Income Intervention Quick Scan: Outgrower Schemes and Contract Farming

Farmer Income Lab Intervention Quick Scan

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Abstract UK This quick scan, commissioned by the Farmer Income Lab, is part of a wider research effort looking at, "What are the most effective actions that lead buyers can take to enable smallholder farmers in global supply chains to meaningfully increase their incomes?". The quick scan provides an overview of the publicly available evidence on the impact of outgrower schemes and contract farming have had on raising farmer income. Such subsidies have had little positive effect on farmer income, are not notably beneficial for women nor is this effect long-term. They have been applied at large scale. This quick scan is part of a series of 16, contributing to a synthesis report "What Works to Raise Farmer’s Income: a Landscape Review".

Keywords: farmers’ income, intervention, agriculture, smallholders, outgrower schemes, contract, vertical coordination, risk management

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Report WCDI-18-032

Photo cover: Photo source: CIAT, Neil Palmer
## List of abbreviations and acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF</td>
<td>Contract Farming</td>
</tr>
<tr>
<td>OS</td>
<td>Outgrower scheme</td>
</tr>
<tr>
<td>ToC</td>
<td>Theory of Change</td>
</tr>
<tr>
<td>WCDI</td>
<td>Wageningen Centre for Development Innovation, Wageningen University &amp; Research</td>
</tr>
<tr>
<td>WUR</td>
<td>Wageningen University &amp; Research</td>
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</table>
1 Introduction

“Outgrower schemes” and “contract farming” are often used interchangeably. We do the same in this brief outline. Little and Watts (1994) and Martiniello (2017), amongst others, discuss the phenomenon of contract farming in a historical perspective. They demonstrate that this practice goes back to as early as early in the 20th century. Many studies have been done since then. Over the past decade, there is a renewed interest in this practice. This relates to the fact that it is increasingly "seen as a panacea for many of the challenges faced by agricultural production in developing countries. Given the large heterogeneity of contract farming arrangements, it is debatable whether all kinds of contract farming arrangements offer benefits to participating smallholders. Nonetheless, many donor agencies, nongovernmental organizations, and governments of developing countries are increasingly pushing for contract farming and outgrower schemes as an instrument to commercialize smallscale farming. Their desire for such arrangements is further reinforced by the recent rush for large-scale agricultural land acquisition in most developing countries, often described as "land grabbing," because contract farming and outgrower schemes can result in the same advantages as large-scale farming, but avoid its main drawback—namely the displacement of the current land-users" (Wendimu, 2016).

The following provides a summary of key parameters regarding the (alleged) positive link between outgrower schemes/contract farming and smallholder farmer income.

1.1 Definition

There are many definitions around. The following help to characterize essentials of outgrower schemes/contract farming.

• An out-grower scheme is “a contractual partnership between growers or landholders and a company for the production of [agricultural/forest] products”. (adapted from FAO/Mead, 2001)

• It is “a contractual arrangement between farmers and other firms, whether oral or written, specifying one or more conditions of production, and one or more conditions of marketing, for an agricultural product, which is non-transferable. This excludes pure forward contracts (which can be transferred)”. Prowse, 2012:10

• It concerns “forms of vertical coordination between growers and buyers-processors that directly shape production decisions through contractually specifying market obligations (by volume, value, quality, and, at times, advanced price determination); provide specific inputs; and exercise some control at the point of production (i.e. a division of management functions between contractor and contracted (Little & Watts, 1994:9).

• “In a typical contract farming arrangement, farmers commit to providing an agreed quantity of a product that meets the quality standards of the buyer at the time the buyer determines. In turn, the buyer purchases the product for an agreed price and, in some cases, supports the production process. This may entail the supply of inputs or tools, mechanization services, technical advice and/or access to finance. An outgrower scheme is a special type of contract farming. We define such a scheme as “a central facility surrounded by growers who produce on their own land under contract”. (Holtland, 2017:2)

Outgrower schemes/contract farming comes in many shapes and forms (Figure 1).

Since farmers may be both part of an outgrower scheme and engage in other economic activities, it is not always easy to assess what income change can be attributed to what. We discuss this further in the following.
1.2 Theory of change

The generic theory of change for outgrower schemes follows the following basic pattern (simplified perspective) (Figure 3). In simple terms, along the lines of a ToC such as presented in the diagram on the next page, one may be positive about the potential of OS/CF for improving smallholder farmer income. At the same time, literature clearly points to the fact that whether or not this will be the case, very much depends on getting conditions right in a broader perspective than just looking at the OS/CF arrangement itself (see section 5). Literature also spends much attention to other impacts on smallholder farmers, such as increased dependency and the risk of debt as a result of payment for e.g. inputs. A key question in articulating a theory of change for an outgrower scheme would therefore be how inclusive such ToC should be.
“The heterogeneity of contract farming across localities, in terms of actors involved, institutional contexts and production relations, makes attempts to develop an over-arching explanation or theory somehow unproductive as a diverse array of local conditions and global structures have shaped the outcome of contract production” (Martiniello, 2017:1).

To give an idea about what this involves, Cieslik 2016:7 provides an overview based on extensive literature research:

<table>
<thead>
<tr>
<th>Advantages for a farmer</th>
<th>Disadvantages for a farmer</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Access to new reliable markets</td>
<td>- Risk of contract default</td>
</tr>
<tr>
<td>- Ability to purchase inputs</td>
<td>- Risk of monoculture</td>
</tr>
<tr>
<td>- Protect against systematic loss</td>
<td>- Little (or lack of) bargaining power (inability to benefit from high prices)</td>
</tr>
<tr>
<td>- Access to credit and financial intermediation (sometimes banks, microfinance institutions, and foundations are involved)</td>
<td>- Monopsonistic markets (one buyer purchasing products of many producers within certain geographical area)</td>
</tr>
<tr>
<td>- Access to information, production and management skill transfer, new technology, agro-services (mechanization, transportation)</td>
<td>- Traditional market linkages and traditional farming practices lost</td>
</tr>
<tr>
<td>- Ability to receive inputs (seeds, fertilizer) at lower cost and extension services</td>
<td>- Unsuitable technology and crop incompatibility</td>
</tr>
<tr>
<td>- Risk reduction through guaranteed prices</td>
<td>- Manipulation of quotas and quality specifications</td>
</tr>
<tr>
<td>- Decrease transaction cost</td>
<td>- Poor or no income stream in first years for some crops</td>
</tr>
<tr>
<td>- Sometimes training for management</td>
<td>- Indebtedness and overreliance on advances</td>
</tr>
<tr>
<td>- Higher value crops introduction means higher income</td>
<td>- Corruption</td>
</tr>
<tr>
<td>- Decrease transaction cost</td>
<td>- Delays in payment, inputs, or change in contract terms</td>
</tr>
<tr>
<td>- Higher value crops introduction means higher income</td>
<td>- Loss of flexibility</td>
</tr>
<tr>
<td>- Risk of contract default, side-selling, or extra-contractual marketing</td>
<td>- Rising inequality and landlessness</td>
</tr>
<tr>
<td>- Risk of monoculture</td>
<td>- Promotion export-orientated agriculture at the expense of subsistence agriculture and can harm food security</td>
</tr>
<tr>
<td>- Little (or lack of) bargaining power (inability to benefit from high prices)</td>
<td>- Large-scale farmers are in favour</td>
</tr>
</tbody>
</table>

1.3 Geography

This practice has been implemented globally.

There are a number of specific countries for which impact studies were done (e.g. Ghana, Zambia, etc.) but that does not relate to a specific focus of where this takes place.
1.4 Role of actors

Private sector plays the key role since they are the ones providing contracts. Depending on the type of model involved, buyers, traders, and other intermediaries may play a role. Governments often play a role in terms of facilitating licensing for companies. Donors and NGOs may play a facilitating role in processes of capacity development of farmers, including in support of organization through producer organizations, etc.

Non-private sector partners can play (or often even have to play) an important role in helping set up arrangements between company and farmers which are conducive for it becoming a success both for farmers and for the company. NGOs often play a role of facilitating partner and build up the necessary technical and economic knowledge and skills; if this is too complicated and time-consuming, they should hire consultants to do the business planning part. Also, NGOs should withdraw once the scheme is working properly.

The role of donors relates to paying for the design of the scheme and to invest in those assets that are crucial and cannot be paid for by any of the partners. In some cases, government programmes may cover part of the (infrastructure) costs of the contract farming scheme. Wiggins and Keats (2013) concluded that the role of donors may be in supporting “governments in fulfilling their basic roles, both in technical assistance on the investment climate, and in funding investment in rural public goods in low income countries where public resources are currently insufficient” (:84-85).
2 Summary and justification of assessment

The following is about 'in-principle' scores, which means that it relates to what the intervention would be capable of in principle (potential positive impact). As noted earlier, it then still depends on getting conditions right whether this will work out in a particular setting and setup.

<table>
<thead>
<tr>
<th>Assessment criterion</th>
<th>WUR score</th>
<th>Rationale for score</th>
</tr>
</thead>
</table>
| **Scale:** Size of the population intervention could impact and potential to scale to other contexts | High | • The potential positive impact of OS/CF applies specifically to smallholder farmers, which means that countries such as in Africa the size of population that could enjoy related benefits is large.  
• The potential of outgrower schemes/contract farming applies widely in terms of geography. The potential applies specifically for cash crop related value chains and not for those related to staple crops.  
• Outgrower schemes of many sizes are referenced (e.g. IFAD (2013) mentions schemes ranging from 160 farmers (apples in China) to 32,000 farmers (groundnuts in Senegal)). |
| **Impact:** degree of increase in incomes | High | • This varies significantly across the various studies. In the case of increased income, this may vary from 10% to beyond 100%.  
• Increase in income is certainly not always the effect of outgrower schemes/contract farming. |
| **Sustainability:** financial ability of farmer income increase to endure independent of ongoing external support | Medium | • If the scheme has been set up well, this can be the case, but there will always be the risk of conditions taking a turn resulting in negative impact on farmer income. |
| **Gender:** Potential of intervention to positively impact women | Low | • The term 'outgrowers' is used universally in a gender neutral way, meaning that it does not differentiate between male outgrowers and female outgrowers. The consequence of that is, when using the term outgrowers, the audience has little understanding of any gender disparity. The use of gender-neutral terms often leads to data which is not gender-disaggregated and prevents (Hobden & Sands, 2017)  
• An underreported feature of outgrower projects is the extent that women are excluded. There are complex reasons underpinning this exclusion, including lack of access to land, reliance on patriarchal power structures, and traditional beliefs that contractual relationships are formed with the male head of household. (Hobden & Sands, 2017) |
<p>| <strong>Vulnerability:</strong> degree to which inappropriate arrangements may affect success negatively | High | • More than 75% of the studies emphasizes that positive impact on income of smallholder farmers really depends on getting the scheme right given the value chain and the relevant context. That is also why so many guidance documents came out recently (see later in this report). |</p>
<table>
<thead>
<tr>
<th>Assessment criterion</th>
<th>WUR score</th>
<th>Rationale for score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth: amount of rigorous literature that exists on the impact of the intervention</td>
<td>High</td>
<td>There are at least ten studies which meet such standards, include meta-analysis drawing on dozens of underlying studies.</td>
</tr>
<tr>
<td>Consistency: Degree to which the studies reviewed are in agreement on the direction of impact</td>
<td>Medium</td>
<td>There are a number of resources which are fully positive about the potential of OS/CF. Some resources focus on the drawbacks and the potential for even negative impact. In general, however, this falls in the range of some emphasizing that the glass is half full and others that the glass is half empty. Almost all if not all studies acknowledge the fact that success is not automatic and that careful design and implementation is crucial.</td>
</tr>
</tbody>
</table>
3 Methodology

- 122 studies were reviewed. These are, in the time available, the main ones on the topic, but digging deeper would probably render a few 10s of other studies, reports, and guidance documents are available. This assertion is based on a quick review of references in the studies which were reviewed.
- Around 12 studies focused specifically on impact (income related and more) of OS/CF. Some of these provided indirect evidence on impact of OS/CF on smallholder farmer income, but as such focused on more general processes such as commercialization of agriculture. These included 3 meta-studies.
  - Around 6-7 studies involved rigorous impact studies on income effects of OS/CF. Though not consulted (due to time constraints) more rigorous impact studies were referred to in the consulted literature.
  - Overall there was direct consultation (12) + indirect consultation (22) of rigorous studies on income effects of outgrower schemes/contract farming: 34 rigorous studies.
  - General studies on income effects: more than 100 (exact numbers are difficult to say because of different studies partly referencing the same sources.
- The studies provide sufficient evidence that OS/CF can in principle lead to (significant) positive impact on smallholder farmer income and has done so in documented cases. The studies all support the fact that it really depends on how the OS/CF is set up exactly.
4 Impact

There are various models of/approaches to outgrower schemes/contract farming. Outgrower schemes/contract farming can have a positive impact on smallholder farmer income. There is evidence from a range of studies to support this conclusion. BUT, if specific contractual and other arrangements are not right (as such and in view of the relevant context), it will not have positive impact or even have negative implications for smallholder farmers and companies.

Investing in outgrower schemes/contract farming for the purpose of positively contributing to smallholder farmer income therefore has to be guided by careful design, implementation, and evaluation principles to prevent negative impact on either or both smallholder farmers and on the company (‘s reputation). This requires addressing three levels: working with the right model, positioning the scheme strategically (doing the right things), and ensuring effective operations (doing things right). Literature includes ample guidance on principles of good practice and related success factors.

Finally, outgrower schemes/contract farming does not work well for all value chains: staple crops are generally speaking not suitable, and cash crops generally speaking more suitable.

4.1 Effect on income

Outgrower schemes/contract farming are reported to increase income up to 100%, mostly between 10-30%. Minot (2014) reports a general increase of between 25 and 75% and benefits going well beyond 100%. Best results were achieved for cash crops. Conditions were generally such that most impact studies of a particular outgrower scheme advise not to take findings as an indication of what OS/CF can achieve in general. Outgrower projects which work through pre-existing farmer cooperatives or associations are the most successful in terms of outreach, whilst projects which maintain a very close relationship with outgrowers . . . are the most successful in terms of impact on smallholder income. (Hobden & Sands, 2017).

4.2 Intermediate and other outcomes

Both positive and negative other outcomes were observed. This involves debate on the implications of commercialization of smallholder/subsistence farmers. Productivity gains are part of the theory of change for OS/CF. Nutrition is a sensitive issue. Several authors point out that nutrition may suffer if farmers commit a too large share of their land to contract farming.

4.3 Scalability

OS/CF can be practiced at various scale levels. As is the case for many interventions, OS/CF can be scaled as a general model, but not as a specific package. It will always need to be fine-tuned to relevant context and related conditions. This means that one needs to be very careful in scaling and not merely try to “roll out” such intervention.

Each outgrower scheme/contract farming arrangement will be unique because of the exact way it is set up and is functioning (and the crop it relates to). In terms of the scale at which OS/CF is practiced, literature shows that it can be applied widely. As noted earlier, if there is a pre-existing farmer cooperative or association, it may be easier to develop an outgrower scheme at scale.
4.4 Sustainability

Support in relation to inputs, knowledge, technologies, etc. is usually part and parcel of the OS/CF arrangement, which means it will continue. That will also be the case when farmers have organized themselves as a producer organization. In terms of start-up support through donors and NGOs, this will indeed end after a period of time.

It is not possible to conclude whether farmers continue to buy into and adopt the changes that resulted from an intervention since conditions under which OS/CF take place change over time. Literature discusses the issue of side selling, which happens when farmers consider it more attractive to sell outside of the contract and do not feel bound to the contract. This points to the need to ensure that the contractual arrangements stay attractive for both buyer and farmers over time, which points to the need for active monitoring of how this is working out over time.

Matango (2006) reports a consistent improvement of income of farmers in a sugar outgrower scheme in Tanzania over a period of ten years. However, Wiggins and Keats comment that “we know too little about contracting, above all the dynamics of contracting, since so many studies are snapshots in time. Moreover, the cases that are documented are not random samples, since selection bias applies: the schemes that are documented are almost inevitably those that survive, with failed schemes being unobservable and usually undocumented. Further biases apply when looking at the impacts on farmers, since contracting firms tend to pick out the more favoured areas and the better resourced farmers within them. These farms and locations would probably be doing well whether or not a contract scheme operated” (Wiggins and Keats, 2013:33). Other authors confirm that studies often have a selection bias since they focus on OS/CF arrangements which survived (e.g. Ton et al. 2018). Still, most agree that data is sufficient to support a conclusion that moderate income effects can be achieved.

4.5 Applicability of impact

Gender

Negative effects on gender, in terms of employment, have been reported (Dancer, 2015). ”The term ‘outgrowers’ is used universally in a gender neutral way, meaning that it does not differentiate between male outgrowers and female outgrowers. The consequence of that is, when using the term outgrowers, the audience has little understanding of any gender disparity. The use of gender-neutral terms often leads to data which is not gender-disaggregated and prevents” (Hobden & Sands, 2017). “An underreported feature of outgrower projects is the extent that women are excluded. There are complex reasons underpinning this exclusion, including lack of access to land, reliance on patriarchal power structures, and traditional beliefs that contractual relationships are formed with the male head of household” (Hobden & Sands, 2017).

Rijke (2017) reports a number of constraints for positive impact on women, including the following: Limited access to resources and services including hired labour, equipment, technology, finance, and markets; Less exposure to education and training; Limited control over productive resources, especially land; Limited control and power to decide over income from production and other benefits; Limited participation and leadership in farmers’ organisations and the community; Workload due to multiple responsibilities.

Farmer segments

Table 1 gives an overview about the ways and extent farmer segments are affected by OS/CF schemes.
Table 1  Inferred relevance of outgrower schemes for different farmer segments.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Relevance for/impact through OS/CF</th>
<th>Potential for complications if engaged in OS/CF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra poor</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>&quot;We show that smallholders can benefit from the contractual arrangement. However, the poorest farmers are rarely included; we show that, in 61% of the cases, the contract farmers had significantly larger landholdings or more assets than the average farmers in the region&quot; (Ton et al. 2018)</td>
<td></td>
</tr>
<tr>
<td>Subsistence farmer</td>
<td>Low-medium (if farmers have not organized themselves) Medium (if farmers have organized themselves)</td>
<td>High Medium</td>
</tr>
<tr>
<td>Pre-commercial farmer</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Commercial farmer</td>
<td>Medium-low</td>
<td>Low</td>
</tr>
<tr>
<td>Agribusinesses</td>
<td>High</td>
<td>Low (if connected to (pre-) commercial farmers) Medium-High (if connected to subsistence farmer or ultra poor)</td>
</tr>
</tbody>
</table>

Regarding the type of value chains relevant to OS/CF schemes, the practice of OS/CF can in principle be linked to many different types of value chains. There are examples ranging from forest products to cash crops to food crops. However, Technoserve/IFAD (2011) conclude that it works best when "the product value chain generates sufficient revenues for the buyer to cover not only their input costs and provide a profit but also to cover the costs of developing and maintaining an effective and healthy relationship with their growers. These costs will often include the payment of premiums for quality and consistency of supply, but may also include the costs of extension and/or grower management, of facilitating investment in both inputs and farm infrastructure and of transport. If the dynamics of the product value chain allow it, and the buyer is willing to forego some profit in order to maintain its relationship with growers, it is likely that such schemes will be successful". (9). This conclusion is supported by other studies. This would mean it would work best for mint (cash crop), a bit less for cocoa (tree crop), and rice (staple crop) is not very suitable for outgrower schemes.

4.6 Enhancing the intervention

Collaboration of the buyer with government and NGOs helps to address potential start-up/design problems.

The combination of OS/CF with support to farmer organization significantly increases opportunities of smallholder farmers benefiting from this. Insurance can be an additional component in an intervention bundle so as, e.g., reducing the risk of defaulting on debt repayment.
5  Key success factors

Fisher & Roberts (2017), partly based on other studies as well considers nine principles of success for OS/CF (Table 2).

**Table 2** Principles for success for OS/CF.

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A market-driven approach</td>
<td>Providing smallholder farmers with access to consistent and reliable markets drives economic activity in rural areas.</td>
</tr>
<tr>
<td>2 Input support</td>
<td>Providing appropriate agricultural inputs to smallholder farmers on credit overcomes the barrier of high initial cost outlay.</td>
</tr>
<tr>
<td>3 Commercial and financial viability</td>
<td>Both the commercial partner and smallholder farmer need to make a profit for outgrower schemes to succeed.</td>
</tr>
<tr>
<td>4 Long-term sustainability and scaling up</td>
<td>Outgrower schemes need to be environmentally and economically sustainable.</td>
</tr>
<tr>
<td>5 Creating an enabling environment</td>
<td>Building networks of diverse stakeholders provides outgrower schemes with valuable local institutional and leadership support.</td>
</tr>
<tr>
<td>6 Farmer selection</td>
<td>Selecting suitable farmers to participate can be critical to the success of the scheme.</td>
</tr>
<tr>
<td>7 Farmer training</td>
<td>Training in farming practices, business skills, social issues, and other areas is at the core of a sustainable outgrower scheme.</td>
</tr>
<tr>
<td>8 Management tools</td>
<td>Close monitoring and innovative new technologies help management make better-informed decisions more quickly.</td>
</tr>
<tr>
<td>9 Risk mitigation</td>
<td>Judicious use of donor funds in the early stages reduces risk of developing a context-appropriate model over the long term.</td>
</tr>
</tbody>
</table>

In the following, we summarise further advice for practice along the lines of enabling environment, implementation and individual farmer conditions. Many documents are available which provide key advice based on experience, e.g. a contract farming checklist (Wageningen UR et al. 2009). Also see Holtland, 2017, ActionAid 2015; Will, 2015 (vol. 1+2); Hobden & Sands, 2017.

*Enabling environment*

- Securing buy-in and support from local authorities and community leaders;
- Leveraging NGO or other third-party support in program design and implementation, either at inception or when adding new program components;
- Leveraging NGO support to establish partnerships with local financial partners such as banks, microfinance institutions or local savings groups, in order to secure third-party input financing and structure risk-sharing mechanisms;

*Implementation*

- Nearly all large-scale, long-standing outgrower schemes operate in cash crops, rather than staple crops, most likely because local markets are less robust for cash crops, which limits side selling opportunities.
- Employing organizational models that allow for high levels of farmer-company interaction to build trust and effectively transfer knowledge and skills;
- Providing training on good agricultural practices, directly or via third parties, typically leveraging lead farmer models;
- Utilizing formal contracts with the following elements:
  - Clear explanation of quality specifications;
  - Expected volume based on the size of the farm and input package;
- Minimum guaranteed price or an indicative price based on quality grades; and
- List of pre-financed inputs with transparent pricing and payment deducted from crop purchase.

**Individual farmer**

- It helps if farmers cannot sell on the side and thereby avoid repayment of input costs. Farmers must face effective repayment incentives, which means that they incur a loss of earnings if they default on a loan. This requires that the crop provides them with better returns than other income earning opportunities.
- Younger, less experienced growers were more likely to grow under contract. (Minot, 2014)
- Risk attitudes are found to be a significant determinant of contract farming, with more risk tolerant farmers preferring contracts.
6 Barriers addressed

The success of OS/CF is affected by barriers such as price volatility, lack of farmer effective and inclusive farmer organizations, insecure land rights, limited land size, etc.

In terms of OS/CF (potentially) positively impacting on barriers, three barriers stand out.

Table 3 Barriers affecting the success of OS/CF.

<table>
<thead>
<tr>
<th>Example barriers (in order of priority in relation to OS/CF – high to low)</th>
<th>How addressed through practice/intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price</strong> – low prices and high price volatility</td>
<td>Though only potentially so, depending on who bears the risk of price volatility: the company or the producer. If it is the producer, they may end up in a worse situation than before if prices are low at the time of delivery. If the company provides price stabilization, this positively addresses the issue of price volatility</td>
</tr>
<tr>
<td><strong>Inputs (broadly speaking)</strong> – smallholder farmers lack broad-based access to support systems needed for greater commercial opportunities including access to finance, infrastructure and extension services</td>
<td>In most cases, the contractual arrangement also includes provisions regarding inputs, knowledge, technologies, and other services.</td>
</tr>
<tr>
<td><strong>Role of governments</strong> – policy agendas in many countries posing barriers for smallholder farmers; policy bias towards large-scale agriculture; reduction in rural ag. investment and extension services; ineffective and politicized institutions (e.g. price support)</td>
<td>Though a government may have a bias towards large-scale agriculture, the outgrower schemes mimic that type of agriculture so that when farmers have organized themselves, small farms will be in the picture for the government.</td>
</tr>
</tbody>
</table>
7 Questions for further research

The following questions, if answered, could help buyers like Mars implement interventions like this one:

- How to develop minimum requirements for contractual arrangements (in specific contexts) so as to ensure that smallholders will benefit from this while at the same time mitigating/addressing potential side-effects such as effects on nutrition, resilience (dependency), etc.?
- How to engage critical voices from society in developing an approach to OS/CF which addresses the main critiques on OS/CF?
- How to combine OS/CF with other types of practices/interventions to create positive synergies and to address shortcomings of OS/CF as well as shortcomings of the other practices/interventions?
- How to work with/help put in place appropriate leadership capacity to take this forward in strategic and responsible ways?

The following questions, if answered, could improve this intervention’s impact on income; women; cocoa, mint, and rice value chains; scalability; or sustainability:

- Which existing guidance on OS/CF impact, scalability and sustainability provided in literature is most suitable to guide new investments in OS/CF?
- Can such guidance be used as is, or is there a need to further develop this towards concise guidance for those leading the investment in OS/CF programme?
- What reflexive monitoring framework should guide such programme to enable picking up early warning signals regarding common pitfalls in OS/CF, specifically in relation to how this is working out in terms of impact and sustainability?

The following questions would be good to ask in any design stage of an OS/CF arrangement:

- Does producing more cash crops mean cutting back on production of staples for home use?
- Is additional income from agricultural sales spent on food, health, water and sanitation?
- Does commercial farming raise workloads to the detriment of child care?

(Source: Wiggins and Keats, 2013)
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The Centre for Development Innovation works on processes of innovation and change in the areas of food and nutrition security, adaptive agriculture, sustainable markets, ecosystem governance, and conflict, disaster and reconstruction. It is an interdisciplinary and internationally focused unit of Wageningen UR within the Social Sciences Group. Our work fosters collaboration between citizens, governments, businesses, NGOs, and the scientific community. Our worldwide network of partners and clients links with us to help facilitate innovation, create capacities for change and broker knowledge.

The mission of Wageningen UR (University & Research centre) is ‘To explore the potential of nature to improve the quality of life’. Within Wageningen UR, nine specialised research institutes of the DLO Foundation have joined forces with Wageningen University to help answer the most important questions in the domain of healthy food and living environment. With approximately 30 locations, 6,000 members of staff and 9,000 students, Wageningen UR is one of the leading organisations in its domain worldwide. The integral approach to problems and the cooperation between the various disciplines are at the heart of the unique Wageningen Approach.