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The interaction between social protection and agriculture: A review of evidence

Nyasha Tirivayi[a,*], Marco Knowles[b], Benjamin Davis[b]

[a] UNU-MERIT (United Nations University), Boschstraat 24, 6211 AX Maastricht, The Netherlands
[b] Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, 00153 Rome, Italy

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ABSTRACT

Both agricultural interventions and social protection interventions are needed for combatting hunger and poverty among poor smallholder farmers. Yet, coordination between these two sectors is generally limited and, until recently, little attention has been paid to the interaction between them and how this potentially improves rural livelihoods. Our review analyses the empirical evidence on how social protection impacts agricultural production and how agricultural interventions reduce risks and vulnerability at the household and local economy levels. Most studies show that social protection can increase agricultural production while agricultural interventions can lower vulnerability. However, the availability of evidence is uneven across outcomes and developing regions. We conclude that existing evidence largely provides an empirical rationale for building synergies between social protection and smallholder agriculture.

1. Introduction

Social protection policies aim to reduce socio-economic risks, vulnerability, extreme poverty and deprivation, while smallholder agricultural policies focus on improving productivity in crops, fisheries, forestry and livestock and improving access to markets. Both areas of policy are important elements in poverty reduction strategies. Yet, coordination between these two sectors is generally limited (Slater et al., 2016) and little attention has been paid to the interaction between them.

Conceptually, there is a two-way relationship between social protection and agriculture. On one hand, poor rural households that mostly rely on agriculture for their livelihoods are often affected by limited access to resources, low agricultural productivity, poorly functioning markets and repeated exposure to covariate and idiosyncratic risks (Dorward et al., 2006; HLPE, 2012). In the absence of insurance or other risk sharing arrangements, poor rural families may be forced to adopt negative coping strategies that further increase their vulnerability and undermine their future income generation capacity. Social protection can reduce the vulnerability of rural households by alleviating credit, savings and liquidity constraints by providing cash and in-kind support. In addition, regular and predictable social protection instruments enable households to better manage risks and to engage in more profitable livelihood and agricultural activities. Nevertheless, it is unlikely that social protection alone can sustainably lift rural households out of poverty or lead to long-term changes in livelihoods as it cannot address the structural factors that limit access to natural resources, factors of production, technologies and markets. On the other hand, agricultural policies and interventions can help smallholder households manage risk by stimulating farm output, income and overall household welfare. Agriculture is especially relevant to regions like sub-Saharan Africa where 72% of the rural population are smallholder farmers (World Bank, 2007). There is, therefore, potential for establishing synergies between these sectors that would strengthen the livelihoods of poor smallholders.

This study explores the interaction between formal social protection and agriculture by proposing a theory of change and conducting an empirical review that identifies how social protection impacts agricultural production and how agricultural interventions reduce risks and vulnerability at the household and local economy levels. The paper seeks to provide an empirical rationale for building synergies between social protection and smallholder agriculture in developing countries.

2. Impact pathways

Following the agricultural household model, the central assumption behind our theory of change is that consumption and production decisions are not separable for rural households living

* Corresponding author.
E-mail address: tirivayi@merit.unu.edu (N. Tirivayi).

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in a context of missing or incomplete markets. Social protection and agricultural interventions can play a vital role in easing these constraints for rural households. There are three plausible pathways through which social protection affects agriculture and vice versa.

2.1. Alleviation of liquidity and credit constraints

The first shared impact pathway is the alleviation of credit, savings and liquidity constraints. Social protection interventions like cash transfers or cash for work can either improve savings or alleviate credit constraints (Barrientos, 2012). Agricultural interventions like microcredit, microfinance and input subsidies may also alleviate the credit constraints of rural households.

2.2. Certainty

Another shared impact pathway is certainty. Given the risks and vulnerability that rural households face, they are usually risk-averse (Barrientos, 2012; Fenwick and Lyne, 1999; Rosenzweig and Wolpin, 1993; Morduch, 1995). Social protection instruments that are provided at regular and predictable intervals can increase certainty and act as insurance against risks. Agricultural interventions can also increase certainty and provide insurance to rural households. For example, irrigation and weather-based crop insurance schemes address the uncertainty related to weather variability.

2.3. Access to technology, knowledge and financial services

A third impact pathway is the access to technology, knowledge, inputs and factors of production that agricultural interventions can provide. For example agricultural interventions like input subsidies, technologies, and land tenure reform address production constraints. Interventions like farmer field schools and extension services enhance access to agricultural knowledge and skills. Some social protection interventions like public works programmes may also work though this third pathway since they potentially facilitate access to relevant knowledge, skills and rural infrastructure. However the current empirical evidence on public works programmes does not yet support this hypothesis.

Through these pathways, social protection and agricultural interventions trigger behavioural responses that determine the direction and magnitude of impacts. They include: changes in spending behaviour; better risk management through avoidance of negative coping strategies and enhanced risk taking behaviour that encourages investments; changes in intrahousehold resource allocation; changes in participation in social networks; and local economy effects. A more comprehensive explanation of the theory of change is available in the monograph by Tirivayi et al. (2013).

3. Methodology

3.1. Search strategy and study selection

This paper updates and builds upon our earlier literature review previously published as a monograph (Tirivayi et al., 2013). Our review was not intended to be exhaustive, but rather to highlight studies that demonstrate impact. We searched for peer-reviewed and grey literature on Google Scholar, JSTOR, Science Direct, Scopus, and websites of the World Bank, IFPRI, WFP and CGIAR. Our review primarily looked at quantitative studies and evidence presented in systematic reviews. We supplemented the empirical review with several qualitative studies.

After applying the inclusion criteria (Appendix A), the literature review identified several systematic reviews and synthesis reports.

Table 1
Social protection studies in the IEG review (IEG, 2011b).

Types of social protection interventions	*Percent (n=185)*
CCTs	56
SF/THR	11
HEW	4
Workfare	9
ES	2
UCT	7
NCP/DB	6
Food aid	2
GS	1
FCA	1

Notes: Source: IEG (2011a). CCT=conditional cash transfer, SF/THR=school feeding/take home rations, HEW=fee waivers for health and education, ES=employment subsidies, UCT=unconditional cash transfer/basic transfer, NCP/DB=non-contributory pension/disability benefit, GS=general subsidies, FCA=family/child allowances.

IEG (2011a) is a comprehensive review of 149 completed and 36 ongoing social protection impact evaluations covering 48 countries and 86 social protection programmes (Table 1). Other reviews include: Alderman and Yemtsov (2012), Yoong et al. (2012), Fiszbein and Schady (2009), Lagarde et al. (2009) and Manley et al. (2012), all of which summarised the impact of specific social transfers on various socio-economic outcomes. We also identified two synthesis reports that summarised the economic impacts of several cash transfer programmes in sub-Saharan Africa: Thome et al. (2016) and Barca et al. (2015). Overall, we inspected around 160 social protection impact evaluations developing regions, including Latin America.

We also identified one review of 86 diverse agricultural impact evaluations in Africa, Asia, Latin America and the Caribbean (IEG 2011b). Others review crop insurance (Cole et al., 2012), the impact of agriculture on child nutritional status (Masset et al., 2012), and the impact of rural microfinance in sub-Saharan Africa (Stewart et al., 2010). Overall, we inspected around 141 agricultural impact evaluations.

3.2. Outcomes

For social protection impact evaluations, we focused on outcomes related to agricultural production e.g. assets, inputs, labour allocation and agricultural output (i.e. crops, livestock, fishing and forestry). We also analysed outcomes with indirect implications for agriculture e.g. human capital development, off-farm investments, and adverse risk coping strategies (see Table A1 in Appendix A). For agricultural impact evaluations, the first group of outcomes measures vulnerability. Income, increased consumption, food and nutrition security and durable asset accumulation all demonstrate a household's capacity to withstand risks and shocks. The second group of outcomes examines the income-generating capabilities of households. They include; labour allocation, high-return investments and human capital development (see Table A2 in Appendix A).

We also looked at local economy effects. They include spillover effects on non-beneficiary households (e.g. consumption and labour supply), income multipliers, changes in local markets and in social networks and private transfers (e.g. gifts, loans, remittances).

4. Impact of social protection on agriculture

Most of the available evidence on the direct and indirect impacts of social protection on agriculture comes from evaluations of