) and in the number of family members working on the farm (0.28). Both impacts were observed for the cohort of farmers that entered the programme in 2008-2009. For the more recent cohort (2012-2013), there was an increase, at the extensive margin, of 0.41 family workers. However, the interaction term between *Oportunidades Rurales* and *Familias en Acción* was small and not statistically significant.

Table 9 Impacts on labour supply and occupation

Indicator	Impact	Country	Combined programmes (category)
Labour supply and occupation	Positive: increase in prevalence of on-farm self-employment, particularly for women, sizable effects in both short and medium term, but much smaller effects in the long term – Das and Misha (2010) and Misha <i>et al.</i> (2014)	Bangladesh	CFPR Phase 1 (SLP)
	Positive: increased hours in agricultural self-employment and fewer hours in day labour – Raza and Ara (2012). More women are self-employed (prevalence and hours). Results largely driven by livestock rearing. Total hours not reduced by beneficiary women nor other members – Bandiera <i>et al.</i> (2013, 2016)	Bangladesh	CFPR Phase 2 (SLP)
	Positive: increase in adult working hours due to livestock and agricultural activities. Results driven by Ethiopia and India. For other countries in the pilot there is no impact on total hours in endline 2	Ethiopia, India, Pakistan, Ghana, Peru and Honduras	Graduation into Sustainable Livelihoods (SLP)
	Positive: increase in on-farm work (tending animals) and decrease in day labour. But No impact on overall labour supply (extensive margin) – Bauchet, Morduch and Ravi (2015)	India (Andhra Pradesh)	Graduation into Sustainable Livelihoods – SKS (SLP)
	Positive: increase in working hours on agricultural and non-agricultural activities for both men and women – Blattman <i>et al.</i> (2014)	Uganda	WINGS (SLP)
	Positive: on nonfarm business activities and no reduction in wage employment – Gilligan, Hoddinott and Tafesse (2009)	Ethiopia	
	Positive: reallocation from wage labour to own farm activities – Dewbre <i>et al.</i> (2015)	Lesotho	PSNP and OFSP (CP) CGP and LFSSP (CP)
	Positive: impact on self-employment and no impact on wage employment – Macours, Premand and Vakis (2012)	Nicaragua	<i>Atención a Crisis</i> and investment grants (CP)
	No impact: on labour force participation – Fernandez <i>et al.</i> (2016)	Chile	
	No impact: hours worked per day and family members working on the farm – interaction positive but not significant - Moya (2016)	Colombia	IEF and FOSIS productive support <i>Más Familias en Acción</i> and OR (CP)

Source: authors' own elaboration.

5.4 Impact on consumption, expenditure, income, poverty and food security

In this section of the report, we review the evidence for the impact of combined agricultural and social protection interventions on income, expenditures, consumption, poverty and food security indicators. Table 10 summarizes the main results.

The impact evaluations show that combined agricultural and social protection interventions are likely to have a positive impact on income, total expenditure and total and per capita food expenditure. The latter seems linked to improvements in food security as reported in many of the impact evaluations discussed here. SLPs and CPs, mainly in Asia and in Africa, showed very positive impact in all these dimensions. In Latin America, the results were more mixed with some combinations failing to improve incomes (Sierra Sur and Juntos) and/or food security (Familias en Acción and Oportunidades Rurales), whereas others showed positive impacts on per capita income (Bolsa Familia and PRONAF) or total income (Juntos and Haku Wiñay) and for some food security indicators (CCT plus investment grants in Nicaragua, CCT plus rural development in El Salvador and Haku Wiñay in Peru).

Ahmed *et al.* (2009) found an increase of BDT 173 (49 percent of the control group's baseline level) and BDT 126 (36 percent of the control group's baseline level) in the per capita monthly food expenditure of the beneficiaries of the CFPR Phase 1, between 2004-2002 (short term) and 2006-2002 (medium term). These positive impacts on expenditures translated into an increase of 358 (20 percent of the control group's baseline level) and 403 (23 percent of the control group's baseline level) daily per capita caloric (kcal) consumption for these two periods, respectively. These results are in line with a net reduction of 33pp in the perceived food deficit situation of beneficiaries of the programme and suggest that the CFPR programme had both short- and medium-term impacts on food purchases, calorie intake and self-reported food security.

Emran, Robano and Smith (2014) found positive impacts on per capita income, food availability and the proportion of beneficiaries who had two meals per day between 2002 and 2005. Per capita income increased around 40 percent over the baseline level of the overall sample (comparison and control groups) for the selected ultra-poor (SUP) beneficiary group. For the poorest of the poor (SB1) beneficiary group, the impact was even higher at 50 percent of the baseline level. As for food availability, the food access score, which ranges from one to four increased by 43 percent for both treated groups. The proportion of households that could afford two meals per day during most of the previous year increased by 62 percent in both treatment groups over a baseline level of 0.60. These results suggest that the programme had strong impacts on extreme poverty reduction and food security.

Das and Misha (2010) and Raza, Das and Misha (2012) also found that participation in CFPR Phase 1 increased per capita income in both the short (2002-2005) and the medium term (2002-2009).¹¹⁹ Das and Misha (2010) estimated an impact of 35 percent in the short term

¹¹⁹ Raza, Das and Misha (2012) and Das and Misha (2010) used the same survey data, but the former used propensity score matching combined with difference-in-differences while the latter only used difference-in-differences to estimate the impacts of CFPR Phase 1.

and 65 percent in the medium term over the baseline level for the per capita income of the control group (NSUP). Raza, Das and Misha (2012) find smaller but still impressive impacts around 29 percent and 59 percent, respectively, over the short and medium term. Das and Misha (2010) estimated an increase in food expenditure of 38 percent over the control group's baseline level between 2002 and 2005, which flattened by 2008 (28 percent over the control group's baseline level). Similarly, Raza, Das and Misha (2012) found a 33 percent increase in food expenditures between 2002 and 2005, but according to their analysis, this impact persisted in the medium term (2008), an increase of 39 percent over the control group's baseline level. In line with these results, the authors also showed an increase in per capita calorie intake of 14 percent and 20 percent over the 2002 baseline level of the control group in the short and medium term, respectively.

Misha *et al.* (2014) found an increase of 33 percent in per capita income in the short term (by 2005), 60 percent in the medium term (by 2008) and 52 percent in the long term (by 2011) over the baseline level of the matched control group. They also showed that the probability of having two meals a day increased by 14 pp in 2005 (27 percent of the baseline level of the matched control group). By 2008, however, the effect was reduced by 6 pp (16 percent) and almost disappeared by 2011 (0.23pp or 5 percent of the baseline level of the matched control group) since close to 90 percent of households in both the treated and comparison groups were able to manage two meals a day by 2011. The authors attributed the lack of impact on this food security indicator to a catching-up by the comparison group. It is interesting to observe, however, that the improvements observed in the food security indicator for the control group cannot be fully attributed to similar increases in their per capita income.

With regard to the CFPR Phase 2 in Bangladesh, Raza and Ara (2012) found positive impacts on per capita income of 16 percent of the baseline level of the control group. They also indicated that the programme had a similar positive impact on per capita food expenditure. They claimed that although beneficiaries suffered the effects of the cyclone Sidr, the reduction in per capita food expenditure was actually higher for non-beneficiaries, so that programme participants fared significantly better than their counterparts did in 2009. However, impact estimates on food expenditure were not presented in the study and Figure 4 (p. 44) actually shows beneficiaries faring worse than the control group, contradicting what is written in the text.

Bandiera *et al.* (2013) found an increase in total annual earnings both two and four years after programme implementation. After two years, beneficiary earnings had increased by 34 percent relative to baseline levels and after four years, the impact was 38 percent.¹²⁰ This increase is largely due to higher earnings from livestock, but it also reached the ultra-poor who still resorted to casual labour in agriculture or as maids. There was an increase in

¹²⁰ Bandiera *et al.* (2013) also looked at the heterogeneity of the impact of CFPR Phase 2 on earnings and expenditures. The impact on earnings showed that four years after the implementation of the programme impacts were much larger at the top deciles of the earnings distribution. The positive impact on the first decile corresponds to one tenth of the impact observed for the 9th decile. Similarly, impacts on the per capita consumption at the 10th decile is ten times higher than for the first decile of the per capita consumption distribution. Actually, for the first two deciles the positive impact on per capita consumption was not statistically significant four years after the programme intervention.

earnings of 16 and 29 percent after four years, possibly driven by a fall in the number of people willing to take on this last resort type of occupation (Bandiera *et al.*, 2016). The authors also reported increases of 15 percent over baseline levels in productivity (earnings per hour) four years after the programme had finished. This happened in tandem with a positive impact on per capita food expenditures, namely, 17 and 48 percent over the baseline level two and four years after the end of the programme. These positive impacts on food security were further confirmed by an increase in the proportion of households able to afford two meals a day in most days. The point estimate increased by 18pp after two years, and 8pp after four years of programme implementation, corresponding to a 39 percent and 18 percent increase from the baseline, respectively. Bandiera *et al.* (2016) also showed a fall in the poverty headcount rate by 8.4pp (15 percent of the baseline level) after four years of intervention. This happened alongside an increase of 5 and 10 percent in the consumption expenditure per adult equivalent.¹²¹

Using the same data as Bandiera *et al.* (2013, 2016), Raza and Van de Poel (2016) showed that the weight-for-height z-scores for children under 5 years in communities participating in CFPR Phase 2 increased by 0.78 SD (a 60 percent increase over the baseline average), leading to a reduction of 8pp on wasting. Similarly, the proportion of underweight children decreased by 19pp due to an increase of 0.52 standard deviations (SD) (25 percent over the baseline value) in the weight-for-age score. Stunting or the height-for age score did not change because of the programme. A greater reduction in the number of underweight children was observed in female-headed households. No differential impact by sex of the children was identified. For individuals between 9 and 19 years, the body mass index (BMI) increased by 0.36 SD (27 percent over the baseline average) leading to a reduction of 11pp in the probability of being thin. Underweight prevalence decreased by 10pp. No impact was observed for stunting and impacts were larger in female-headed households. For the adult population above 19 years, the BMI increased by 0.57 SD and moderate thinness decreased by 11pp and severe thinness by 8pp. The authors found an increase in the duration of exclusive breastfeeding by 75 percent over baseline levels (more than 73 days) and a 26pp increase in the probability that a child receives a Vitamin A supplement. This suggested that the health component of the programme was directly responsible for improving the nutritional status of beneficiary households.

Smith *et al.* (2013) was the only other evaluation that looked at the impact of combined programmes on anthropometric measures. Indeed, assessing the impact of combined programmes on child malnutrition was the sole purpose of the evaluation of the SHOUHARDO project in Bangladesh. Children between the ages of six and 24 months from the project area experienced a reduction of 15.7pp in stunting between the baseline and follow-up surveys (2006-2009) as compared to a national trajectory that actually was very stable over this period. At baseline, stunting rates were higher than the national average, while at the follow-up survey they were lower. Further, a subsample of households from regions neighbouring the project area witnessed a reduction of 5pp in stunting. This suggests some degree of spillover effect, but was nowhere near the project area reduction. Smith *et*

¹²¹ However this result is only statistically significant at 11 percent of significance, above the standard values of 1, 5 and 10 percent.

al. (2013) also looked at synergies between the maternal child health nutrition (MCHN) component of the SHOUHARDO project and the other interventions concerned with sanitation, women's empowerment and poverty and food security (e.g. support to homestead gardens and income-generating activities and participation in public works). They found significant synergies in stunting reduction when MCHN was combined with poverty and food security interventions and smaller impacts of each programme in isolation. Complementary sanitation and women's empowerment interventions obtained similar results.

With regard to the Chars Livelihoods Programme Phase 1 in Bangladesh, HTSPE (2011) reported that the average income for earlier cohorts in the programme, ATP 3 and ATP 2, were respectively 19.1 and 35.8 percent higher than for the new cohort ATP 4.¹²² This result suggests that there were sustained improvements in income that can be attributed to CLP Phase 1. This process led to a fall in the (income) poverty headcount by 24.1pp for the ATP 2 cohort and 18.4pp for the ATP 3 cohort (using the ATP 4 cohort as the control group).

Similarly, participation in the ER+ programme in Bangladesh increased food expenditure, but point estimates were somewhat smaller than under the CFPR. Hernandez *et al.* (2015) found that ER+ participation increased per capita monthly food expenditure by BDT 50 (5 percent over the baseline level for the overall sample). Total per capita monthly food expenditure also increased with point estimates varying from BDT 55 to 70 – six percent over the baseline level for the overall sample (Hernandez *et al.*, 2015).

BDI (2012) reported that the Food Security for the Ultra-Poor (FSUP) programme led to a 1.5 increase in the number of income sources, which translated into an increase of about BDT 2 072 to the average monthly household income and of BDT 497 to the average per capita monthly household income. These increases correspond, respectively, to 114 and 103 percent over the baseline levels of the control group. Moreover, there was an increase of 15pp in the proportion of women earning income and an increase of BDT 1 054 in their average monthly earnings, which resulted in an increase of 9.3pp in their contribution to total household income. Poverty headcount was reduced as measured by a variety of poverty lines. For the dollar-a-day poverty line, there was a fall of 34.7pp (35 percent over the control group's baseline level), and for the lower national poverty line the reduction was 22.8pp (25 percent over the control group's baseline level). In addition, the proportion of households reaching at least the graduation threshold of the programme was 18.6pp higher for the treated group (an increase of 78 percent over the control group's baseline level).

As for food security indicators, the average number of full meals eaten by household members per day increased by 0.06 (a 20 percent increase over the baseline level of the control group at 2.5). The percentage of women consuming three full meals a day increased by 15pp (a 40 percent increase over the baseline level of the control group at 38 percent).

¹²² The estimated impacts on per capita income for the oldest cohort (ATP 1) was actually negative. However, CFPR Phase 2 at that stage was still going through adjustments, with a prevalence of cheaper asset transfers (goats instead of cattle) and a small coverage of 5.7 percent of the target population of 55 000 households (3 174). For these reasons, the authors preferred to focus on the results for cohorts ATP 2 and ATP 3.

The average food consumption score¹²³ increased by 12 points and the number of food types¹²⁴ consumed in the previous week increased by two (a 30 percent increase over the baseline level of the control group at 6.7). The per capita monthly expenditure on food increased by BDT 267 (a 52 percent over the control group's baseline level), but there was no change in the share of total expenditure since the increase in total expenditures was larger. The authors also found a 27pp decrease in the households having (at best) a borderline food consumption level alongside an increase in the group with an acceptably high food consumption level. Programme evaluators also documented an increased frequency of animal-based food intake and expenses on animal-based food (i.e., protein). Between 2010 and 2012, household expenditures on animal-based food increased by BDT 501. Self-reported food-insecure households decreased by 37pp, which was compensated by an increase of 16pp in the proportion of those self-reported as being food sufficient and of 19pp on the proportion of those who had food surpluses. Finally, the authors showed that there was a reduction of 31pp in the people reporting declining food consumption during the lean season. Altogether, the results of the impact evaluations of SLP programmes in Bangladesh reveal an excellent performance in terms of poverty reduction and improvement of the food security of their beneficiaries.

According to Banerjee *et al.* (2015)'s pooled evaluation of the six pilots of the CGAP/Ford Foundation Graduation into Sustainable Livelihoods programme, food consumption increased more than non-food consumption, both in absolute value and in relative terms. Food consumption increased by 7.5 percent over the control group's mean of PPP US\$51.60, and non-food consumption increased by 2.4 percent over the control group's mean of PPP US\$25.30. The elasticity of food consumption to overall expenditure appears to be greater than one. Because of the increase in food expenditures, food security indicators also improved.¹²⁵ Looking at the distributional outcomes of some of these results, the authors found larger improvements in food security indicators mostly in the bottom percentiles of the distribution of the outcome, since the poorest people were the most food insecure at the baseline. This is in contrast with the positive impacts on financial inclusion and asset accumulation that are observed at higher percentiles of the distribution. Similar to what Bandiera *et al.* (2013) reported on CFPR Phase 2, while effects on consumption and income for the pooled sample have been observed for all percentiles, they are larger for those at the top of the distribution.

Looking at the individual countries' results and focusing on endline 2, Banerjee *et al.* (2015) also found positive impacts on monthly total per capita consumption for all countries except Honduras and Peru. As for food per capita consumption, impacts were also found for almost

¹²³ According to the authors, the food consumption score is based on nine food groups as per WFP methodology. Four groups are formed based on the food consumption score: 1) poor consumption: equal or below 28; 2) borderline consumption: $42 \geq \text{score} > 28$; 3) acceptable low $52 \geq \text{score} > 42$; 4) acceptable high $\text{score} > 52$.

¹²⁴ They used 16 food types or groups (consumed over the past seven days).

¹²⁵ Various indicators on food security reported positive and significant impacts in endline 2. Among others, Banerjee *et al.* (2015) based the food security index on a range of yes/no indicators such as "household gets enough food", "no adults skipped meal", "no adults went the whole day without food", "no children skipped meals", and "everyone gets two meals every day". For the pooled sample, all of these indicators also showed positive impacts.

all countries (including Honduras and Peru), but not for Ethiopia. As for food security indicators, India (Bandhan) observed robust results for all indicators and, to a lesser extent, so did Ethiopia; for Honduras, Peru and Ghana authors did not find any impact. In Pakistan, the only significant positive impact was on the proportion of households where children did not skip a meal.

Reporting on the SKS/UPP pilot in India, Bauchet, Morduch and Ravi (2015) found no positive impact on total household income. The lack of impact was due to the fact that the income of both treated and comparison groups increased in tandem. For the control group, this increase was entirely driven by labour income, whereas in the case of the treated group the increase was driven by both livestock and labour income. The authors raise the issue of the substitution effect that SLPs may cause when implemented in areas with a tight labour market. The authors looked at five food security indicators: 1) adults cut portion size or skip meals; 2) adults do not eat for an entire day; 3) children under 16 cut portion size or skip meals; 4) all household members have enough food every day, all year; and 5) everyone in household eats two meals per day. Positive impacts were only found for “children under 16 cut size or skip meals” in a fall in its prevalence of 7pp.

Blattman *et al.* (2014) found that WINGS in Uganda increased monthly cash earnings by 92 percent for women and 74 percent for men. However, they did not report any indicator on food security. As for the Indira Kranti Patham (IKP) programme, Prennushi and Gupta (2014) reported a positive impact on total expenditures of 44 percent for the poorest beneficiaries and 187 percent for the Schedule Tribes (over the baseline of the comparison group). The authors also looked at the various impacts of the IKP on total expenditures according to the level of exposure to the NREGA employment guarantee schemes. They found that the impact of the IKP on total expenditures by poorest households was higher where NREGA had been active longer. In districts where NREGA had only been operating for a few months at the time of the follow-up survey, the impacts of the IKP were positive but not statistically significant.

IRC (2012) found that the P135 Phase 2 in Vietnam led to an increase of 14 percent on the per capita income of minorities as compared to the baseline level for the control group, which translated into a decrease of 10pp on the poverty headcount (a 24 percent fall over the baseline poverty headcount for the control group). No impacts were found for non-minority groups.

In Ethiopia, Gilligan, Hoddinott and Tafesse (2009) found that mean caloric availability is almost 10 percent higher for households that benefit from both the PSNP and OFSP as compared to households that had access to neither programme. Similarly, PSNP-OFSP caused a 0.36 increase in the number of months in which households were food secure. Further, the severity of the food gap was reduced in households that benefited from both programmes as shown by the negative and statistically significant impact on the change in the square of the food gap. An important question is whether the larger impacts for households that received PSNP and OFSP (and not just the public work component of the PSNP) were due entirely to the incremental effect of OFSP or to a greater involvement in public works as well. Greater impacts were found for joint PSNP-OFSP participation, which

is also partially due to higher transfers from public works to households in this subgroup. However, given the relative difference in the size of impacts for PSNP-OFSP beneficiaries compared to PSNP beneficiaries alone, it is unlikely that most of this effect is due to a difference in PSNP payments only. No impact was found on household per capita expenditure.

Nega *et al.* (2010) found that the Food Security Programme (FSP) in Ethiopia decreased total and chronic poverty by 18 and 13 percent, respectively, but had no impact on transient poverty. There was no impact of the Food for Work programme (FFW) on any of the three poverty measures used in this evaluation (total, transient and chronic). However, tertile regression results do show positive impacts of the FFW for the upper tertile in terms of reducing both total and chronic poverty.

Pace *et al.* (2016) found positive and significant synergies between the SCTP and FISP programmes on per capital total expenditures in labour-unconstrained households. For the overall sample, the impact of the SCTP alone was positive, whereas the FISP did not seem to affect this indicator. The impact on per capita food expenditure was only statistically significant for the group that benefited from both programmes. The authors also looked at food security indicators, namely, share of households worried about lack of food, number of meals per day and caloric intake in the past seven days. They found that while the stand-alone impact of SCTP on food security was positive and significant across indicators, the stand-alone impact of FISP was statistically significant only for the share of households worried about lack of food and only for the subsample of labour- unconstrained households. Authors did not identify any synergistic effect for any of the food security indicators.

In Nicaragua, Macours, Premand and Vakis (2012) reported that two years after the end of the intervention based on a CCT plus complementary programmes, and at average levels of shocks, households that were eligible for productive investment grants had higher consumption levels than households eligible for the training, but both were equally protected against the negative impact of drought shocks on consumption. The authors also found that, the basic CCT package without the complementary programmes did not offer protection against the negative effect of shocks two years after the end of the intervention. The authors also showed that two years after the end of the intervention, and at average levels of shocks, food consumption of households receiving the basic CCT package and the training package was also higher than in the control group. However, the impact of both the basic and the training package was very similar in magnitude. Higher impacts were observed for those eligible for the investment grant.

Garcia, Helfand and Souza (2016) found that joint *Bolsa Familia* and PRONAF coverage had positive synergistic impacts on agriculture income per family worker. The authors showed that expanding the coverage of *Bolsa Familia* programme was actually associated with a reduction in agricultural income per family worker (20 percent fall over the average agricultural per capita income in 1996), whereas the expansion of PRONAF had no effect on this variable. However, the combined increase of the proportion of rural households covered by both programmes led to an increase of 45 percent on agriculture income per family worker.

As for other evaluations in Latin America, Escobal and Ponce (2016b) found positive impacts of the pilot *Haku Wiñay* programme in Peru on household total income, a 7.8 percent increase over the baseline value. Qualitative perceptions of well-being confirm the result of improved household income after two years of programme implementation (24.4pp higher among the treated group compared to the control group). More interestingly, the treated group was 38.1pp more likely to acknowledge that the income of their village had increased in the last two years than the control group. However, the increased household income results seems to be largely driven by and much more robust for the higher tertile of the intensity of the treatment – measured as the monetized value of the interventions received. Actually, the positive impact on household total income is not statistically significant for the lower tertile of treatment intensity. However, even among households in the lower tertile there is a statistically significant perception (in comparison to similar control households in non-treated villages) that both their own income as well as the village’s income have improved in the last two years.

Escobal and Ponce (2016b) also reported positive and statistically significant impacts on the frequency of consumption for different food groups, including cereals, roots and vegetable, green leaves, beef and eggs. A dietary diversity index (Herfindahl indicator) confirms that dietary diversity increased by 2.5pp. It is worth noting that these positive results on household food security are directly linked to the programmes’ productive interventions that succeeded in improving on-farm and family production of vegetables, fruits and eggs, leading to a reduction in monetary expenditure with food items.

In contrast with the results reported by Escobal and Ponce (2016b) for the *Haku Wiñay* intervention, Aldana, Vásquez and Yancari (2016) found a negative impact on both gross and net income of the *Sierra Sur* programme among *Juntos* beneficiaries in Peru. However, when the authors look at the heterogeneity of these impacts, they find that they turn out to be positive and statistically significant for household couples (head and/or spouse) with higher levels of education and a higher initial asset endowment. De Sanfeliú *et al.* (2016) did not find significant impacts on income for the beneficiaries of the CCT and rural development programmes in El Salvador. However, the authors did find that former beneficiaries of the CCT programme who later participated in rural development programmes had improved their dietary diversity – a proxy for food security. Fernandez *et al.* (2016) found no synergistic impact of participating in both the IEF and FOSIS productive support programmes on per capita autonomous income. Moya (2016) did not find that *Oportunidades Rurales* in Colombia had an impact on food consumption, total consumption and the food security index.¹²⁶ The interaction between *Oportunidades Rurales* and *Familias en Acción* actually led to a reduction in total consumption for the earlier cohort. No impact was found for other indicators, neither for the earlier nor for the later cohorts. Similarly, *Oportunidades Rurales* seemed to have had a negative impact on the SISBEN score and on the subjective well-being indicator. The former result was observed in the later cohort, a reduction of 15 percent over the average score and the latter was observed for the earlier

¹²⁶ The author does not provide information on the methodology applied to calculate the food security index. In any case, since an ordered probit model was used to estimate the impacts, one can assume that the analysis is based on categories related to different levels of food security.

cohort (-0.18). No interaction between *Oportunidades Rurales* and *Familias en Acción* was identified.

Finally, Naude *et al.* (2016) assessed the impact of *Oportunidades and Procampo* and their interaction on a vulnerability index, on asset poverty, capability poverty and food poverty.¹²⁷ Although none of the estimated coefficients were statistically significant, the point estimates suggest that *Oportunidades*, if anything, was more likely to have a negative impact on capability poverty and food poverty indicators than on asset poverty and vulnerability, whereas *Procampo* had a negative (but not significant) impact on all four indicators. Similarly, the coefficient of the interaction between *Oportunidades* and *Procampo* was also negative for all four indicators, but not statistically significant. The authors noted the difference between their results and earlier evaluations that showed strong impacts of *Oportunidades* on poverty indicators. According to them, the differences in results can be explained by: a) different data sources used in the evaluations - in their case the ENHRUM sample was limited to small villages with 500 to 2 499 inhabitants; b) some of the eligible beneficiaries in the sample did not receive the transfers from the two programmes, particularly in the case of *Procampo*; c) the fact that their evaluation covers a more recent period than the others,¹²⁸ which may capture diluting effects of the programme over time; and d) differences in the outcomes analysed.

Table 10 Impacts on income, expenditure, consumption and food security

Indicator	Impact	Country	Combined programmes (category)
Income, expenditure and consumption	Positive: increase in per capita monthly food expenditure both medium- and short-term – Ahmed <i>et al.</i> (2009)	Bangladesh	CFPR Phase 1 (SLP)
	Positive: increase in per capita income – Emran, Robano and Smith (2014), Das and Misha (2010) and Raza, Das and Misha (2012)	Bangladesh	CFPR Phase 2 (SLP)
	Positive: increase in per capita income – Raza and Ara (2012) and increase in total annual earnings, earnings per hour and per capita food expenditure – Bandiera <i>et al.</i> (2013).	Bangladesh	CLP – Phase 1 (SLP)
	Positive: increase in average income and fall in poverty headcount - HTSPE (2011)	Bangladesh	ER+ (SLP and CP)

¹²⁷ Naude *et al.* (2016) also simulated and compared the impacts of phasing out *Procampo* and *Oportunidades* on net rural income using a social account matrix model to take into account the indirect effects of the programme. Phasing-out *Oportunidades* would lead to a fall of 1.3 percent in the net income of rural households (both beneficiary and non-beneficiary households). Since the income from *Oportunidades* accounted for just 1.2 percent of the total net income of rural households, it is not surprising that the multiplier effect of *Oportunidades* was quite low, thus its elimination would not lead to strong indirect impacts on income. As for the direct impact phasing out of *Oportunidades* on beneficiaries, the fall in net income would be 6.6 percent, with regional variations between 5.5 and 7.9 percent. The elimination of PROCAMPO would lead to a reduction of 0.1 percent in rural incomes, which reflects the lower amount of PROCAMPO transfers compared to *Oportunidades* as well as the small indirect effects of the programme. Among beneficiaries, the fall in income would be 0.9 percent, varying between 0.4 and 2.3 percent according to the region.

¹²⁸ Actually the most challenging feature of the evaluation is the lack of a clear baseline. The two waves of the panel ENHRUM (2002 and 2007) were merged for the analysis.

<p>Positive: increase in per capita monthly food expenditure and in total per capita monthly expenditure – Hernandez <i>et al.</i> (2015)</p> <p>Positive: increase in average monthly household income, average per capita monthly household income, per capita monthly expenditure on food; fall in poverty headcount – BDI (2012).</p> <p>Positive: food consumption increased more than non-food consumption and monthly total per capita consumption (the latter except for Ethiopia) – Banerjee <i>et al.</i> (2015)</p> <p>No impact: on total household income – Bauchet, Morduch and Ravi (2015)</p> <p>Positive: increase in monthly cash earnings – Blattman <i>et al.</i> (2014)</p> <p>Positive: increase in total expenditures by the poorest – Prennushi and Gupta (2014)</p> <p>Positive: increase in per capita income and fall in poverty headcount for ethnic minorities– IRC (2012)</p> <p>No impact: on household per capita expenditure – Gilligan, Hoddinott and Tafesse (2009) or on transient poverty – Nega <i>et al.</i> (2010)</p> <p>Positive: negative impact on chronic poverty – Nega <i>et al.</i> (2010)</p> <p>Positive: SCTP increase per capita total expenditure not affected by FISP and synergistic effects were found for labour-unconstrained households – Pace <i>et al.</i> (2016)</p> <p>Positive: interaction effect on agriculture income per family worker – Garcia, Helfand and Souza (2016)</p> <p>Negative: gross and net income, except for better educated and wealthier people – Aldana, Vásquez and Yancari (2016)</p> <p>Positive: increase in total family income and perception of improved income at household and village level. Increase in frequency of consumption of different food groups and in diet diversity largely driven by own production – Escobal and Ponce (2016b)</p> <p>No impact: on income – De Sanfeliú <i>et al.</i> (2016)</p>	Bangladesh	FSUP (SLP)
	Ethiopia, India, Pakistan, Ghana, Peru and Honduras	Graduation into Sustainable Livelihoods (SLP)
	India (Andhra Pradesh)	
	Uganda	Graduation into Sustainable Livelihoods – SKS (SLP)
	India	WINGS (SLP)
	Vietnam	IKP (CP)
	Ethiopia	P-135 II (CP)
	Malawi	PSNP and OFSP (CP)
	Brazil	SCTP+FISP (OP)
	Peru	
	Peru	Bolsa Familia and PRONAF (OP)
	El Salvador	<i>Juntos</i> and rural credit (OP)
	Chile	<i>Juntos</i> and <i>Waku Wiñay</i> (CP)
	Colombia	CSR and rural development (OP)
Mexico		

	<p>No impact: on per capita autonomous income – Fernandez <i>et al.</i> (2016)</p> <p>Negative: reduction in total consumption for earlier cohorts – Moya (2016)</p> <p>No impact on SISBEN score and on subjective well-being indicator</p> <p>No impact: on vulnerability index, on asset poverty, on capability poverty and on food poverty (negative, but not significant) – Naude <i>et al.</i> (2016)</p>		<p>IEF and FOSIS productive support (CP)</p> <p><i>Más Familias en Acción</i> and OR (CP)</p> <p><i>Oportunidades</i> and PROCAMPO (OP)</p>
Food security	<p>Positive: increase in daily per capita caloric (kcal) consumption and reduction of perceived food deficit – Ahmed <i>et al.</i> (2009); increase in food availability and the proportion of beneficiaries who have two meals per day – Emran, Robano and Smith (2014). Long-term impact on number of meals per day is almost non-existent due to catching-up by the control group – Misha <i>et al.</i> (2014)</p> <p>Positive: increase in the proportion of households that can afford two meals a day on most days – Bandiera <i>et al.</i> (2013), fall in wasting and underweight for children under 5, improvement in BMI for those aged 5-19 and above 19 and a fall in thinness for the same adult population – Raza and Van de Poel (2016).</p> <p>Positive: increase in the average number of full meals eaten by household members per day, the percentage of women consuming three full meals a day, in the average food consumption score, the number of food types consumed in the last week and a decrease in self-reported food-insecure households – BDI (2012)</p> <p>Positive: increase in food security index and each of its components – “household gets enough food”, “no adults skip meals”, “no adults go the whole day without food”, “no children skip meals”, and “everyone gets two meals every day. Individual countries: impacts are robust across indicators for India (Bandhan) and to a lesser extent in Ethiopia, and no impacts were found in Honduras, Peru, and Ghana. Impacts are larger at bottom quantiles – Banerjee <i>et al.</i> (2015)</p> <p>No impact: on whether adults cut portion size or skip meals; whether adults do not eat for whole day; whether all household members have enough food every day, all year; whether everyone in household eats two meals per day.</p> <p>Positive: reduction in percentage of children under 16 that cut portion size or skip meals – Bauchet, Morduch and Ravi (2015)</p> <p>Positive: increase in mean caloric availability and in the number of months in which the household was food secure and a decrease in the severity of the food gap – Gilligan, Hoddinott and Tafesse (2009)</p>	<p>Bangladesh</p> <p>Bangladesh</p> <p>Bangladesh</p> <p>Ethiopia, India, Pakistan, Ghana, Peru and Honduras</p> <p>India (Andhra Pradesh)</p> <p>Ethiopia</p> <p>Malawi</p>	<p>CFPR Phase 1 (SLP)</p> <p>CFPR Phase 2 (SLP)</p> <p>FSUP (SLP)</p> <p>Graduation into Sustainable Livelihoods (SLP)</p> <p>Graduation into Sustainable Livelihoods – SKS (SLP)</p> <p>PSNP and OFSP (CP)</p>

<p>Positive but no synergistic effect: SCTP improves food security across two indicators, FISP is mostly moot and synergistic effects are not observed.</p> <p>Positive: increase in food consumption – Macours, Premand and Vakis (2012)</p> <p>Positive: Increase in frequency of consumption of different food groups and in diet diversity largely driven by own production – Escobal and Ponce (2016b)</p> <p>Positive: impact on dietary diversity (CCT and rural development) – De Sanfeliú <i>et al.</i> (2016)</p> <p>No impact: on food consumption and the food security index – Moya (2016)</p> <p>Positive: reduction in children’s stunting (6-24 months)</p>	Nicaragua	SCTP and FISP (OP)
	Peru	<i>Atención a Crisis</i> and investment grant (CP) CSR and rural development (OP)
	El Salvador	<i>Juntos and Haku Wiñay</i>
	Colombia	CSR and rural development (OP)
	Bangladesh	<i>Más Familias en Acción</i> and OR (CP)
		SHOUHARDO (CP)

Source: authors’ own elaboration.

5.5 Strengthening participation in community networks and stimulating local economies

As discussed in the introduction and in Section 4 of this report, almost all of the impact evaluations selected for review focus on household/individual level outcomes. Community and local level impacts are at best marginalized in the analysis and are mostly referred to when estimating spillover effects on the eligible households/individuals that have been randomized out of the programme, particularly when the randomization is implemented at both village and household levels. Alternatively, one can look at the impact of the combined programmes on community-related outcomes by looking at spillover effects on non-beneficiaries as well as indicators on how the involvement of beneficiaries in community networks has been affected by the interventions. The scarce evidence on these dimensions is the focus of this section and is summarized in Table 11.

5.5.1 Spillover impacts

Only seven of the 37 evaluations looked at spillover effects. Among them only the evaluation of Sierra Sur plus Juntos in Peru and two evaluations of CFPR Phase II in Bangladesh showed spillover effects from the agricultural interventions to non-beneficiaries in treated areas. The other four evaluations were undertaken in the context of small-scale pilots and did not find any evidence of spillover effects on the eligible, but non-treated in population in treated areas. A lack of information on spillover effects, particularly the non-eligible populations, is a clear gap in the impact evaluation literature of both isolated and combined programmes

Banerjee *et al.* (2015) did not find any spillover effects in the treated villages of Peru, Honduras and Ghana, for which a sample of eligible non-treated households exists. These findings are at odds with other evaluations, particularly of larger programmes that do show significant spillover effects on eligible non-beneficiaries. One possible explanation might be the small size of some of the pilots. Unsurprisingly, one of the policy recommendations coming out of the paper is that the intervention should be scaled up by disseminating it to other villages rather than simply including more beneficiaries in the programme. This recommendation raises issues of horizontal equity, particularly for programmes where the cash transfer (consumption smoothing component) relies on medium- to long-term human development objectives that go well beyond immediate productive impacts (e.g. CCT programmes in LAC or long-term food security interventions such as the PSNP in Ethiopia).

Bandiera *et al.* (2016) and Raza and Van de Poel (2016) looked at spillover effects on non-eligible populations and did find a spillover for a couple of dimensions, particularly for the non-eligible poor. Bandiera *et al.* (2016) have shown that there have been general equilibrium effects on the labour market as the agricultural labour and maid wages for ineligible women increased. They also found an increase in the value of other business assets (livestock sheds, rickshaw, vans and pumps – excluding land) for the near-poor and the middle class, but the value of these assets is negligible compared with the impacts observed in livestock and land value for beneficiaries, thus it does not seem to lead to a considerable indirect effect of the programme. Moreover, no spillover effect was found on poverty rates or consumption expenditure per equivalent adult nor in the value of household assets held by ineligible households. Raza and Van de Poel (2016) found spillover effects from the same CFPR – Phase 2 programme on nutritional indicators (e.g. wasting and underweight), which are on average half of those identified in the eligible population. Similar finds for older population groups also show reductions in the probability of thinness for the non-eligible, however, these results seem to be restricted to the near-poor as compared to the non-poor, which suggests that social networks may be the main driver through which the health messages and interventions of the programme ‘trickle-up’ to the neighbours of the eligible participants.

Blattman *et al.* (2014) also looked at the spillover effects of Uganda’s WINGS on non-beneficiaries in treated villages¹²⁹ and found no impact on average income. This result however hides a small reduction in income among pre-existing traders and an increase in income among non-traders. The authors also found a slight shift towards agricultural work among the non-beneficiaries. No impacts on prices were identified, which suggests that markets in these villages are well integrated.

Aldana, Vásquez and Yancari (2016) show that non-beneficiaries of *Sierra Sur* who reside in districts where the programme was implemented were more likely to adopt improved

¹²⁹ Blattman *et al.* (2014) also looked at spillover effects on control treated, using the proximity to treated villages as a proxy to ‘treatment’. Their results showed a reduction in ‘petty trade’ in these villages, which may suggest some crowding out between treated and control villages.

agriculture practices than a similar group in non-intervention areas, showing how agricultural interventions may have indirect effects on non-beneficiaries.

5.5.2 Impacts on social and economic links with the community networks

Another important dimension of the community-level impacts of combined programmes is how the interventions change the way beneficiaries interact with their communities. This interaction can be captured by their reliance on and support to other members and/or institutions. A variety of indicators have been used in different contexts to capture this dimension. The evaluations that looked at this dimension found that SLPs and CPs that include components aiming at fostering self-help groups and associations were more likely to increase interactions between beneficiaries and their social networks, reducing social exclusion and increasing access to public services and community support.

Looking at the interaction between beneficiaries and their communities, Das and Misha (2010) reported that CFPR Phase 1 in Bangladesh had an impact on the social capital of their beneficiaries. Four years after the intervention, beneficiaries were 10pp more likely to receive an invitation from a non-relative neighbour and 6pp more likely to get some help from them. In addition, there was an increase of 22pp in the proportion of beneficiaries who believed that someone would lease land to them. Misha *et al.* (2014) found that by 2011 the effect of getting an invitation from a non-relative neighbour had disappeared largely due to a catch up by the control group.¹³⁰

Banerjee *et al.* (2015) found that the beneficiaries of the six pilots of the Graduation into Sustainable Livelihoods project, who were often marginalized in political and community processes, became more likely to be informed about the political life of their communities.¹³¹ The results from individual countries suggest that there was no impact in Peru and Honduras on any of the available indicators for these countries. Blattman *et al.* (2014) found significant increases in several aspects of community involvement for both men and women due to the WINGS programme in Uganda. These included social support, community participation and community leadership.¹³²

Prennushi and Gupta (2014) found that IKP beneficiaries were more likely to participate in government social programmes, such as NREGA, mid-day meals, housing and integrated child development services (ICDS). In contrast, Bauchet, Morduch and Ravi (2015) found that beneficiaries of the SKS/UPP were not more likely to benefit from government programmes, such as NREGA, pensions, government assets, government training,

¹³⁰ The authors reported very similar results to those found in Das and Misha (2010) for the medium term (2008-2002).

¹³¹ Using the pooled sample of the six pilots, the authors showed positive impacts of being member of a political party, attending community meetings, meeting with village leaders to talk about village concerns and overall political index.

¹³² All these variables are based on a set of questions that are summarized by z-scores. Larger z-scores values mean better results for the outcome of interest.

subsidised loans and the purchase of goods with a PDS card.¹³³ They were however more likely to have access to housing programmes.

De Sanfeliú *et al.* (2016) found an increase of 3pp in the probability of taking part in farmers’ associations among households that had simultaneous access to CCT and rural development programmes in El Salvador as compared to having access only to rural development programmes. Aldana, Vásquez and Yancari (2016) found no positive impact of *Sierra Sur* among *Juntos* beneficiaries with regard to the proportion of beneficiaries that are actively involved in farmers’ associations or organizations. If anything, the impacts were negative. In qualitative interviews, *Sierra Sur* beneficiaries reported that they had formed organizations to be able to take part in the programme’s interventions, but once the intervention ended they had no incentives to keep the organization running. These results raise the question of what forms of interventions or incentives are more likely to foster lasting forms of association and cooperation that could sustainably bring together poor family farmers in the Peruvian context.

Table 11 Spillover effects and impacts on participation in community networks

Indicator	Impact	Country	Combined programme (category)
Spillover effects and/or general equilibrium effects	No impact: on any of the relevant indicators reported in Banerjee <i>et al.</i> (2015) – spillover analysis restricted to Honduras, Ghana and Peru.	Ghana, Peru and Honduras	Graduation into Sustainable Livelihoods (SLP)
	Positive or neutral: wage increases for non-eligible women, increases in the value of other business assets and no negative effect on other dimensions – Bandiera <i>et al.</i> (2016). Nutritional status (anthropometric measures) of the non-eligible near-poor also improved, but to a lesser extent than did the eligible poor – Raza and Van de Poel (2016)	Bangladesh	CFPR Phase 2 (SLP)
	Negative: reduction in petty trade among those on waiting list in control villages No impact: on average incomes of the non-treated in treated villages, but a fall in income among pre-existing traders and an increase among traders in line with a shift of non-treated towards agriculture.	Uganda	WINGS (SLP)
	Positive: new technology adopted by non-treated in treated areas – Aldana, Vásquez and Yancari (2016)	Peru	<i>Juntos</i> and <i>Sierra Sur</i> (OP)

¹³³ PDS stands for Public Distribution System. A PDS card ensures access to essential goods (mostly food), which can be purchased at subsidized prices.

<p>Participation in community networks</p>	<p>Positive: social capital – beneficiaries receive an invitation from a non-relative neighbour and/or get some help from them; believe that someone would lease land to them – Das and Misha (2010) – but Misha <i>et al.</i> (2014) found vanishing long-term impacts on invitation from non-relative neighbour.</p> <p>Positive: beneficiaries more likely to be informed about the political life of their communities (member of a political party, attending community meetings, meeting with village leaders to talk about village concerns). Country specific results similar to aggregate. But no impacts were found for Honduras and Peru – Banerjee <i>et al.</i> (2015)</p> <p>Positive: beneficiaries participate in government social programmes such as NREGA, mid-day meals, housing and integrated child development services – Prennushi and Gupta (2014)</p> <p>No impact: on participation in government programmes such as NREGA, pension, government assets, government training, subsidized loans, use of PDS, but positive for access to housing programmes – Bauchet, Morduch and Ravi (2015)</p> <p>Positive: social support, community participation and community leadership – Blatman <i>et al.</i> (2014)</p> <p>Positive: participation in farmers’ associations (CCT and RD) – De Sanfeliú <i>et al.</i> (2016).</p> <p>No impact: participation in farmers’s associations – Aldana, Vásquez and Yancari (2016)</p>	<p>Bangladesh</p> <p>Ethiopia, India, Pakistan, Ghana, Peru and Honduras</p> <p>India</p> <p>India (Andhra Pradesh)</p> <p>Uganda</p> <p>El Salvador</p> <p>Peru</p>	<p>CFPR Phase 1 (SLP)</p> <p>Graduation into Sustainable Livelihoods (SLP)</p> <p>IKP (CP)</p> <p>Graduation into Sustainable Livelihoods – SKS (SLP)</p> <p>WINGS (SLP)</p> <p>CSR and rural development (OP)</p> <p><i>Juntos</i> and <i>Sierra Sur</i> (OP)</p>
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6. Conclusion: What has been learned so far

The evaluations of the agricultural and social protection programmes selected for this review reveal the existence of a considerable amount of evidence that combined programmes can have positive impacts that go beyond the impact of a standalone intervention. However, most evaluations fail to assess whether there is a multiplicative effect or a simple additive effect due to the coherent implementation of combined programmes.¹³⁴ Overall, the positive impacts reported in the evaluations from all three categories of combined programmes (SLP, OP and CP) show promising results on the following dimensions:¹³⁵

- Investment in productive assets;
- Savings and access to formal credit;
- Diversifying sources of income towards more stable, permanent and profitable sources;
- Shift towards self-employment, particularly for women, and/or shift towards more profitable and decent employment;
- Food security;
- Income, consumption and expenditure levels; and
- Poverty reduction.

Some issues related to joint programmes with different objectives have not been sufficiently investigated and/or evaluation results have revealed some trade-offs and limitations:

- Impact on child labour;
- Direction and scale of spillover effects over non-beneficiaries;
- Sustainability of the positive results in the long term when programmes are scaled-up.
- Investment in productive assets and financial inclusion were either larger for or restricted to the better-off beneficiaries. Reaching the poorest of the poor is still challenging even within the context of SLPs;
- The extent to which greater investment leads to long-term productivity and income gains, particularly for CP programmes in Latin America;

¹³⁴ Pace *et al.* (2016) was one of the few evaluations to clearly distinguish between synergistic and additive effects and to show which dimension profits most from the joint implementation of programmes (the “incremental effect”). Thus, although in many cases one fails to find synergistic effects, it is possible to show that for some programmes to have an effect on some indicators, it must be complemented by another category of programme. Thus, the fact that the sum of isolated impacts of standalone programmes is the same as their joint implementation does not mean that improving their coherence will not assist beneficiaries.

¹³⁵ These impacts were considered as welfare-enhancing in the context where they took place. Note however that a move away from wage labour or the diversification of sources of income are not a positive outcome *per se*. One can think of situation in which wage labour and specialization in some commodity crops coupled with insurance could be preferable (or more welfare-enhancing) than a low-return self-employed activity or diversification among subsistence crops only.

- Adequacy of standard agricultural extension services for the target population of social assistance programmes;
- Over-reliance on self-employment alternatives, overlooking better quality wage employment in the context of sustainable local development strategies;

The following section summarizes the main findings of the review and the limitations of the different categories of combined programmes. The final section singles out three major gaps in the literature that were identified in this review.

6.1 Findings and limitations by category of combined programmes

The evaluations of SLPs suggest that, in general, they have had strong positive impacts across a variety of outcomes. In particular, they have enabled households to make productive investments beyond the asset transfers they received, increased their income and consumption levels, fostered both on-farm and non-farm self-employment, especially among beneficiary women, facilitated access to credit, promoted savings and improved food security.¹³⁶ However, Misha *et al.* (2014) raised the question of whether the ‘big push’ promoted by the SLP, at least in the case of the CFPR Phase 1, would be enough to bring the poorest of the poor out of extreme poverty in the long term. The authors found that many of the programme impacts tended to have reduced seven years after the intervention. In some cases, this was largely due to catch up by the comparison group, which ended up having access to similar interventions, but in other cases it was mostly because the treated group fell back into harmful coping strategies. Continuous support from social protection interventions and/or access to programmes to support productive activities might be necessary to ensure that the investments made during the limited duration of an SLP and its impact are not wiped away when households face negative shocks years after the intervention. Measures are needed to ensure that former beneficiaries are included in the mainstream of agricultural services (credit, extension services, access to new technologies, etc.). A transition from an SLP towards a CP could be the desirable graduation path for beneficiaries of an SLP, was and this was actually the rationale for the design and implementation of the CFPR Phase 1.

Implementation and design challenges can also hinder SLP impacts. Bauchet, Morduch and Ravi (2015) pointed out contextual factors that led the SKS/UPP intervention in India to have much weaker impacts than other pilots of the Graduation into Sustainable Livelihoods project in Asia. In particular, they argued that the impact of the SLP can be negatively affected in a context of high household indebtedness, which leads beneficiaries to sell their assets to pay off debts. They also discussed the pertinence of an SLP in a context where labour markets are tight and the programme incentivizes a shift towards self-employment.

¹³⁶ Although the distributional analyses of impacts have shown, in general, positive impacts on asset ownership, income and consumption for all deciles of the outcome distribution, impacts were much greater in the highest deciles. Moreover, impacts on outcomes related to financial inclusion were statistically significant only in the upper deciles (above the median). Both sets of results suggest that further measures may be necessary to ensure that the poorest of the poor can profit from these interventions as much as people who are slightly better off. It is interesting to note that for food security indicators, impacts are larger and significant only in the lowest deciles (Banerjee *et al.*, 2015).

Another contextual factor that was discussed in the SLP evaluations relates to the cost of some SLP components in middle-income countries and the technical capacities required for implementing integrated interventions. The cost of coaching, which involves regular visits by trainers is likely to be much higher in countries such as Peru and Honduras as compared to Pakistan and India¹³⁷ (Banerjee *et al.*, 2015).

Another aspect is the need to unbundle the contribution of each of the SLP components, since most of them tend to focus on aggregate results.¹³⁸ A rare exception was the experimental evaluation of the WINGS programme in Uganda by Blattman *et al.* (2014), whose results suggested that more ‘coaching’ visits did not lead to a higher income, but instead resulted in higher investment levels by beneficiary households. Unpacking the various elements of an SLP is important for informing the replication of these interventions as well as deciding which could be the most important components to be prioritized also in the context of CP and even OP.

Finally, there is the issue of scaling-up SLPs. Banerjee *et al.* (2015) argued that expanding an SLP across villages, while continuing coverage in treated villages, is likely to avoid negative spillovers or general equilibrium effects (e.g. wage and price inflation) that could minimize the intervention’s impact.¹³⁹ Such an approach may raise issues of horizontal equity: how to justify leaving segments of the eligible population out of the programme. But it also touches upon the feasibility of a livelihoods-based programme that relies solely on self-employment as a way out of extreme poverty, overlooking issues related to fostering different employment possibilities for the poor and vulnerable as highlighted by McCord and Slater (2015).

The evidence gathered in this review covers a broad spectrum of programmes with different levels of integration between agricultural and social protection programmes. Almost no evaluation of complementary programmes had an experimental design,¹⁴⁰ the only exception being Macours, Premand and Vakis (2012)’s study of the complementarities between CCTs

¹³⁷ Peru had the lowest internal rate of return of the five countries with higher benefits than costs. Note that in Honduras the benefits were not higher than costs (Banerjee *et al.*, 2015).

¹³⁸ None of the evaluations disentangled the impact of the cash transfer from other programme components. It would be interesting to learn more about the role of consumption support in preventing asset depletion. This could offer some hints, especially looking at the long run, as to how social transfers could be better complemented by productive interventions beyond the limited objective of graduating families from social cash transfers.

¹³⁹ It is worth noting however that larger scale SLP interventions whose impact evaluations were also discussed in this review, such as the ER+ and the FSUP and even the CFPR Phases 1 and 2, also had impacts similar to the ones reported in Banerjee *et al.* (2015), which were based in very small pilots.

¹⁴⁰ A limitation in the Latin American evaluations selected for this review is precisely the lack of experimental or quasi-experimental design. Except for Macours, Premand and Vakis (2012) and the two evaluations of the CGAP/Ford foundation pilots for Honduras and Peru, all other evaluations covering Latin American countries relied either on secondary data or on *ex post* surveys to gauge the impact of the programmes. This limited the set of outcomes one can look at in the evaluations as well as forcing evaluators to work with second-best methodologies. These constraints are particularly worrying as many governments in the regions are implementing economic or productive inclusion programmes without having a clear notion of what works and what does not.

and investment grants and CCTs and training in Nicaragua.¹⁴¹ That evaluation showed the very strong impacts of the combination of CCTs and investment grants implemented to ensure that rural households could diversify their sources of income away from agriculture. Escobal and Ponce (2016b) reported similar positive impacts in their evaluation *Haku Wiñay* programme in Peru, where beneficiaries of *Juntos* with access to *Haku Wiñay*, had much better results than those without. Similarly, Aldana, Vásquez and Yancari (2016) showed that beneficiaries of *Juntos* that also participated in *Sierra Sur* rural development initiatives were more likely to adopt new productive practices and invest more in their businesses¹⁴² than those who did not participate. However, these investments only translated into more income for farmers with higher levels of education and assets, which again raises the issue about the capacity of less-endowed households to profit from combined programmes.¹⁴³ Del Pozo (2014) only looked at asset accumulation but showed that overlapping rural credit and *Juntos* enabled rural households to invest more in assets, particularly in cultivated land area and poultry, than those who received *Juntos* only.

Other CPs such as the IKP in Andhra Pradesh in India and the P135 Phase 2 in Vietnam also seem to have had important positive impacts on asset accumulation, investment, income and expenditures and poverty reduction; these impacts were particularly strong for the poorest of the poor and minority groups. As in the case of the SLP evaluations, the evaluation designs adopted by Prennushi and Gupta (2014) and IRC (2012) did not disentangle the impact of the different components of the interventions as much as in the case of the SLP. Smith *et al.* (2013)'s evaluation is an example of how one could try to disentangle programme effects and measure the synergistic aspects, at least for the key components of CPs based on multiple interventions and implemented by different agencies.

Gilligan, Hoddinott and Tafesse (2009) and Hoddinott *et al.* (2012) showed how the progressive integration of PSNP and OFSP/HASP (CPs) in Ethiopia seemed to have overcome some of the previous constraints to generating synergistic effects. However, as in the case of Peru's OPs *Juntos* and *Sierra Sur*, synergies between the two programmes seem to be much stronger on the input side, as illustrated by the higher levels of investment in inputs and the adoption of new technologies, than on the outcome side, since positive impacts on productivity were not as strongly attributable to the interaction of the programmes as were impacts on investment. In any case, it is important to highlight that limitations of the evaluation designs may have biased the results.

¹⁴¹ In the case of OPs, the possibility of using experimental design is much reduced as the programmes are not designed to be jointly implemented or to complement each other. Thus evaluations are usually based on secondary data designed for other purposes, which limits the issues that can be assessed in the evaluations and their scope.

¹⁴² Likewise De Sanfeliú *et al.* (2016) also showed that beneficiaries of both CCT and rural development programmes in El Salvador were more likely to adopt new crops and to have access to financial markets than people who just received the rural development programmes.

¹⁴³ Tiwari *et al.* (2015), in their evaluation of the impact of Zambia's Child Grant (CG) model of the Social Cash Transfer (SCT) on the technical efficiency of agricultural households, only found small improvements in technical efficiency for well-off CGP beneficiaries. This result suggests: 1) the insufficiency of investment in inputs to ensure improvements in technical efficiency; and 2) the need for extension programmes able to increase technical efficiency among farm households in all income groups.

Garcia, Helfand and Souza (2016) showed that the joint expansion of *Bolsa Familia* and subsidised rural credit for family farmers in Brazil can have an aggregate positive impact on agricultural productivity. Their analysis also showed that higher levels of *Bolsa Familia* coverage were associated with lower incidence of child labour. But again, given the challenges involved in the evaluation OPs, the authors were very cautious about attributing a causal relationship and preferred to emphasise the association between these variables.

To add some nuance to the overwhelmingly positive impacts that have been summarized in this paper, the evaluations reported in Moya (2016) for Colombia and in Fernandez *et al.* (2016) for Chile failed to find positive impacts on income and consumption. Both evaluations looked at synergies between CCT programmes and programmes that support the productive capacity of farmers (Colombia) and individuals (Chile). In the case of Colombia, *Oportunidades Rurales* had clear positive impacts on productive and total asset value, but *Familias en Acción* beneficiaries actually fared worse than non-beneficiaries, suggesting that the interaction between the programmes was negative for these outcomes. Based on a qualitative assessment, Moya (2016) largely blamed a fear of losing the CCT benefit and the inadequacy of the tools used in rural extension services for this negative interaction. This was in contrast with most pilots of the SLP interventions, which suggests that the Asian livelihoods interventions were more successfully adapted to poor and vulnerable populations than were programmes in Latin America. Evaluating the efficacy of rural extension services for poor and vulnerable family farmers should be done before scaling-up traditional agricultural models for structurally distinct farmers. In addition, contextual factors that may need other types of interventions, such as the infrastructure to ensure that they have access to markets, must be factored in.

The evaluations from Latin America also show that CPs and OPs were not very successful in supporting collective mechanisms to deal with risk-sharing. Aldana, Vásquez and Yancari (2016) found that increases in the level of organization of farmers were short-lived and aimed only at eligibility for the programme interventions. Similarly, Moya (2016) commented on how farmers' organizations included *Familias en Acción* beneficiaries seeking to become eligible for the *Oportunidades Rurales* interventions, but failed to support the latter. Also, the impact on microinsurance lasted only for the duration of the *Oportunidades Rurales* programme, since family farmers did not contract microinsurance with their own resources after the subsidy was terminated. These short-lived impacts raise the question of how effective is the design of these interventions, particularly those meant to change behaviour and preferences, when implemented for a short period only.

Overall, it seems that determining which combination works best is very context-specific, requiring a specific theory of change. Decisions on how to combine, align and/or integrate different programmes can be informed by cost-benefit and cost-effective analysis, but priorities and policies may differ in different settings and countries. Finally, it seems clear from the evaluation results reported in this review that the poor and extreme poor, even those in labour-constrained households, do engage, to some extent, in income-generating activities. However, expecting them to graduate from social protection programmes seems a misplaced objective, as it overlooks the fact that social protection programmes are for all those who face risks and vulnerabilities, not only for the poor. Thus even if they move above

the programme's eligibility line and are graduated from it, they will still need other types of social protection (e.g. social security) to be able to face the risks associated with the life cycle and the productive life of individuals and families. In addition, some beneficiaries may never be able to graduate – given their demographic profile – and others may fall back into poverty and will still need social assistance programmes to support them.

6.2 Methodological gaps and areas for further investigation

The gaps identified in the literature selected for this review can be classified into three areas. The first area includes gaps in the analysis of individual/household-level outcomes. As we have seen, there are few impact evaluations with a robust evaluation design to assess CPs. Using experimental designs or good quasi-experimental designs requires initiatives to mainstream them into the policy-making process, making sure that they are incorporated into the design phase of the integration of programmes. As for SLPs, the challenge is to better assess the role of each component and determine how impacts vary across different contexts, particularly for limited-coverage pilots, and to understand how the SLP will link to more structural and permanent government social protection programmes beyond short-term consumption support. For both CPs and SLPs, it is necessary to do more research on spillover effects to better gauge the overall impact of the programmes, even though this might imply more data requirements and evaluations that are more expensive. It will be critical to look at spillover effects on the non-eligible as well as eligible populations in programme areas as seen in Bandiera *et al.* (2016) and Raza and Van de Poel (2016). Thus, it seems relevant for future evaluations to focus on productive impacts of both agricultural and social protection interventions, looking also at spillover effects on non-eligible households.

The second area goes beyond household/individual-level outcomes to look at the impact of combined interventions on the community and local markets. For example, in the context of an exogenous injection of cash from social cash transfers, it would be important to know whether parallel agricultural interventions targeting better-off farmers, such as input subsidies¹⁴⁴ and/or rural credit, were able to support the increase in supply necessary to keep inflation down and to explain possible spillover effects captured in household-level analysis. Methodologies such as the LEWIE models (Taylor *et al.*, 2013) discussed in the introduction could be applied to better assess combined interventions that do not necessarily target the same populations and estimate the local general equilibrium effects of these combined programmes.

Finally, the third gap in current knowledge is due to the lack of impact evaluations of programmes that combine food-based social protection programmes and purchases from family farmers.¹⁴⁵ For example, in the search protocol we were unable to find rigorous evaluations of the impact of Bangladesh's subsidised paddy/wheat purchases from family farmers, which are distributed through food-based social protection policies/programmes such as the Open Market Sales, Food for Work, and Vulnerable Group Feeding.

¹⁴⁴ Costly input subsidy programmes could be evaluated in tandem with cash transfers for possible complementarities as pioneered by Pace *et al.* (2016).

¹⁴⁵ In this review, only one paper looked at this issue. Upton *et al.* (2012) exploit a natural experiment in a very interesting way, but given the absence of a baseline and a stronger evaluation design many relevant outcomes of interest were left out of their analysis.

Similarly, there has been no robust impact evaluation of the Brazilian Food Procurement Programme (PAA), in which purchases from family farmers support food-insecure and vulnerable groups. Finally, as mentioned in the Introduction there are almost no robust impact evaluations looking at home grown school feeding programmes (supply and demand side), which seems to be particularly important in sub-Saharan Africa.¹⁴⁶ All available evidence focuses on education and nutrition outcomes,¹⁴⁷ ¹⁴⁸ overlooking the impact of the purchase of food on the livelihoods of vulnerable farmers, Upton *et al.* (2012) seems to be the only exception.

¹⁴⁶ See Gelli and Espejo (2012) about the weakness of the monitoring and evaluation of school feeding programmes in sub-Saharan Africa.

¹⁴⁷ It is worth noting that nutrition outcomes, in particular anthropometric indicators, have been overlooked in most evaluations reviewed in this paper. Only Smith *et al.* (2013) and Raza and Van de Poel (2016) looked at these indicators.

¹⁴⁸ See Alderman, Gilligan and Lehrer (2008) for an assessment of evidence around school feeding programmes.

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Appendix

Table A.0. Search strings used per geographical coverage, types of programmes and outcomes of interest

Population	Social protection and agricultural interventions	Outcome of interest
Rural poor and vulnerable populations living in Latin America, Africa, Asia and Eastern Europe	Social protection and agricultural interventions	Hunger, malnutrition and poverty
	<p>Social protection:</p> <p>Social assistance Cash transfer Social cash transfer / social grant Basic income/ minimum income Conditional cash transfer Financial transfer / monetary transfer Child grant / benefit / allowance Disability grant / benefit Old age grant / benefit / pension / social pension / non-contributory pension Food transfer Asset transfers (+) Cash for work/ food for work Public works / employment guarantee Schemes / public employment programmes Microfinance Home grown school feeding programme (including take home rations) Fee waivers (health and education) Weather-based crop insurance</p> <p>Agriculture interventions:</p> <p>Seed transfers Improved seed transfers Agricultural asset transfers Fertilizer subsidies (vouchers) Extension services: market information, farmer field schools, technical advice on climate-smart agriculture Subsidized credit Investment grants (+) Low-cost farming equipment Input technology Inputs for work Institutional procurement/demand Homestead gardening Minimum price Price hedging Savings Financial literacy Basic entrepreneurship</p>	<p>Income Earnings Expenditure Spending Consumption Food consumption Purchase FGT Poverty headcount Poverty gap Poverty depth Poverty severity Benefit incidence Expenditures on agricultural inputs Inputs Fertiliser Seed Investment Disinvestment Income generating activities Coping strategy Productivity Production Own production Off-farm labour Risk Yield Asset Livestock Smallstock Housing Property Land Tools Equipment Vehicle Bicycle Savings Borrowing Loans</p>

Land titling	Debt
Land reform	Credit
Rural infrastructure	Business / trade
Soil and water conservation	Income-generating activity
Irrigation	Employment
Market arrangements	Labour supply
Cooperatives	Labour demand
	Hiring
	Jobs
	Work
	Workforce
	Labour market
	Labour participation
	Labour allocation
	Number of hours worked
	Informal
	Formalization
	Migration
	Time allocation
	Child care
	Child labour
	Wage
	Salary
	Diversification of income sources
	Income multiplier
	Spillovers
	Price levels
	Social networks
	Private transfers
	Remittances
	Food security/ food insecurity
	Food access
	Food diversity
	Dietary diversity
	Food variety
	Vitamins
	Micronutrients
	Diet
	Food intake
	Nutrition*
	Calories
	Nutritional supplements +
	Stunting
	Wasting
	Malnutrition

(+) depending on the design, can be classified as social protection or agricultural interventions.

Table A.1 Evaluation papers dates

Year	Frequency.	%
2009	2	5
2010	2	5
2011	1	3
2012	7	19
2013	1	3
2014	5	14
2015/6	19	51
Total	37	100

Table A.2 Main features of the interventions¹⁴⁹

Programme	Country	Social Protection intervention	Agricultural Intervention and others	Typology	Coordination	Target population	Number of Beneficiaries	Implementer	Ministries
CFPR (Phase 1) 2002-2006	Bangladesh	Cash transfer (weekly stipend) to avoid depletion of assets. Nutritional supplements and access to BRAC's doctors free of charge during the 24 months of the programme.	<u>Productive asset transfer</u> jointly with continuous and intensive training sessions, both in-class and hands-on as well as follow-up coaching visits. <u>Supported business activities</u> (9 options): goat-rearing, cow-rearing, livestock (a combination of cow-rearing and goat-rearing), Black Bengal goat-rearing (special farm), cow and poultry rearing, vegetable cultivation, horticulture nursery, non-farm activities and poultry for egg production.	Sustainable livelihoods approach	Fully coordinated	Ultra-poor women. The ultra-poor population is the lower subset of the extremely poor, earning less than \$0.60-\$0.70 per day. Selected through wealth ranking plus inclusion and exclusion criteria.	About 100 000 households in 15 districts in Northern Bangladesh.	BRAC	-
CFPR (Phase 2) 2007 – 2011 Same as CFPR 1, but intensity of coverage and diversity in support packages were strengthened	Bangladesh	Cash transfers (weekly stipend) to avoid depletion of assets. Nutritional supplements and access to BRAC's doctors free of charge during the 24 months of the programme.	<u>Productive asset transfer</u> jointly with continuous and intensive training sessions, both in-class and hands-on as well as follow-up coaching visits <u>Supported business activities</u> (9 options): goat-rearing, cow-rearing, livestock (a combination of cow-rearing and goat-rearing), Black Bengal goat-rearing (special farm), cow and poultry rearing, vegetable cultivation, horticulture nursery, non-farm activities and poultry for egg production.	Sustainable livelihoods approach	Fully coordinated	Ultra-poor women – same criteria as CFPR (Phase 1)	370 300 households	BRAC	-
ER+ (2011-2012)	Bangladesh	Public works (ER) and cash transfer in the 3rd year (2013) - 500 BDT per month.	Group-based entrepreneurial skills training to select income-generating activity. After business plan is prepared: investment grant of 12 000 BDT if successful and then regular coaching takes place.	Sustainable livelihoods approach (complementary approach)	Fully coordinated	Beneficiary women and/or spouse of beneficiary men.	ER+: 18 000 women and ER: 80,000 workers/trainees for food/cash for work and training.	Government of Bangladesh, community members and NGOs, WFP.	Ministry of Local Government, Rural Development and Cooperatives

¹⁴⁹ Note that the classification of the agricultural and social protection interventions used in Table A.2. does not allow cross-cutting components such as those presented in Section 3. As the agricultural interventions column here allows for 'others', the cross-cutting components were, in general, placed jointly with agricultural interventions.

CLP (Phase 1) (2004-2010).	Bangladesh	Monthly cash transfers (18 months) after receiving the investment grant: BDT 350-600	Investment grant between BDT 13 000-17 000 to buy productive asset, promotion of homestead gardening (lifting it above floodlevel), health counseling and community-level upgrading of water and sanitation	Sustainable livelihoods approach	Fully coordinated	Poor and vulnerable families living in the riverine areas of five districts of the northern Jamuna	90 684 (core: 55 000 - divided into 4 cohorts)	local NGOs	Ministry of Local Government, Rural Development and Cooperatives
SHOUHARDO (Phase I) (2005-2009)	Bangladesh	Food assistance for pregnant and nursing mothers and children 6-24 months and food and cash for work	Homestead development (vegetable production, livestock, etc.) and income-generating activity (agriculture and livestock)	Complementary programmes	Some coordination	Most remote and vulnerable areas of the country and, within these areas, the poorest households	The final participant list included 400 000 hh representing on average three-quarters of all hhs in project villages	CARE Bangladesh in partnership with 44 local NGOs for implementation.	At the coordination level: key government partners including Local Government Division, Local Government Engineering Department, the National Institute of Local Government, and a coordinating committee comprising 11 other ministries
CGAP/Ford Foundation Graduation in Sustainable Livelihoods Project (Evaluated by IPA)	Ethiopia	Food support through food-for-work programme (PSNP). About 5 days of work (which can be completed once per month) earns 15 kg of wheat, 0.66 kg of chickpeas and 0.4 liters of oil, worth approximately ETB 100 (PPP US\$25.99). Control group also participated in the programme.	Asset transfer (PPP US\$1,227) – goats/sheep, oxen, bees, training and coaching, savings (mandatory), coaching (weekly over 24 months), life skills training	Sustainable livelihoods approach (complementary programme to PSNP)	Fully coordinated	PSNP's food/cash-for-work beneficiaries in the target areas (food-insecure household with able-bodied members)	458	Local NGO: the Relief Society of Tigray (REST)	-
CGAP/Ford Foundation Graduation into Sustainable Livelihoods Project (Evaluated by IPA)	Pakistan	Monthly cash transfer (during the first year of the programme): PKR 1 000 (PPP US\$69.56)	Asset transfer (PPP US\$1 043) – goats, sheep, hens, training and coaching, savings (encouraged), coaching (weekly but shift to monthly or bimonthly), health education, basic health services and life skills training	Sustainable livelihoods approach	Fully coordinated	Similar to CFPR (Phase 1) – focus on ultra-poor women where no active males in the hh.	660	Multiple local NGOs	-
CGAP/Ford Foundation Graduation into Sustainable Livelihoods	India	Weekly cash transfers of INR 90 (PPP	Asset transfer (PPP US\$437) – goats, cows and non-farm microenterprises, training, savings (mandatory),	Sustainable livelihoods approach	Fully coordinated	Ultra-poor hh with able-bodied females member with no	512	Bandhan, local MFI	-

Project (Evaluated by IPA)		US\$8.76) for about 13 to 40 weeks depending on asset chosen.	coaching (weekly over 18 months), health education, basic health services and life skills training and support from village assistance committees.			active male in the hh.			
CGAP/Ford Foundation Graduation into Sustainable Livelihoods Project (Evaluated by IPA)	Honduras	One-time food transfer (to cover 6 months, PPP US\$217). Selection criterion does not exclude those benefiting from CCT, but excludes beneficiaries from other development programmes.	Asset transfer (PPP US\$537) – hens, pigs and fish; training, savings (mandatory with incentives), coaching (weekly for 24 months), health education, basic health services and life skills training, support from village assistance committees	Sustainable livelihoods approach	Fully coordinated	Ultra-poor households with children not participating in other programmes except for CCT	800	Local and international NGOs: PLAN and Arariwa (microfinance)	-
CGAP/Ford Foundation Graduation into Sustainable Livelihoods Project (Evaluated by IPA)	Peru	Treatment households that were not enrolled in the government CCT programme (<i>Juntos</i>) received monthly cash transfers of PEN 100 (PPP US\$71.96). Treatment and control households enrolled in <i>Juntos</i> received bimonthly cash transfers of PEN 200 (PPP US\$143.33). About 57 percent of the control group also received <i>Juntos</i> .	Asset transfer (PPP US\$854) – guinea pigs, hens, cattle; training, savings (encouraged), coaching (every six weeks over 24 months), health education, basic health services and life skills training	Sustainable livelihoods approach (complementary programme to <i>Juntos</i> for some beneficiaries)	Fully coordinated	Ultra poor, able-bodied, children in the household; no formal employment for head or spouse. Programme does not have a clear focus on women unlike others.	785	Local and international NGOs: PLAN and OEDF (microfinance)	-
CGAP/Ford Foundation Graduation into Sustainable Livelihoods Project (Evaluated by IPA)	Ghana	Weekly cash transfers of GHS 4 to 6 (PPP US\$6.02 to 9.03) during the lean season - amount variable with household size	Asset transfer ((PPP US\$451.38) - goats and hens, goats and maize inputs, shea nuts and hens, training, savings (mandatory for 50 percent of beneficiaries with saving accounts), coaching (weekly over 24 months), health education, basic health services and life skills training, and support from village assistance committees.	Sustainable livelihoods approach	Fully coordinated	Ultra poor – able bodied and presence of women in the hh	666	Local NGO: Presbyterian Agricultural Services	-
SKS Ultra Poor Programme (SKS-UPP) (CGAP/Ford Foundation)	India	Cash transfer on a per need basis (US\$12 – given per demand over 18 months). Social development: building safety nets and connecting participants to existing public safety nets.	Asset transfer (US\$195.61) - buffaloes, training, cash stipend for working capital, mandatory savings, essential health care and financial literacy.	Sustainable livelihoods approach	Fully coordinated	Ultra poor	426	Local NGO: SKS	-
Women's Income Generation Support – WINGS (2009-2011)	Uganda	No income/consumption support, but cash support for working capital (similar non-depletion function for asset)	Investment grant (PPP US\$375) after 5 days of business skills training, regular follow-up by trained community workers (four to five visits	Sustainable livelihoods approach	Fully coordinated	Young ultra poor – 75 percent women.	1 800 (divided into two cohorts of approximately 900 each)	Local NGO: AVSI	-

			over 6 months), and self-help group for some of treated households. Field workers encouraged clients to consider high cash flow activities that would diversify their income sources. They strongly encouraged petty trade (buying items in the city and reselling) over investing the grant in alcohol brewing or livestock. Business plan need to be approved. About 95 percent of clients made business plans for buying and selling goods – generally produce or some assortment of food and small household items.						
Indira Kranti Patham + NREGA (2004-2008 – Phase 1)	India	Self-help group participants access existing programmes. It also overlaps with NREGA – employment guarantee schemes in some areas – heterogeneity of impacts is evaluated.	Formation of self-help groups (SHG), investment/seed funds, access to low-cost credit (links groups to banks), savings, training in social and economic skills, as well as livelihoods. Savings and investment fund were the most accessible interventions.	Complementary programmes plus sustainable livelihoods component	Some coordination and overlap with employment guarantee schemes and other social programmes	Poor women in rural areas	Large numbers, but unclear from paper.	District Rural Development Agencies (DRDAs)	Department of Rural Development, Government of Andhra Pradesh
P135-II	Vietnam	Access to public services	Infrastructure development, capacity-building, access to basic services and agricultural support: skills and training of ethnic minorities for improved livelihoods. Includes extension services, demonstration models and distribution of agricultural inputs	Community-level intervention, complementary programmes and livelihoods approach	Some coordination (at geographical not household level)	Poor ethnic minorities in remote areas.	Large numbers, but unclear	Decentralized - local government	Committee for Ethnic Minority Affairs (CEMA)
PSNP and OFSP/HASP	Ethiopia	Public works (labour-unconstrained households) and cash transfers (labour-constrained households)	Agricultural extension services, technology transfer (advice on food crop production, cash cropping, livestock production and soil and water conservation) and irrigation and water harvesting schemes	Complementary programme	Some coordination (HASP built on OFSP but it was meant to improve coordination and access for PNSP beneficiaries)	Chronically food insecure who are able-bodied and self-select for cash/food for work	7 million	Government of Ethiopia	Government of Ethiopia
FFW and FSP	Ethiopia	Public works	Credit/loans (food security package). The household level FSP intends to	Combined programme	Some level of coordination	Chronically food-insecure who are	7 million	Government of Ethiopia	Government of Ethiopia

			diversify the income base of the poor through provision of resources (credit) for a range of activities in a package. Identifying the basic interest of the rural poor and providing the required resources, technical assistance and training to engage in their choice of activities so as to secure food at household level and sustain income over time is the prime concern of the FSP programme.		(more geographical)	able-bodied and self-select for cash/food for work			
Social Cash Transfer Programme (SCTP) and Farm Input Subsidy Programme (FISP)	Malawi	Social cash transfer	Input subsidy	Overlapping programmes	No coordination (overlapping)	SCTP: ultra-poor households, defined as households unable to meet their most basic urgent needs, including food and essential non-food items and labour-constrained households FISP: smallholder farmers who are resource-poor but own a piece of land	SCTP: 100 000 hha (by April 2015) FISP: 1.5 million farmers	Government of Malawi	SCTP: Ministry of Gender, Children and Social Welfare (MGCSW) and Ministry of Finance, Economic Development and Planning (MFEDP) FISP: Ministry of Agriculture and Food Security
Local Education Assistance and Procurement (LEAP) project	Burkina Faso	School Feeding Programme	Local Procurement from smallholder farmers	Complementary Programmes	Fully coordinated	Local farmers organisations from poor areas and schools in poor areas	368 schools in 8 departments – 58,127 students received 20 daily rations per month. 22 Farmers' organizations - average from 10 to 58 members.	Catholic Relief Services (USAID funds)	Not clear
Atención a Crisis (CCT) plus investment grant and vocational training.	Nicaragua	CCT (one-year pilot)	Vocational training and investment grants (different groups received each component)	Complementary programme	Fully coordinated	Extreme poor in drought prone area (proxy means testing)	3 000 families	Ministry of the Family	Ministry of the Family
Juntos plus Rural credit	Peru	CCT (families with children)	Rural credit (different types)	Overlapping programmes	No coordination (overlapping)	Extremely poor families in rural areas	737 144 families (<i>Juntos</i> in 2015). Rural credit (2012 agricultural census): only 8 percent of	Ministry of Social Inclusion and Development (<i>Juntos</i>) and credit	Ministry of Social Inclusion and Development (<i>Juntos</i>) and credit institutions

							rural households have obtained some kind of productive credit (186 491 households nationwide)	institutions (public and private)	(public and private)
Bolsa Familia plus PRONAF	Brazil	CCT (monthly cash transfers)	Rural credit	Overlapping programmes	No coordination	Poor families (<i>Bolsa Familia</i>) and family farmers (PRONAF)	13.9 million families (<i>Bolsa Familia</i> in 2015) 2006 agricultural census: 14.3 percent of the family farms had access to PRONAF subsidized credit	Ministry of Social Development and Fight against Hunger (MDS - CCT) and Ministry of Agrarian Development and Ministry of Finance (rural credit)	Ministry of Social Development and Fight against Hunger (MDS - CCT) and Ministry of Agrarian Development and Ministry of Finance (rural credit)
<i>Juntos plus Sierra Sur</i>	Peru	CCT (bimonthly cash transfers)	Natural resources management and access to market components. Including productive technical assistance for producers associations and cooperatives hired by the associations with resources from the project	Overlapping programmes	No coordination (overlapping)	Extremely poor families in rural areas.	737 144 families (<i>Juntos</i> in 2015)	Ministry of Social Inclusion and Development (<i>Juntos</i>) and Ministry of Agriculture and Irrigation	Ministry of Social Inclusion and Development (<i>Juntos</i>) and Ministry of Agriculture and Irrigation
<i>Juntos plus Haku Wiñay</i>	Peru	CCT (bimonthly cash transfers)	Development of productive and entrepreneurial skills to help households strengthen their income generation and diversification strategies. Four components: 1) family production systems, designed to help households adopt simple and low-cost technological innovations and to enhance food security. The programme provides productive assets, technical assistance and training; 2) healthy housing, aimed at promoting healthy daily living practices by implementing safe kitchens and fostering access to safe water and efficient solid waste management; 3) inclusive rural	Overlapping programmes	Some level of coordination, particularly, for component 4, financial literacy, which is exclusively for <i>Juntos</i> beneficiaries.	Extremely poor families in rural areas	737 144 families (<i>Juntos</i> in 2015) <i>Haku Wiñay</i> : The project was first piloted in two districts, Vinchos and Chuschi, and benefited 930 family farmers. It was later expanded and by March 2014 had reached 91 124 hh across 732 rural villages.	Ministry of Social Inclusion and Development (<i>Juntos</i>) – including FONCODES.	Ministry of Social Inclusion and Development (<i>Juntos</i>) – including FONCODES.

			businesses, designed to promote business initiatives and entrepreneurship by funding and organizing grant competitions and helping those interested in participating to organize and prepare business plans to pursue those grants. (This component encourages participants to associate with others to approach local markets more efficiently – the grants fund technical assistance and training); and 4) financial education, involving training and assistance to promote formal savings, especially among those who receive cash transfers from <i>Juntos</i> .						
<i>Prospera/Oportunidades</i> plus PROCAMPO	Mexico	CCT	Financial compensation for the North American Free Trade Agreement	Overlapping programmes	No coordination (overlapping)	Poor families with children (CCT)	About 6 million families (Prospera in 2015)	SEDESOL (<i>Prospera/Oportunidades</i>) and ASERCA for PROCAMPO	SEDESOL (<i>Prospera/Oportunidades</i>) and ASERCA for PROCAMPO -
Comunidades Solidarias Rurales plus rural development interventions	El Salvador	CCT	Extension services to improve production, homestead gardens, natural resources management and access to markets	Overlapping programmes	No coordination (overlapping)	Poor families with children (CCT) and the rural poor	80 222 in 2013 CSR (max 105 824 in 2009)	FISDL (CSR) and Ministry of Agriculture and Livestock (RD)	FISDL (CSR) and Ministry of Agriculture and Livestock (RD)
<i>Ingreso Etico Familia</i> plus Productive Support from FOSIS programmes.	Chile	CCT	Business support (credit and training)	Complementary programme (priority access)	Coordinated but low coverage	Extreme poor families (IEF)	179 539 households in 2015	MDS and FOSIS	MDS and FOSIS
<i>Familias en Acción</i> plus <i>Oportunidades Rurales</i>	Colombia	CCT	Financial support for farmer's organizations to purchase extension services	Complementary programme (priority access)	Designed to be integrated (incentive-based). But overlap (40 percent) was low due to fraud	Extreme poor families (FA) and farmers organization with beneficiary of <i>Familias en Acción</i>	2,561,059 households in 2015 (<i>Más Familias en Acción</i>)	Social Prosperity Department (FA) and Ministry of Agriculture and Livestock (OR)	Presidency of the Republic (FA) and Ministry of Agriculture (OR)
Child Grant Programme plus Linking Food Security and Social Protection	Lesotho	UCT	Homestead gardening (seeds) and food preservation training and nutrition training	Complementary programme	Fully coordinated	Extreme poor families with children	20 000 families	Ministry of Social Development (CGP) and	Ministry of Social Development (CGP)

FAO,
Catholic
Relief
Services
(CRS) and the
Rural Self-
Help
Development
Association
(RSDA) for
LFSSP

Table A.3 Evaluation Report/Papers main features

Evaluation paper/report	Country	Interventions	Survey and data	Methodology	Control group	Outcomes
Ahmed <i>et al.</i> (2009)	Bangladesh	CFPR (Phase 1)	<p><u>Baseline survey</u>: June to August 2002 (before the intervention was implemented). The sample size was 5 626 households of which 2 633 were treated and 2 993 were control. <u>Follow-up survey</u>: In 2005 (one year after the end of the intervention), about 5 228 households were resurveyed, including 278 new households. Treated group: 2 474 and control group: 2 754.</p> <p>A subsample of households replied to a food consumption module in 2002 (400 hh) and later in 2004 (373 hh) and 2006 (365 hh). The 2006 survey was used to assess sustainability of impacts two years after programme had finished. Sample drawn from three districts (Rangpur, Kurigram and Nilphamari) in Northern Bangladesh that entered the programme in 2002. Programme was later expanded to 15 districts (See Table 4).</p>	<p><u>Quasi-experimental</u>: propensity score matching with difference-in-differences. Matching done using local linear regression method with a tricube kernel (using Stata's psmatch2). Standard errors of the impact estimates are calculated by bootstrap using 500 replications for each estimate.</p> <p><u>Rationale</u>: treated group was poorer than control group.</p>	Non-selected ultra-poor – non-compliance with some of the programme eligibility criteria (inclusion, exclusion criteria) despite being ranked as ultra-poor	<p><u>Assets</u>: own cultivable land (in decimal); rented-in land (in decimal); # cows; # goats; # poultry.</p> <p><u>Savings</u>: % cash savings</p> <p><u>Education</u>: net primary school enrolment (6-11 years old)</p> <p><u>Food security</u>: perceived food deficit (always, some, none, surplus).</p> <p><u>Health and sanitation</u>: hh has a sanitary latrine</p> <p><u>Clothing ownership</u>: # saris; % winter clothes; % shoes for all hh members:</p> <p><u>Food consumption</u>: monthly per capita food expenditure (in BDT); energy consumption (kcal per person per day)</p>
<p>Erman, Robano and Smith (2014) and Emran, Robano and Smith (2009).</p> <p>Same authors and almost the same paper. Earlier working paper version has a</p>	Bangladesh	CFPR (Phase 1)	Same data as in Ahmed <i>et al.</i> (2009). The final matched panel used in analysis contained 5 067 households.	<p><u>Quasi-experimental</u>: Four methods were used: simple, difference-in-differences, standard propensity score matching with difference-in-differences, MB-IPW (inverse-probability weighting – regression framework) and Klein-Vella Heteroskedasticity-based Identification.</p>	Two comparison groups were used: the non-selected ultra poor (as in most studies of the CFPR 1) and eligible households (matching all requirements) that did not received the programme. Unlike the non-selected, the	<p><u>Assets</u>: total land owned (in decimal); % own homestead land; # cows; # goats; # poultry; # fishing nets; # big trees; # rickshaw/vans; # bicycles; # chairs/tables; # radios/tvs; # quilts/blankets; # tube-wells</p> <p><u>Income</u>: per capita income (in BDT)</p> <p><u>Savings</u>: % cash savings</p> <p><u>Food security</u>: food availability (perceived food deficit); % meals twice a day.</p> <p><u>Clothing</u>: # saris; # of lungis; % shoes for all hh members.</p>

<p>quantile analysis of impacts on income.</p>					<p>group of eligible but not receiving the programme is more similar to the treated group.</p>	<p><u>Female empowerment</u>: ratio #saris/# lungis; % girls working; % girls that can read and write a letter; years of schooling of female children <u>Housing condition</u>: % roof made of tin <u>Health</u>: health status (subjective); health improvement (compared to last year - subjective) <u>Child labour</u>: % of children working.</p>
<p>Das and Misha (2010) and Raza, Das and Misha (2012)</p> <p>Similar authors, different methodologies. Das and Misha (2010) looked at more outcomes.</p>	<p>Bangladesh</p>	<p>CFPR (Phase 1)</p>	<p>Panel data from three rounds of survey (2002, 2005 and 2008). The data for 2002 and 2005 is the same as used in Ahmed <i>et al.</i> (2009). <u>Follow up survey in 2008</u> (four years after intervention finished for the treated group) – 4 549 hh were resurveyed: 2 251 treated and 2 298 control. <u>Attrition rate</u>: 7 percent in 2005-2002 and 19 percent in 2008-2002. Data on food expenditure used in Ahmed <i>et al.</i> (2009) for 2002-2004-2006 is reexamined in these two papers.</p>	<p><u>Quasi-experimental</u>:</p> <p><u>Das and Misha (2010)</u>: difference-in-differences in a multivariate regression analysis.</p> <p><u>Raza, Das and Misha (2012)</u>: propensity score matching with difference-in-differences – similar procedure as in Ahmed <i>et al.</i> (2009).</p>	<p>Non-selected ultrapoor – non-compliance with some of the programme eligibility criteria despite being ranked as ultra-poor</p>	<p><u>Income and assets</u>: per capita real income (in BDT); own homestead land (in decimal); own cultivable land (in decimal); rented land (in decimal); # cows; # goats; #poultry; #big trees; # radios; # beds; # rickshaws/vans; market value of the house (in BDT). <u>Credit</u>: outstanding credit from formal source (in BDT); outstanding credit from formal source (in BDT) <u>Food consumption</u>: per capita food expenditure (in BDT); per capita calorie intake (per day) <i>For Das and Misha (2010) only:</i> <u>Primary occupation of the working age</u> (15-60 years) men and women separately: % farm self-employment; % day labour; % non-farm self-employment; % begging; % work as servant; % student; % unemployed. <u>Assets</u>: # of chair (besides all others indicators reported in Raza, Das and Misha (2012)). <u>Savings</u>: % cash savings <u>Credit</u>: outstanding loans (% and BDT) outstanding lending (% and BDT) <u>Social asset/capital</u>: % got invitation from non-relative neighbour; % helped by non-relative neighbour; % anybody taken advice; % believed that someone would lease land. <u>Health</u>: % prevalence of illness; % sick members paid for treatment; medical expenditure (in BDT); % sick members who lost working days due to illness; working days lost.</p>

						<p><u>Education</u>: Net primary enrollment and net secondary enrollment rate for boys and girls separately.</p> <p><u>Housing conditions</u>: % roof made of tin; % own house; type of house;</p> <p><u>Water and sanitation</u>: % drink water from tube-well; % use water from tube-well to cook; % have sanitary latrine; % all hh member use saldals while in toilet.</p> <p><u>Food security</u>: % perceived food deficit (always, some, nor deficit nor surplus, surplus).</p> <p><u>Crisis incidence and expenditures to cope with it</u>: house damaged; illness; marriage; death of livestock; death of hh member; death of hen.</p> <p><u>Graduation</u>: # of indicators satisfied.</p>
Krishna, Poghosyan and Das (2010)	Bangladesh	CFPR (Phase 1)	Panel data from three rounds of survey (2002, 2005 and 2008). The data for 2002, 2005 and 2008 is the same as used in Das and Misha (2010) and Raza, Das and Misha (2012) – see above. Reported <u>attrition rate</u> : 6 percent in 2005-2002 and 14 percent in 2008-2005. Data on food expenditure used in Ahmed <i>et al.</i> (2009) for 2002-2004-2006 is reexamined in these two papers.	<u>Quasi-experimental</u> : difference-in-differences in a multivariate regression analysis.	Non-selected ultrapoor – non-compliance with some of the programme eligibility criteria despite being ranked as ultra-poor	<p><u>Asset</u>: asset index (excluding land ownership); owned land (decimals); cultivable land (decimals).</p> <p><u>Income</u>: per capita income</p> <p><u>Savings</u>: % cash savings.</p> <p><u>Health</u>: self-reported health status and health improvements of household heads.</p>
Misha <i>et al.</i> (2014)	Bangladesh	CFPR (Phase 1)	Same dataset as previous studies but added a final wave in 2011 in which 4 144 hh of the original sample were reinterviewed (7 years after the treated group received the treatment). Attrition rate: 28 percent - but none of the baseline characteristics were good predictors of the attrition later in the panel.	<p><u>Quasi-experimental</u>: difference-in-differences with propensity score matching (DID-IPW). Robustness checks use non-parametric PSM (5-NN) combined with DID.</p> <p><u>Rationale</u>: authors noted that the inclusion and exclusion criteria are not implemented very strictly so that regression discontinuity analysis cannot be applied. Although three quarters of the participants fall within the poorest quartile. Emran, Robano and Smith (2014) also confirm there are a considerable number of</p>	Non-selected ultrapoor – non-compliance with some of the programme eligibility criteria despite being ranked as ultra-poor	<p><u>Assets</u>: % own homestead land; % owns any cultivable land; # cows; #goats; # poultry; # big trees; % rickshaw/vans; # radios/tvs;</p> <p><u>Income</u>: annual per capita income (in BDT)</p> <p><u>Food security</u>: % all member eat at least 2 meals per day.</p> <p><u>Savings</u>: % cash savings</p> <p><u>Credit</u>: % formal loans; % informal loans</p> <p><u>Occupation</u>: % entrepreneur; % begging or maid; % day labourer; % employed</p> <p><u>Housing</u>: % roof made of tin</p> <p><u>Social capital</u>: % invited to non-relative home</p>

				households who met all the selection criteria but were excluded from the program and vice-versa.		
Raza and Ara (2012)	Bangladesh	CFPR (Phase 2)	A baseline survey was carried out from June to August in 2007 in the 50 branches in 5 districts covered by the programme (STUP2 package) in 2007. <u>Baseline survey</u> : 3 685 hhs (778 treated and 2 907 control). <u>Follow-up survey</u> conducted in 2009: 3 387 hh (693 treated and 2 783 control). The total attrition rate: 8.08 percent. For the analysis of food security indicators, a smaller subsample consisting of a total of 2739 hh was used.	<u>Quasi-experimental</u> : propensity score matching with difference-in-differences. Nearest Neighbour matching technique using pscore Stata command.	Non-selected ultra-poor – non-compliance with some of the programme eligibility criteria (inclusion, exclusion criteria) despite being ranked as ultra-poor.	<u>Assets</u> : own cultivable land (in decimal); homestead land (in decimal); rented land (in decimal); # and value in BDT of cows, poultry, goat, rickshaw/van; big trees; # of radio, tv, fan, mobile phone, bicycle, chair, table, bed, mosquito net; value of house; cost of housing structural improvement <u>Income</u> : per capita income (*only reported in text and figure is incomplete; results missing in Tables) <u>Savings</u> : savings at home; at bank/PO; at BRAC; with NGOs and total savings (in BDT) <u>Occupation</u> (15-65 years): hours per year spent on: agricultural self-employment; day labourer; household chores; housemaid/household aid; others (salary, students, begging, unemployed) determined separately for men and women.
Bandiera <i>et al.</i> (2013)	Bangladesh	CFPR (Phase 2) (CGAP/Ford Foundation)	The evaluation sample covered 1 409 rural communities located in the 13 poorest districts of Bangladesh, half of which were treated in 2007 and the rest kept as controls until 2011. There were three surveys: baseline (2007), midline (2009) and endline (2011). One or two subdistricts (upazilas) from each district were randomly selected. In each of the 20 subdistricts one BRAC office was randomly assigned to treatment (to receive the program in 2007) and another to control (to receive the program in 2011). Using BRAC branches rather than communities as the unit of randomization minimized the risk of contamination. At baseline, the evaluation sample contained: 7 953 eligible women in 1 409 communities in 40 BRAC branches and an additional 19 012 households from all other wealth classes – including poor but non-eligible and a 10 percent sample of higher wealth classes.	<u>Experimental</u> : Randomized control trial (experimental evaluation) with difference-in-differences. Unit of randomization: BRAC branches. Only balanced sample: 6 732 eligible beneficiaries and 16 297 households from other wealth classes. Subdistricts (upazilas) were used for stratification, then fixed effects for subdistricts were used. As there are differences in baseline for occupational allocation between treated and control groups the analysis also controlled for that. Quantile treatment effect is also estimated. Cost-benefit analysis	Eligible hh whose BRAC office was randomized out and will only start the programme 4 years later.	<u>Assets</u> : % rent land for cultivation; %own land for cultivation; # cows; #poultry; # goat, value of all livestock (in BDT); <u>Savings</u> : household total savings (in BDT) <u>Expenditures</u> : per capita non-food expenditure and per capita food expenditure (adult equivalent). <u>Food security</u> : % hh in which all member eat 2 meals a day. <u>Occupation choice (eligible women only)</u> : % specialized in wage employment; % specialized in self-employment; % engaged in both occupations; hours in wage employment; hours in self-employment; <u>Seasonality and earnings</u> : share of economic activities held regularly; share of activities with seasonal earnings; total annual earnings (in BDT); earnings per hour (in BDT). <u>Well-being</u> : % satisfied with life; % experience anxiety.

Bandiera <i>et al.</i> (2016)	Bangladesh	CFPR (Phase 2) (CGAP/Ford Foundation)	Same as above	<p><u>Experimental:</u> Randomized control trial (experimental evaluation) with difference-in-differences. Unit of randomization: BRAC branches. Only balanced sample: 6 732 eligible beneficiaries and 16 297 households from other wealth classes. Subdistricts (upazilas) were used for stratification, then fixed effects for subdistricts were used. As there are differences in the baseline for occupational allocation between treated and control groups, the analysis also controls for that. Quantile treatment effect was also estimated. Spillover effect on non-eligible. Cost-benefit analysis of 7-year effect using treated controls (quantile treatment effect)</p>	Eligible hh whose BRAC office was randomized out and will only start the programme after four years.	<p><u>Assets:</u> value of household assets – durable goods (in BDT); asset index <u>Productive assets:</u> value of cows, value of goats, rents land, owns land, value of land owned, value of other business assets. <u>Savings and financial assets:</u> household cash savings (in BDT), household receives loans, household gives loans, financial inclusion index. <u>Poverty and consumption:</u> below poverty line (%), consumption expenditure (per adult equivalent – in BDT), total per capita expenditure (standardized) <u>Food security:</u> % hh in which all member all 2 meals a day, food security index. <u>Occupation:</u> hours and days by livestock, agriculture, maid, total; and total time spent working by main woman (standardized), total time spend by both respondents pooled (standardized) <u>Earnings:</u> earnings in livestock, wage and earning in agriculture, wage and earning as maid, earning in all 3 activities (in BDT); income and revenue index. <u>Health:</u> physical health index, mental health index. <u>Participation:</u> political awareness index, women’s empowerment index.</p>
Raza and Van de Poel (2016)	Bangladesh	CFPR (Phase 2) (CGAP/Ford Foundation)	Same as above	Same as above	Same as above	<p><u>Nutrition:</u> a) under 5 years: weight for height (z-scores), wasting%, height for age (z-score), stunting %, weight for age (z-score), and underweight %. b) 6-19 years: body mass index (in SD), thinness (<2SD) %, height for age (z-score), stunting %, weight for age (z-score), underweight %, c) 19 years or more: body mass index (absolute), moderate thinness (<18.5) %; severe thinness (<17).</p>
Hernandez <i>et al.</i> (2015)	Bangladesh	ER+	<p><u>Baseline survey:</u> March 2013 and <u>follow-up survey:</u> March 2014. Out of the 14 upazilas included in the survey, seven were selected as participants in the ER+ program, and seven were selected as control 1, since ER participants in those upazilas were not going to be part of the ER+ programme. Survey participants comprised three groups: a) treated: ER+</p>	<p><u>Quasi-experimental:</u> Difference-in-differences using panel data modelling. For continuous outcome variables: fixed effects and random effects models. For binary response outcome variables: probit models</p>	Two control groups were used: a) control 1 – just 2 years of ER; b) control 1 plus control 2 (non ER beneficiaries)	<p><u>Assets:</u> total value of assets; value of durable assets; value of non-farm assets; value of farm assets; rice area (decimal); non-rice area (decimal); rice (kg); non-rice (kg). <u>Expenditure:</u> per capita food expenditure; total per capita expenditure;</p>

			<p>participants; b) control 1: ER participants, but not ER+; c) non-ER participants who are similar to participants. A three-stage stratified sampling procedure was followed: (1) selection of upazilas, (2) selection of primary sampling units (PSUs) in each upazila, and (3) selection of households in each PSU. The samples were drawn in two ways: (1) selected ER+ and control 1 sample from a list of ER programme participants in the 14 selected upazilas; and (2) selected control 2 sample through a rapid enumeration of non-ER participants in the same locations. <u>Baseline</u> - Sample size: 2 397 hh (800 ER+, 797 ER households as control 1, and 800 non-ER households as control 2) and <u>Follow up survey</u> - 2 337 households (786 ER+, 781 control 1, and 770 control 2). Attrition: 2.5 percent.</p>	with population-averaged effects and random effects models.		<p><u>Savings</u>: total amount of savings. % household with savings; % hh savings for buying assets and future investments. <u>Occupation</u>: % hh has non-agricultural enterprise</p>
BDI (2012)	Bangladesh	Food Security for the Ultra Poor (FSUP)	<p>Three rounds of survey. <u>Baseline</u>: February 2010 (before programme started, but after selection of participants); <u>Midline</u>: February/March 2011; <u>endline</u>: May/June 2012. At the upazila level, all 1 260 ultra-poor participating households interviewed were randomly selected from the first cycle's 5 000 households and compared with 647 households belonging to the control group (not-participating villages, but a comparison group selected using same criteria). During the 2012 survey, 1 190 participating households and 647 non-participating households were surveyed. Attrition rate: 3.7 percent.</p>	<p><u>Quasi-experimental</u>: simple difference-in-differences.</p>	<p>Comparison group was selected using the same set of criteria that was used to select project participants. A census was carried out in randomly selected non-participating villages to identify households/ individuals that met the project's inclusion and exclusion criteria. The list of admissible households/ individuals was then used to randomly select non-participants (control group).</p>	<p><u>Income</u>: hh total monthly income (average and median); hh per capita monthly income; hh total monthly expenditure; # of income sources <u>Assets</u>: asset score; productive asset score; non-productive asset score; value of assets; <u>Women</u> : % women with income; share of income from women <u>Savings</u>: % women with savings; value of women's savings (BDT); <u>Credit</u>: % women with loans; value of loans (BDT). <u>Food security</u>: # of meals per day; % women having 3 full meals a day; food consumption score; number of food types consumed in last week; per capita food expenditure (BDT); share of food expenditure in total expenditure; % of hh with borderline or poor food consumption levels (based on FCS) <u>Disaster and loss</u>: % women facing loss due to disaster; value of the loss (BDT); coping strategy index score <u>Health</u>: % hh with a member sick in past month; % hh that have lost a member due to illness; health expenditure last year (those with ill member); cost of death <u>Sanitation</u>: % hh with a latrine; % women who know about sanitary latrines; % male member using latrine; % female members</p>

						<p>using latrine; % child using latrine; awareness and behaviour index value.</p> <p><u>Access to services</u>: knowledge score – public services, private services, public business services. Access score – public services, private services, public business services.</p> <p><u>Empowerment</u>: % women comfortable going to: a) upazila market; b) upazila health centre; c) other health centres; d) upazila livestock office</p> <p><u>Poverty</u>: % hh with more than US\$1.25 a day; % hh above national poverty line; % hh above graduation threshold; % hh with acceptable level of food consumption</p>
HTPSE Limited (2011)	Bangladesh	<p>CLP (Phase 1)</p> <p>This programme had a second phase but its evaluation was not included due to lack of robust methodology.</p>	<p>Primary data collection involved a mix of formal surveys and informal interviews with groups and individual core and non-core beneficiaries (men and women). Income and expenditure analysis was based on time-series data collected by the CLP team (i.e. secondary data) across a subsample of core beneficiary households from all four phases of the Asset Transfer Programme (ATP 1, ATP 2, ATP 3 and ATP 4). It covered the reference period February 2009-January 2010. The last phase (ATP 4) was used as the counterfactual group whose incomes were matched with those from earlier phases. The ATP 2 cohort was the focus of the treated group as during ATP 1 the programme was not mature enough (pilot). Sample size of monthly income/expenditure monitoring survey (matched cases): ATP 1 vs ATP 4: 103; ATP 2 vs ATP 4: 154; ATP 3 vs ATP 4 :326.</p> <p>The Knowledge, Attitude and Practices (KAP) survey for the impact assessment was in effect a repeat of the IML KAP survey carried out in 2008 that provided the sole reference on social dimensions of impact among CBHs collected during CLP-1. Sample size: 105 in 2008 – 82 were re-interviewed for the impact assessment.</p>	<p><u>Quasi experimental</u>: propensity score matching was used to match ATP 4 sample (control group) with treated cohorts – ATP 1, 2 and 3.</p>	<p>Comparison group: younger cohorts - ATP 4.</p>	<p><u>Income</u>: per capita monthly income;</p> <p><u>Poverty</u>: % above poverty line</p> <p><u>Assets</u>: asset value total, productive and non-productive.</p> <p><u>Profitability and sustainability of enterprises</u>: poultry, homestead gardening, milk production</p> <p><u>Credit</u>: loans</p> <p><u>Risk management</u>: use of plinths</p> <p><u>Food security</u>: food availability</p> <p><u>Water and sanitation</u>: use of tubewells and latrines</p> <p><u>Women</u>: attitude towards family planning</p> <p><u>Women's empowerment</u>: interaction with other community members; decision power on family planning, health, expenditures, loans, land rights, early marriage, dowry price.</p> <p><u>Children</u>: birth registration</p> <p><u>Access to services</u></p>
Smith <i>et al.</i> (2013)	Bangladesh	SHOUHARDO I	<p>Baseline survey (N=3 200 in February 2006 applied to households with children 6–24 months old, the target group for MCHN interventions. Two <u>endline surveys</u> were conducted. The first (N=3 200), conducted in August 2009, was administered</p>	<p><u>Quasi-experimental</u>: difference-in-differences and propensity score matching</p>	<p>National data and regional data (neighboring region/areas)</p>	<p><u>Nutrition</u>: prevalence of stunting for children under 5.</p>

			to households with children 48–59 months old in the same villages as the baseline to help investigate whether the project had long-term nutritional benefits. The surveyed children used in the analysis would have been 6–18 months at the time of the baseline survey as those between 18 and 24 would be older than 59 months in the first endline survey. Only nutritional data were collected. The second endline survey (N=3 356) was conducted in November 2009 from a newly-drawn random sample of project households with children 6–24 months old. In addition to nutritional data, data were collected on a large number of household characteristics and outcomes as well as on the interventions. All surveys were conducted using a two-stage, stratified random sampling design, where the four project areas were the strata and villages the primary sampling units.			
Banerjee <i>et al.</i> (2015)	Ethiopia	CGAP/Ford Foundation Graduation into Sustainable Livelihoods project (evaluated by IPA)	Sample size: 925. Treated group: 458hh – 100 percent take-up rate. No spillover design or multiple treatment arm. <u>Surveys</u> : baseline (6 months before asset transfers), midline, <u>endline 1</u> (21 months after asset transfer) and <u>endline 2</u> (13 months after endline 1)	<u>Experimental</u> : randomization at household level and difference-in-differences. Intent-to-treat effects (ITT).	Similar households in same tabia.	<u>Consumption</u> : per capita consumption; per capita food consumption; per capita non-food consumption; per capita durable good consumption <u>Food security</u> : food security index; household gets enough food; no adults skipped a meal; no adult went a whole day without food; no children skipped a meal; everyone gets two meals every day. <u>Assets</u> : total asset index; total asset value; productive asset index; productive asset value; household asset index; household asset value <u>Finance</u> : total amount borrowed; amount borrowed formal; amount borrowed informal; total savings; amount deposited in savings <u>Time use</u> : total time spent working; time spent working in agriculture; time spent working in livestock; time spent working in microenterprise; time spent working in paid labour. <u>Income and revenues</u> : livestock revenue; agricultural income; microenterprise income; paid labour income; perception of economic status.

						<p><u>Physical health</u>: physical health index; has not missed work due to illness; activities of daily living score; perception of health status</p> <p><u>Mental health</u>: mental health index; perception of status in life; lack of stress index; has not experienced worry</p> <p><u>Political involvement</u>: political index; voted in last election; member of political party; attended community meeting; met with local leader</p> <p><u>Women's decision making</u>: women's decision making index; major say in food expenditures; major say in education expenditures; major say in health expenditures; major say in home improvements expenditures; major say in business management</p>
Banerjee <i>et al.</i> (2015)	Pakistan	CGAP/Ford Foundation Graduation into Sustainable Livelihoods project (evaluated by IPA)	Sample size: 1 299 (660 treated – 100 percent take-up rate). No spillover design or multiple treatment arm. <u>Surveys</u> : baseline (11 months before asset transfers), midline, endline1 (25 months after asset transfer), and endline 2 (7 months after endline 1)	<u>Experimental</u> : randomization at household level and difference-in-differences. Intent-to-treat effects (ITT).	Similar households in same village	Same as above
Banerjee <i>et al.</i> (2015)	India	CGAP/Ford Foundation Graduation into Sustainable Livelihoods project (evaluated by IPA)	Sample size: 978 (treated 512 – take-up rate: 52 percent - just 266 actually accepted treatment). No spillover design or multiple treatment arm. <u>Surveys</u> : baseline (0 months before asset transfers), midline, endline1 (23 months after asset transfer), and endline 2 (15 months after endline 1)	<u>Experimental</u> : randomization at household level and difference-in-differences. Intent-to-treat effects (ITT).	Similar household in same village	Same as above
Banerjee <i>et al.</i> (2015)	Honduras	CGAP/Ford Foundation Graduation into Sustainable Livelihoods project (evaluated by IPA)	Sample size: 2 403 (800 treated – 100 percent take-up rate). Spillover design and no multiple treatment arm. <u>Surveys</u> : baseline (15 months before asset transfers), midline, endline1 (25 months after asset transfer), and endline 2 (13 months after endline 1)	<u>Experimental</u> : randomization at village followed by randomization at household level and difference-in-differences. Intent-to-treat effects (ITT).	Similar households in treated villages and similar households in untreated villages (randomized out) – allowing spillover assessment.	Same as above
Banerjee <i>et al.</i> (2015)	Peru	CGAP/Ford Foundation Graduation into Sustainable	Sample size: 2 284 (785 treated – 100 percent take-up rate). Spillover design and no multiple treatment arm. <u>Surveys</u> : baseline (7 months before asset	<u>Experimental</u> : randomization at village followed by randomization at household level and difference-in-differences.	Similar households in treated villages and similar households in untreated villages	Same as above

		Livelihoods project (evaluated by IPA)	transfers), midline, endline1 (29 months after asset transfer), and endline 2 (12 months after endline 1)	Intent-to-treat effects (ITT).	(randomized out) – allowing spillover assessment.	
Banerjee <i>et al.</i> (2015)	Ghana	CGAP/Ford Foundation Graduation into Sustainable Livelihoods project (evaluated by IPA)	Sample size: 2 606 (666 treated – 100 percent take-up rate). Spillover design and multiple treatment arm: savings, no savings, matched savings (incentivised), unmatched savings (non-incentivised), Asset only. <u>Surveys</u> : baseline (10 months before asset transfers), midline, endline1 (18 months after asset transfer), and endline 2 (12 months after endline 1)	<u>Experimental</u> : randomization at village level followed by randomization at household level and difference-in-differences. Intent-to-treat effects (ITT).	Similar households in treated villages and similar households in untreated villages (randomized out) – allowing spillover assessment.	Same as above
Bauchet, Morduch and Ravi (2015)	India	SKS plus UPP (CGAP/Ford Foundation)	Sample size: 3 484 individuals, living in 1 063 households across 198 villages in Medak District, in three waves of surveys between 2007 and 2010. <u>Baseline</u> : August to October, 2007. After baseline 102 villages were randomly assigned to treatment and 95 to control group. Out of the 575 household assigned to the treatment group, 70 percent (404 households) participated. The other 30 percent (171 households) is counted as part of the treatment group in the analysis (yielding intent-to-treat estimates). The most common reasons for not participating in the program were lack of interest in taking asset (52 percent), migration (33 percent) and having access to microfinance loans (11 percent). <u>Midline survey</u> : April/September 2009. <u>Endline survey</u> : October/November 2010: 1 011 households. Attrition: 5 percent. But being assigned to the treatment group does not significantly predict long-term attrition. Baseline data seems to have errors: consumption too large and implausible compared with income data and other sources. Low take-up and high drop-out rate – 70 percent take-up rate and only 43 percent of beneficiaries still kept the asset at endline – animals were sold to pay debts.	<u>Experimental</u> : randomization at village difference-in-differences. Intent-to-treat effects (ITT). As some hh level variable did not balance at baseline they are included in the regression analysis.	Treated group: similar household in control villages.	<u>Asset accumulation</u> : % own house; # acres of land; non-agriculture asset index; agriculture asset index; % hh own livestock; % hh own poultry; % hh own plow. <u>Income</u> : monthly per capita income: total; agriculture self-employment; agricultural labour; non-agricultural labour; salaried employment; livestock; other sources. <u>Time use</u> : productive time – agricultural labour; tending animals; tending animals if owns animals; leisure time; time doing chores; <u>Expenditures</u> : monthly per capita expenditure: total, food, non-food (energy, tobacco/alcohol, medical, education, others) <u>Food security</u> : adults cut the size of meals or skip them; adults did not eat for a whole day; children under 16 cut the size of meals or skipped them; all households have enough food every day, all year; everyone in the household eats at least two meals per day. <u>Savings</u> : % outstanding loans; # of loans outstanding; value of loans outstanding; % household saves; total savings balance; sources of loan <u>Health</u> : whether physical health improved in the last year; the number of days that household members were unable to work due to illness; whether any member went to the doctor or hospital in the last year. <u>Access to safety nets</u> : work from Employment Guarantee Schemes, pension, government housing, government assets, government

						training, subsidized loans; goods from PDS cards; % has Below the Poverty Line card.
Blattman <i>et al.</i> (2014)	Uganda	No income/consumption support	<p>Community meetings were held to describe the programme, during which 20 of the most marginalized villagers were listed, 75 percent of them were women ages 14 to 30. From February to April 2009, AVSI staff interviewed each nominee and selected 10 to 17 clients per village, excluding relatives of leaders and the least poor. After a baseline survey of all 1 800 candidates between April and June 2009, village names were drawn from a basket without replacement until all were assigned to either immediate treatment of training, cash and follow-up (Phase 1) – 896 people – or the waitlist (Phase 2) – 904 people, that would receive the programme in roughly 20 months. In addition, 30 of the 60 Phase 1 villages were randomized to receive group dynamics training (self-help groups). In the first follow-up survey: 861 from Phase 1 were interviewed and 870 from Phase 2 (October 2010 – February 2011). To distinguish the effects of supervision and accountability from advice, the 900 Phase 2 clients all received training and cash (in a single tranche) but were randomly assigned to a) no return to visit them in future – 318 people; b) follow up once or twice to confirm implementation of the business plan but not provide substantive advice – 300 people (Final follow up: 868 out of 904 of Phase 2 were reinterviewed in 06-08/2012); or c) follow up to five times – 286 people – to provide accountability but also substantive advice on business management and household bargaining. The objective was to evaluate the marginal impact of the highest cost component (coaching).</p>	<p><u>Experimental</u>: randomizing villages to select the group for immediate versus delayed treatment 20 months later. Partial factorial design to evaluate the marginal effects of several programme components. Among the immediately treated villages, a group was randomized to receive group dynamics training. In the second phase, when the delayed treatment group received the programme, people were randomized into an unsupervised grant, one to two supervisory visits (to provide accountability to invest), or multiple visits for both supervision and substantive business advice. None of the other components could not be randomized, thus the evaluation could not separate the effects of cash from basic training and framing. ITT estimates.</p>	<p>Control group phase 1: randomized out villages. Phase 2 – randomized into different types of ‘treatment’</p> <p>Results were reported separately for women and men.</p>	<p><u>Occupation</u>: report positive hours in petty trading; any non-farm self-employment; started enterprise since baseline; average employment hours per week (agricultural and non-agricultural); average hours of chores per week; no employment hours in past month <u>Income</u>: index of income measures (z-score); monthly cash earnings (in UGX); Durable asset (z-score); non-durable consumption (z-score); total earnings from last harvest. <u>Savings</u>: member of a savings group; savings (in UGX) <u>Credit</u>: perceived access to credit (z-score) Access to services: access to business advice (z-score) <u>Self-reported autonomy and empowerment</u>: divorced since baseline; autonomy/influence on purchases (z-score); can decide how to use pocket money; can use earnings to buy clothes without asking permission; have a say in purchase of a large asset; experienced any physical or emotional abuse in the past eight months (z-core); threatened harm; humiliated in front of others; beaten; kicked or hit; cannot refuse sex; marital control (z-score), partner tries to limit contact outside the home; requires permission to transact in the market; partner has refused money for household needs; have to give earnings to partners; partner takes money against your will; partners accuses of you of being unfaithful; relationship quality (z-score); self-rating of relationship health; feel partner treats you well; feel free to express your opinion. <u>Expenditures</u>: total weekly expenditures (UGX); proportion of total expenditures on health and education spent on woman and girls; proportion of children in school (biological and non-biological) <u>Social engagement</u>: quality of family relationships; social support received; community participation; community leadership activities.</p>

						<u>Grant use and group activity</u> : effect of programme and group dynamics.
Prennushi and Gupta (2014)	India	Indira Kranti Patham (heterogeneous effect measured for NREGA beneficiaries)	Analysis based on a panel data for 4 250 households (balanced sample - there was a 6 percent attrition rate) from two rounds of a survey conducted in 2004 and 2008 in five districts. In each village, ten households were randomly selected from a list stratified by poverty category – poorest, poor, not-so-poor, and not poor – as determined through a survey- and community-based ‘participatory identification of the poor’ exercise conducted in 2001.	<u>Quasi-experimental</u> : propensity score matching was used to construct control groups. Difference-in-differences used to estimate the impact on outcomes. Three treated groups: early joiners (2004), mid-joiners (2004-2006), late joiners (2007-2008). One comparison group: never joined. Matching was done separately for each category of poor.	Control groups – identified from the survey using PSM.	<u>Savings</u> : total savings (in Rs); <u>Credit</u> : total loans (male and female) in Rs. <u>Assets</u> : land owned (acres); value of land owned (Rs); land cultivated (acres); value of land cultivated (acres), # livestock; value of livestock (Rs); Farm assets (Rs); non-farm assets (Rs); durable goods (Rs); <u>Expenditure</u> : monthly per capita expenditure (total, food, non-food, health, education). <u>Education</u> : share of school-age children that have ever attended school; share of school-age girls that have ever attended school; share of school-age children currently attending school. <u>Access to government programmes</u> : National Rural Employment Guarantee Schemes - NREGS; Midday meal; hostels; housing; ICDS (integrated child development services) <u>Health</u> : assisted delivery; immunization cards, breastfeeding; knowledge of diarrhoea treatments; modern treatment methods; family planning visit. <u>Empowerment</u> : % set money aside for personal use; % not afraid to disagree with their husbands; % can go out alone without permission; % participate in village meetings always or frequently;
IRC (2012)	Vietnam	P135-II	The Committee for Ethnic Minorities (CEM) conducted a baseline survey in 2007 (BLS 2007) and an endline survey in 2012 (ELS 2012). From the list of 1 632 communes in P135-II provided by CEM, 266 treatment communes were randomly drawn. The large sample size (6,000 households in 400 communes in 42 provinces). Treated communes: 266 Control communes: 134 Baseline: 2007 Follow-up: 2012 Household sampling: 15 hh from each selected village (commune)	<u>Quasi-experimental</u> : fixed effects estimation was implemented via the xtreg command in STATA; estimation accounted for the complex sample design (stratification, clustering and weighting). Results were reported separately for ethnic and non-ethnic minorities.	Control communes were selected using propensity score matching at the commune level: 134 communes that did not take part in P135-II and were most similar to the treated ones were selected to take part in the survey. There were no differences at baseline between the two groups	<u>Assets</u> : asset index, durables index, house quality index. <u>Productive impacts</u> : rice productivity (Kg/m2 and VND/m2) – physical and value; corn productivity (Kg/m2 and VND/m2) – physical and value; industrial crop productivity (Kg/m2 and VND/m2) – physical and value; share of land devoted to industrial crops <u>Income</u> : total per capita income; total income, income from wages and salaries; income from agriculture; income from business <u>Education</u> : primary enrollment; lower secondary enrollment; upper secondary enrollment <u>Health</u> : travel time to health facility

Gilligan, Hoddinott and Tafesse (2009)	Ethiopia	PSNP plus OFSP	<p>Quantitative household and community survey fielded between late June and early August 2006 in the four principal regions served by the PSNP. In these regions, a sample of food-insecure woredas were selected with probability proportional to size (PPS) based on the estimated chronically food-insecure population (beneficiaries). In total, 68 out of 190 woredas were selected. Enumeration areas (EAs) where the PSNP was active were identified in the woredas. About 25 hhs were randomly selected from each EA. Using separate lists of PSNP beneficiary and non-beneficiary households, 15 PSNP beneficiary households and 10 non-beneficiary households were selected using simple random sampling. This yielded a sample of 900 households each in Amhara and Tigray and 950 households each in Oromiya and SNNPR, giving a sample size of 3 700.</p> <p><u>Limitation:</u> there was no baseline survey, just a follow-up survey. Used retrospective questions to reconstruct baseline data. Period of reference for retrospective questions was two years prior to the survey (that is, six months before the PSNP began), making it possible to recreate pre-baseline conditions for beneficiary and non-beneficiary households.</p>	<p><u>Quasi-experimental</u> – use of propensity score matching (and applying common support) and when possible coupled with difference-in-differences estimates. Estimates for different treated groups: a) household received any payment for undertaking work on PSNP-supported public works; b) household received at least 90 birr per person, or food equivalent in value to 90 birr, for undertaking work on PSNP-supported public works; c) household received any payment for undertaking work on PSNP-supported public works and during this period, it received access to any component of the OFSP.</p>	<p>Control observations from the woredas where the programme was implemented. Comparison household were non-PSNP participants or, while listed as a PSNP participant, did not receive any payments for public works activities and did not have access to any component of the OFSP</p>	<p><u>Food security:</u> caloric acquisition was less than 1 800 kcal/day/capita in last 7 days; daily per capita caloric acquisition in last 7 days, Change in months of food security, 2004–2006; change in the square of the food gap, 2004–2006; Number of children’s meals/day; hungry season, <u>Consumption:</u> per capita total expenditure <u>Credit:</u> any credit use; problem repaying any loan <u>Improved agriculture technology:</u> use of fertilizer; use of improved seeds <u>Occupation:</u> any non-farm own business activity in past 12 months; entry into non-farm own business in past two years; any wage employment by males in past 12 months; any wage employment by females in past 12 months. Entry by males into wage employment in past 2 years, Entry by females into wage employment in past 2 years. <u>Assets:</u> Change in log value of livestock and tools, 2004–2006 <u>Transfers and remittances:</u> Any positive net transfers received from others, Value of net transfers received from others</p>
Hoddinott <i>et al.</i> (2012)	Ethiopia	PSNP plus HASP	<p>Detailed household panel survey data were collected in 2006 (see Gilligan, Hoddinott and Tafesse (2009) above, 2008 and 2010. These data include PSNP beneficiaries, OFSP/HABP beneficiaries as well as some households that did not receive any related transfers or services. <u>A balanced sample</u> of 3 140 households appeared in all rounds, yielding an attrition rate of 14.8 percent over 5 years, or just under 3 percent per year. The effective sample of households for analysis was all those households for which there is complete data on baseline household characteristics to be used in the dose–response models: 3 038 households</p>	<p><u>Quasi-experimental:</u> generalized propensity score (dose-reponse models of Hirano and Imbens, 2004). Objective: to measure the relative impact of PSNP transfers alone and joint transfers from the PSNP and OFSP/HABP on agricultural output, yields, fertilizer use and agricultural investment for farmers growing cereals in Ethiopia from 2006 to 2010. Dose is the number of years a household received PSNP payments and the response is the impact of each level of transfers on the outcomes of interest.</p>	<p>Comparison between different cells: the two PSNP dose–response models (low 1 year of PSNP and high 5 years of PSNP) estimated on the OFSP/HABP non-beneficiary sample and the OFSP/HABP beneficiary sample</p>	<p><u>Agricultural production and productivity:</u> change in production (kg); change in area (ha), change in productivity (kg/ha). Fertiliser use and investment: probability of fertiliser use, probability of investing in water harvesting, probability of investing in fencing, probability of investing in stone terracing.</p>
Nega <i>et al.</i> (2010)	Ethiopia	Food for work/PSNP plus credit	<p><u>Panel survey:</u> 2004, 2005 and 2006 applied in four tabias in northern Ethiopia using a two-stage sampling design. The PSU were tabias. Sampled tabias were selected on the basis of secondary</p>	<p><u>Non-experimental:</u> propensity score matching (tertile regression)</p>	<p>Non-beneficiaries of FSP and non-beneficiaries of FFW programme.</p>	<p><u>Poverty:</u> total, chronic and transient (the focus of the paper was on poverty transition)</p>

			<p>information collected from all woredas. In selecting the sample tabias, factors that affected socioeconomic conditions, such as distance to market, geographical location, the availability of both rain-fed agriculture and irrigation and size of tabia based on population, were considered. A total of four tabias, namely Ruba Feleg, Tsenkaniet, Arato and Siye, were selected for the survey. The selected tabias were representative of the three agroecological zones of the Tigray region identified on the basis of altitude. The survey questionnaire was administered to 100 households randomly selected from each tabia. A total of 400 households were selected for the survey. Only nine households were lost in the second round and six more households in the third round. The attrition rate over the three years was nearly 4 percent.</p>		Beneficiaries of FFW and FSP were matched separately.	
Macours, Premand and Vakis (2012)	Nicaragua	RPS plus <i>Atención a Crisis</i>	<p>All communities in the six municipalities of the pilot programme were grouped in blocks based on microclimates, crop mix, similarity in road access and infrastructure. Through a lottery, 44 blocks were selected and half of the communities in each block were randomly assigned to treatment and the other half to control.</p> <p><u>Baseline data</u> were then collected in the 56 treatment and 50 control communities. These data were used to define households' eligibility for the programme based on a proxy means test.</p> <p>Around ten percent of the households in treatment and control communities were ineligible for the programme because their estimated baseline expenditures, as determined by the proxy means, were above the pre-defined threshold.</p> <p>This process resulted in the identification of 3 002 households to participate in the programme. In a next step, 3.7 percent of the households that had originally been deemed eligible by the proxy means were reclassified as ineligible after a process of consultation with community leaders, and a corresponding 3.7 percent that had originally been deemed ineligible were reclassified as eligible.</p> <p><u>Baseline data for the evaluation were collected in April-May 2005.</u> The sample included the 3 002 eligible households in the treatment communities,</p>	<u>Experimental:</u> intent-to-treat household-level regressions (difference-in-differences).	Similar households selected from randomized-out communities.	<p><u>Consumption and income:</u> per capita total consumption; per capita total income; per capita food consumption; per capita non-food consumption; non-agricultural wage income; profit of non-agriculture business; expected increase in profits in 12 months.</p> <p><u>Assets:</u> value livestock sold or self-consumed; value business assets.</p> <p><u>Occupation:</u> non-agricultural wage employment; non-agricultural wage self-employment (elaboration, manufacturing, trade and services).</p>

			and a random sample of 1 019 eligible households in the control communities. <u>A follow-up survey</u> was conducted between August 2008 and May 2009 (henceforth referred to as 2008). Low attrition: 2.4 percent.			
Del Pozo (2014)	Peru	Juntos plus rural credit	Agricultural census: 1994 and 2012. It was possible to identify whether the district was covered by <i>Juntos</i> and if the household: a) never applied for credit; b) applied and did not get it; c) applied and got it. Propensity score matching was used to match treated and non-treated districts using the 1994 agricultural census. Sample size: 377 236 (108 971 control households – no beneficiaries in non- <i>Juntos</i> districts and 268 265 – beneficiaries in <i>Juntos</i> districts.	<u>Non-experimental</u> : PSM used to build pseudo panel and then difference-in-differences (controlling for fixed effects).	Similar districts and similar households identified using PSM. Robustness check using instrumental variables.	<u>Productive assets</u> : cultivated land (ha and %); irrigated cultivated land (ha and %); # cows, # calves # sheep/goats, #guinea pigs and rabbits, # poultry, % poultry shelter; % use of plough; % barn.
Garcia, Helfand and Souza (2016)	Brazil	Bolsa Familia (CCT) plus PRONAF	Agricultural census (1995-6 and 2006). Unit of observation: municipality. Treatment variable: coverage of <i>Bolsa Familia</i> (CCT) and PRONAF (subsidized rural credit for family farmers) for farmers with less than 500 ha. <u>Baseline</u> : 1995-6 <u>Follow-up</u> : 2006. Out of 4 270 comparable units of observation, 4 251 had enough observations and were included in the analysis PRONAF Coverage: baseline: 0, follow-up: 12.3 percent. <i>Bolsa Familia</i> Coverage: baseline: 0; follow-up: 14 percent. Joint coverage (intersection): baseline: 0; follow-up: 2.4 percent.	<u>Non-experimental</u> : difference-in-differences with fixed effects. Weighed regressions (weight=average number of farmers in a municipality) and standard errors are clustered at municipality level	Comparison group: no pure control group – impact identified by the different speeds of expansion of <i>Bolsa Familia</i> and PRONAF.	<u>Land productivity</u> : real value of the agricultural production per ha. <u>Income</u> : income per family worker <u>Child labour</u> : # of under 14 years old who work in the farm.
Aldana, Vásquez and Yancari (2016)	Peru	<i>Juntos</i> plus <i>Sierra Sur</i>	Survey date: end of 2013 and beginning of 2014. Treatment from the district of Chumbilvicas - poorest of the districts in the <i>Sierra Sur</i> . Sample was informally stratified with high, median and low income. Treated group: <i>Juntos</i> beneficiaries that took part in <i>Sierra Sur</i> Comparison group: <i>Juntos</i> beneficiaries from a district where <i>Sierra Sur</i> was not implemented – categorized into different groups: a) willing to participate in <i>Sierra Sur</i> ; b) median or high propensity to pay for <i>Sierra Sur</i> -type of projects; c)	<u>Non-experimental</u> : single difference with propensity score matching	Comparison groups were found using matching. However, it was slightly better-off than the treated group; in particular, it had better access to roads and the climatic conditions were also better than in the treated region in the period just before the	<u>Adoption of new productive practices</u> : vaccine, medicines, vegetable granders, barns, soil conservation, water harvest, etc. <u>Social capital</u> : # membership to organization; # participation in activities implemented by organization. <u>Assets</u> : value of total assets; value of land; value of livestock; value of business; value of agricultural assets. <u>Income</u> : gross income, net income, working capital.

			<p>high propensity to pay for <i>Sierra Sur</i> projects. Notice that b) and c) are subsets of a). Sample size: treated: 382; control: a) 402, b) 221, c) 125. Sample size after matching: treated: 320; control: a) 374; b) 209; c) 117.</p>		<p>survey. The comparison groups had to be selected using questions to assess the demand for the type of programme the treated group had access to as well as their willingness to pay for some of it. Three comparison groups were built based on these responses.</p>	
<p>Escobal et Ponce (2016a, 2016b)</p>	<p>Peru</p>	<p><i>Haku Wiñay</i> + Juntos</p>	<p>Escobal and Ponce (2016a) used a sample of 428 households (207 treated and 221 control) issued from 36 villages (<i>centros poblados</i>) from the department of Cajamarca, Huánuco and Huancavelica in their analysis. The original sample used at the baseline survey was of 447 households (219 treated and 228 control) which gives an attrition rate of 4.3 percent. The randomization into treated and control groups took place at the village level (18 pairs) using pairwise randomization in which the pairs were matched according to their similarity taking into account their socioeconomic features. Due to the small sample size, the randomization was not very successful and propensity score weights were calculated to balance the sample of treated and control households. Although this evaluation only looked at the impacts of <i>Haku Wiñay</i>, more than 80 percent of the sample were also beneficiary of the <i>Juntos</i> CCT programme. The sample of potential beneficiaries of <i>Haku Wiñay</i> had a take up rate of 86 percent</p>	<p><u>Experimental</u>: difference-in-differences with sample adjusted by propensity score matching</p>	<p>Households in randomized out villages</p>	<p><u>Income</u>: Total family income; income from agriculture; income from livestock; income from processed crops or animal products; new business (handicraft, commerce services), wage labour: agricultural and non-agricultural; Juntos transfers, other sources of income. <u>Expenditure</u>: food expenditure; <u>Perceptions</u>: improved income (household and village levels); ability to increase income, make more effort, resist to climatic shocks, resist to non-climatic shocks; double income; to do business and negotiate; knowledge of its own business. <u>Assets</u>: # guinea pigs, # hens <u>Production</u>: new vegetables, <u>Health and nutrition</u>: use of wood for cooking; improved kitchen; water treatment; hygiene practices; subjective perception of improvements in health and nutrition; incidence of respiratory problems, incidence of diarrhoea. <u>Production</u>: new crops (specially fruit and vegetables); revenue; eggs; natural and cultivated pasture <u>Food security/intake</u>: consumption of different food groups: animal protein, fruits and vegetables, cereals; diet diversity. <u>Financial literacy</u>: knowledge of financial issues; confidence in the financial system.</p>

Naude <i>et al.</i> (2016)	Mexico	<i>Prospera/Oportunidades</i> plus PROCAMPO	<p>Data from ENHRUM 2002 and 2007. Pooled data to increase statistic power. Panel data (attrition rate 13 percent). Coverage of communes with 500 to 2 499 inhabitants.</p> <p>Sample size: 3 290 (merged 2002 and 2007 samples).</p> <p>http://das-ac.mx/comunidad-enhrum/enhrum-ii-2007/</p>	<p><u>Non-experimental</u>: PSM (generalized propensity score due to multiple treatment and overlapping of treatment) - AIPW using Stata 13 and SAM (Social Accounting Matrix) for simulations (elimination of the programmes as counterfactual). Four groups: non-beneficiary (47.4 percent); <i>Oportunidades</i> beneficiaries only (29 percent); PROCAMPO beneficiaries only (12.9 percent); beneficiary of both programmes (10.8 percent). Estimation undertaken using pooled 2002 and 2007 sample and fixed effects.</p> <p>Caveat: it would be better to have a proxy of time of exposition to the programme (dosage model).</p>	Comparison group – matched through propensity scores. For the SAM – counterfactual is the elimination of each programme.	<p><u>Vulnerability</u>: vulnerability index</p> <p><u>Poverty</u>: food poverty; capability poverty; asset poverty.</p> <p><u>Education</u>: hh average years of schooling</p>
De Sanfeliú <i>et al.</i> (2016)	El Salvador	CCT – <i>Comunidades Solidarias Rurales</i> – plus productive programmes and rural development interventions	<p>Out of 100 municipalities in which the CCT programme CSR was implemented, 77 have some rural development project (18 CSR plus support to value chains (EP); 28 CSR plus food and nutritional security (SAN); and 31 CSR plus EP plus SAN) and 23 CSR only. Most beneficiaries of SAN projects (87 percent) were also in CSR municipalities, whereas only 37 percent EP beneficiaries were from CSR municipalities.</p> <p>Sampling frame: FISDL baseline census in the 100 CSR municipalities (between 2005-2009 depending on the year the programme started being implemented in the municipality) updated in 2014 (listing): 211 166 hh.</p> <p>Around: 69 698 were still receiving CSR transfers; 35 422 had exited the programme and 106 046 never received participated (updated).</p> <p>List of SAN and EP project participants between 2010-2013: 48 307 were from the 100 municipalities.</p> <p>Merging the three sources of information, it was possible to identify: 14184 hh that participated in the SAN and EP projects and were also in the FISDL census.</p>	<p><u>Quasi-experimental</u>: Simple cross-section difference between treated and control using PSM and RD (age of the child/CSR eligibility). Four comparisons of interest: a) A (CSR + DR) versus C (DR) - extra effect of CSR; b) AC (ExCSR+DR) Versus C (DR) - isolate the monetary effect of CSR comparing to 1); c) A (CSR+DR) versus AC (ExCSR+DR) - isolate of monetary effect of CSR; d) AC (ExCSR+DR) versus BD (ExCSR) - effect of DR after receiving CSR. EP is only evaluated in a). due to lack of sample (see survey data discussion). Parameter: ITT (using the administrative data instead of self-reported information).</p>	Several comparison groups are used to assess the impact of receiving both type of programmes, CCT plus different modalities of Rural Development (DR) interventions. Comparison is always between just one programme versus two programmes. There is no evaluation of having a single programme.	<p><u>Production</u>: new animals or new crops were introduced? (%); productivity (USD/manzana)</p> <p><u>Income</u>: agricultural income (USD); yearly total income (USD).</p> <p><u>Asset</u>: asset index</p> <p><u>Food security</u>: lack of dietary diversity (%); savings or asset depletion to buy food (%)</p> <p><u>Financial inclusion</u>: bank accounts (%); formal credit (%);</p> <p><u>Social participation</u>: % participate in producers' association; % participate in community associations</p> <p><u>Empowerment</u>: general empowerment; productive empowerment (separately for men and women)</p>

			<p>Out of 211 116 hh from the FIDSL census, 137 034 complied with the conditions to be part of the treated and comparison groups: a) a single family group; b) hh with a child 2 years above or below the eligibility age for the CSR and attending primary school; c) hh that benefited from SAN (2012) and/or EP (2011 and 2012); d) inactive CSR beneficiaries that left the programme in 2012, e) hh in municipalities where EP and SAM projects were developed. Hh that participated in RD (SAN and EP) projects were classified into A, AC and C and those who did not participate were classified into B, BD, D - depending on whether they were active CSR, inactive CSR or never beneficiaries of CSR. Those who did not benefit from RD projects (separately for SAN and EP) were matched to those who participated in each group of CSR status - excluding those outside the common support. It was only possible to find matches for EP for groups A and C; for SAR it was not possible to find matches for groups B and D. The sampling frame ended up with 6 176 hh. Random sampling led to a sample size of 1 301 hh spread over the six groups: EP (A: CSR+EP, 239; C: EP, 152); SAN (A: CSR+SAN, 241; C: SAN, 213; AC: ex CSR+SAN, 230; BD: ExCSR, 226).</p>			
Fernandez <i>et al.</i> (2016)	Chile	<i>Ingreso Etico Familiar</i> (CCT) plus productive support	<p><u>Panel survey</u> 2012-2014: beneficiaries and non-beneficiaries of the <i>Ingreso Etico Familiar</i> (IEF). About 20 percent of the sample are IEF beneficiaries. Questions about participation in FOSIS productive support programmes were also asked. Overlapping between two programmes: 2012 – 3 percent and 2014 - 4.7 percent. Sample size: 2 308 households (balanced sample)</p>	<u>Quasi-experimental</u> : Fixed effect model combined with propensity score matching. Logit for each programme effect and multinomial to measure the synergies.	Comparison group: non-beneficiaries and beneficiaries of only one programme.	<p>Outcomes of interest: <i>For IEF (only)</i>: <u>Human capital</u>: participation in training courses; participation in adult education courses; school attendance 7-18 years; school attendance for 6 year olds <i>For FOSIS productive support only</i>: <u>Income and occupation</u>: per capita autonomous income (net of benefit); total women's work force participation; participation in training courses; <u>Human capital</u>: participation in adult education courses; school attendance at 6 years. <i>For synergies</i>: the outcomes of both groups</p>
Moya (2016)	Colombia	CCT (<i>Familias en Acción</i>) plus <i>Oportunidades Rurales</i> (OR)	<p>Sample size: 729 beneficiary households of <i>Oportunidades Rurales</i> (OR) from 59 treated farmers' organizations (FOs) (between 2008 and 2013).</p>	<u>Quasi-experimental</u> : Due to lack of a clear comparison group for OR. Time of exposure to the programme was used.	There was no information on the FOs that applied but were not selected –	<p>OR impacts: <u>Production</u>: amount invested; land cultivated (% over total land area); production increased over 2008 (0/1)</p>

			Initially 68 FOs were selected using a stratified sample by entry year, activity and region and CREAR score (an index that assesses the quality of the organization). Afterwards, random sampling was adopted to select the individual households. Nine FOs were not interviewed during the field work between January-June 2014. They had closed down.	Households that entered the programme in 2008, 2009 and 2012 were compared to households that entered the programme in 2013. As for the FA, the treated group was comprised of those who were already FA beneficiaries when joined OR and those who became FA beneficiaries after joining OR (also time of exposition). The short-term impact was measured comparing the 2012 (treated) and 2013 (control) groups and the medium-term impact comparing the 2008/2009 group (treated) and the 2013 group (control). 44 percent and 19 percent of the treated group from 2008-9 were treated twice and three times, respectively, while the 2012 and 2013 sample was treated only once.	ideal control group according to the author. Thus, newer cohorts of FOs entering the programme were used to assess the impact of the programme on older cohorts. Regression framework.	<p><u>Occupation/employment</u>: daily hours of work; #daily labour; #family workers.</p> <p><u>Financial services</u>: microinsurance (%); access to formal financial services (%), access to informal financial services (%)</p> <p><u>Assets</u>: value of productive assets; value of total assets; asset index</p> <p><u>Consumption</u>: food consumption; total consumption</p> <p><u>Food security</u>: food security index.</p> <p><u>Poverty</u>: SISBEN score (proxy means test - PMT used to target social policies); subjective well-being.</p> <p><i>Synergies between OR and FA:</i> All the above plus: <u>Impact on children</u> (12-18 years): school attendance; education underachievement; hours of work; hours in school; hours of chores</p>
Dewbre <i>et al.</i> (2015)	Lesotho	Child Grant Programme plus Linking Food Security with Social Protection.	The impact evaluation strategy made use of a randomized control design for the impacts of the CGP. CGP beneficiary households (treatment group) and eligible non-beneficiary households (control group1) were interviewed in June/July 2001 (<u>baseline</u>) and June/July 2013 (<u>follow-up survey</u>). At the time of the latter, supplemental information on homestead gardening was collected to constitute a baseline for the LFSSP. The same households were visited again in June/July 2014 and a similar survey was readministered. <u>Important</u> : LFSSP was not randomized. The sample from Leribe district involved 307 households, which were interviewed in 2013 and were again targeted for data collection efforts in June 2014. In the district, 316 households were reached: 299 were successfully interviewed in 2013 and 17 had been interviewed in 2011, but not in 2013. In the sample, 165 households and 934 individuals were enrolled in the CGP. Since both CGP and non-CGP households received the LFSSP, the final sample included 299 households and 1 571 individuals.	Double difference. Treated group: CGP+LFSSP and comparison group: LFSSP. As there is no 'CGP only' after 3 years, the strategy was to compare two years of CGP only with three years of CGP plus one year of LFSSP (cross-section estimate for this aspect of the evaluation as there was no baseline for gardening activities back in 2011).	The objective of this evaluation was to compare outcomes that were attainable after two years of CGP only, versus impacts that occurred after an additional year of CGP assistance combined with the LFSSP, compared to those in the CGP control group that only received the LFSSP in the last year. Analysis was disaggregated by labour-constrained and labour-unconstrained households	<p><u>Homestead gardening</u>: hh harvest last year – spinach, Florida broad leaf, English rape, onions, carrots, beetroots, cabbage, peppers, peas, tomatoes, green beans, others; # of vegetables produced; hh harvests in spring; hh harvests in winter; hh harvests in summer; HH harvests in autumn; # of seasons harvested</p> <p><u>Technology adoption</u>: Household uses any: drying, vegetable canning, fruit canning, keyhole, trench garden, rain water; conservation: home produced; compost: purchased fertilizer; home-produced pesticide; control: frost protection, kraal manure; hh expanded garden; reasons for not expanding: lack of cash, lack of space, lack of labour, lack of market, inputs not available, not needed, other</p> <p><u>Land operation</u>: hh had home garden plot; hh cultivated/owned land; # non-homestead plots; owned land (ha); operated land (ha).</p>

						<p><u>Agricultural assets</u>: hh used any: hoe, sprayer, plough, plander, tractor, cultivator, scotch cart, yokes.</p> <p><u>Crop inputs</u>: input usage and purchase, separately: seed, pesticides, organic fertilizer, inorganic fertilizer, livestock inputs, feed, fodder, veterinary services</p> <p>Livestock: hh owned livestock – sheep, goats, chicken, pig, cattle (% and #).</p> <p><u>Consumption from own production</u> (last 7 days): cereal, meat, dairy goods, fats, vegetables, other foods.</p> <p><u>Consumption from purchases</u> (last 7 days): cereal, meat, dairy goods, fats, vegetables, other foods</p> <p><u>Labour allocation</u> (male, females and children, separately):</p> <p><i>past 12 months</i>: any work; non-farm-employment; own-crop, own-livestock; wage labour;</p> <p><i>past 7 days</i>: any non-farm-employment, own-farm, wage labour</p> <p>Permanent, temporary, occasional</p>
Pace <i>et al.</i> (2016)	Malawi	Social Cash Transfer Programme (SCTP) plus Farm Input Subsidy Programme (FISP)	<p>The study used data from the RCT to evaluate the impacts of the SCTP. Four traditional authorities from the districts of Salima and Mangochi were chosen randomly by a lottery. Then, eligible households were identified through a mix of proxy means test and community-based targeting in all Village Clusters (VCs) - VCs are village groups with between 800 and 1 500 households each - that were formed within these four Traditional Authorities for the purpose of implementing the programme. The targeting was done by the six members of the Community Social Support Committee (CSSC) chosen from different geographical locations in the VCs under the oversight of the District Commissioner's Office and the District Social Welfare Office. A <u>baseline survey</u> for eligible households was completed in July/August 2013 covering 3 500 households in all four TAs. Just after the baseline survey, half of the VCs were randomly assigned to a treatment group and entered the programme immediately, while the</p>	Difference-in-differences with propensity score matching (IPW). Authors looked at heterogeneous impacts (labour-constrained households versus labour-unconstrained households).	<p>The sample of 3 214 observations (both baseline and follow-up) was divided into four groups: a) control households that neither received the SCTP nor the FISP; b) households treated exclusively under the SCTP; c) households treated exclusively under the FISP; and d) households treated under both programmes simultaneously (respectively, 38.33, 30.18, 14.87, and</p>	<p><u>Expenditures</u>: per capita expenditure, per capita food expenditure, per capita health expenditure, per capita education expenditure, per capita clothing expenditure, per capita alcohol and tobacco expenditure, per capita housing and utilities expenditure, per capita furnishing expenditure, per capita transport expenditure</p> <p><u>Food security</u>: worry about lack of food (%), number of meals per day, per capita calories, per capita calories from purchased food, per capita calories from home production.</p> <p><u>Production</u>: value of production (MKW), engaging in maize production (%) and amount, groundnut production (%) and amount, pigeon pea production (%) and amount, Nkhwani production (%) and amount, rice production (%) and amount.</p> <p><u>Input use</u>: improved and hybrid seeds (%) and amount, organic fertilizers (%) and amount, pesticides (%) and amount.</p>

			other half served as a control group in order to measure the impact of the programme and were supposed to enter the programme at the end of the evaluation period. To assess the impact of FISP, the sample was reduced from 6 708 hhs to 3 214hh as hh that benefit from FISP on the baseline were dropped from the analysis.		16.6 percent of the study sample).	<u>Productive assets:</u> agricultural assets – hoe, axe, panga knfe, sickle (%) and amount. Livestock: chicken, goat and sheep, other poultry (%) and amount of expenditure
Upton <i>et al.</i> (2012) – Results also published in Harou <i>et al.</i> (2013)	Burkina Faso	Local Education Assistance Procurement (LEAP)	The authors use three different cross-section evaluation surveys with retrospective questions to estimate the impact of local procurement for the school feeding programme (LEAP) on both food recipient satisfaction and suppliers/farmers. For the latter, the survey was restricted to cowpea producers focusing on personal and production characteristics. For the food recipients the surveys covered head school cook and then the school director. Thus, no survey look directly and school age children and/or their households. Ex-post survey with retrospective questions. Sample of 20 farmers from the list of all farmers association members in each of the eight LEAP departments, yielding a sample of 160 farmers. Farmers association close to the MYAP (control) schools yielded a random sample of 150 farmers. Schools were stratified by department and 15 of them were selected from each of the 8 departments, a total of 120 schools, and then the same number of schools from the MYAP four departments was matched to them. Sampling weights were used in the analysis for both producer and school data.	Difference-in-differences (using retrospective questions) with random and fixed effects	Famers and schools from neighboring villages.	<p>Farmers' outcomes: <u>Quality Knowledge:</u> number of quality criteria from the programme that were acknowledge by the farmers; conservation practices <u>Asset investments:</u> small investment; Traction investments <u>Production:</u> sales prices. Profitability and revenue <u>Transaction costs:</u> Travel time to markets (in min) and Distance travelled (in km)</p> <p>Recipients outcomes: <u>Commodity preference:</u> taste, ration size, texture, appearance, cleanliness, storability, nutrition, general satistaction. <u>Preparation requirements:</u> time, effort, cost, fuel use, water use and oil use.</p>

Source: authors' own elaboration

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