



LEGEND

*Land: Enhancing Governance
for Economic Development*



Land governance and inclusive business in agriculture: advancing the debate

Laura German, Lorenzo Cotula, Katie Gibson, Anna Locke,
Anya Bonanno and Julian Quan

**State of
the Debate
Report**

October 2018

ODI

203 Blackfriars Road
London SE1 8NJ

+44 (0) 20 7922 0300
info@odi.org.uk

odi.org
[odi.org/facebook](https://www.facebook.com/odi.org)
[odi.org/twitter](https://twitter.com/odi.org)

Readers are encouraged to reproduce material from ODI publications for their own work, as long as they are not being sold commercially. ODI requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of ODI.

This work is licensed under a Creative Commons Attribution-NonCommercial Licence (CC BY-NC 4.0).

Cover photo: Farmers in Ethiopia. © Kristina Stefanova, USAID

Contents

List of boxes	4
Acknowledgements	5
List of abbreviations	5
Executive summary	6
1. Introduction	8
1.1 Aim of the report	8
1.2 Existing reference points on inclusive business	8
1.3 Approach and methodology	9
1.4 Outline	10
2. Stakeholder perspectives on inclusive business in agriculture	11
2.1 Pillar 1: Effective arrangements for voice and representation	11
2.2 Pillar 2: Inclusive and fair value chain relations	12
2.3 Pillar 3: Respect for land rights and inclusive tenure arrangements	14
2.4 Pillar 4: Employment creation and respect for labour rights	15
2.5 Pillar 5: Contribution to food security	16
2.6 Main findings	17
3. Evidence review: opportunities and constraints to inclusiveness	18
3.1 Selected value chain types	19
3.2 Case study: high-value horticultural products in the East African and Andean highlands	20
3.3 Case study: oil palm in Southeast Asia and Colombia	22
3.4 Case study: sugarcane in Brazil and eastern and southern Africa	25
3.5 Main findings	28
4. Key lessons and ways forward for the land governance agenda	30
4.1 Assess progress against cross-cutting features of inclusiveness	30

4.2 Target areas of agreement to bridge differences and build alliances	30
4.3 Consider how value chain factors affect options to advance inclusiveness	30
4.4 Promote public action to shift industries towards inclusiveness	31
4.5 Land governance: promote smallholder ownership and public participation	31
4.6 Work towards industry-wide consensus on what inclusiveness means in practice	32

References	33
------------	----

List of boxes

Box 1. Models of smallholder engagement in Southeast Asia	22
--	----

Box 2. Case studies on policy and smallholder inclusion	23
--	----

Box 3. Models of smallholder integration in sugarcane production in eastern and southern Africa	27
--	----

Acknowledgements

We would like to thank all those who made their time available to us for interviews and those who supported the production of this report.

List of abbreviations

AFA	Asian Farmers' Association for Sustainable Rural Development
CFS	Committee on World Food Security
CSR	Corporate Social Responsibility
EAFF	East Africa Farmers' Federation
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FPIC	Free, Prior and Informed Consent
ILC	International Land Coalition
LEGEND	Land: Enhancing Governance for Economic Development
NES	Nucleus Estate Smallholder [model]
NGO	Non-Governmental Organisation
RAI	Principles for Responsible Investment in Agriculture and Food Systems
RSPO	Roundtable on Sustainable Palm Oil
SALCRA	Sarawak Land Consolidation and Rehabilitation Authority
SNV	Stichting Nederlandse Vrijwilligers - Netherlands Development Organisation
UNODC	UN Office on Drugs and Crime
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security
WBCSD	World Business Council for Sustainable Development

Executive summary

There is growing business interest in investing in agriculture in low and middle-income countries, just as several governments are looking to attract foreign investment to promote economic development. Concerns that investments might displace small-scale producers have raised questions about how to structure businesses in inclusive ways so as to promote equitable and sustainable development in rural areas.

While ‘inclusive business’ is often conceived of in terms of smallholder involvement in commercial agriculture, any gains for smallholders, employees and other affected people depend on the process and terms of inclusion. Clear criteria are therefore needed to assess inclusiveness in business relations. Yet there is no global policy instrument that embodies international consensus on those criteria.

This report reviews the state of the global debate on inclusiveness in agricultural investments and analyses what ‘inclusiveness’ means to different value chain actors. We gathered a broad cross-section of opinion and found fairly widespread agreement on some key features of inclusiveness that require progress, but also significant divergence on what those features mean in practice, on levels of ambition and on how to deliver change.

We distilled the areas of agreement into ‘five pillars of inclusive business’ and tested them against three crop-specific case studies to evaluate the inclusiveness of existing value chains for each pillar. Based on this analysis, we set out how governments, producer organisations, businesses and development agencies can take action to improve inclusiveness.

Five pillars emerged from stakeholder perspectives on the meaning of inclusive business in agriculture:

1. Effective arrangements for voice and representation
2. Inclusive and fair value chain relations
3. Respect for land rights and inclusive tenure arrangements
4. Employment creation and respect for labour rights
5. Contribution to food security

These pillars reflect the type of relationships agribusinesses forge with value chain actors and other impacted people. This is not to suggest that there is widespread consensus on the importance and meaning of each pillar, as some groups favoured some pillars over others (most notably, a strong emphasis on Pillars 1 to 3, but not Pillar 4, among regional farmers’ federations) and significant variations were found in what they mean to different stakeholders.

Use of the identified pillars to evaluate evidence on the inclusiveness of selected value chains led to a few key lessons.

The key features of value chain relationships are as important as the business model in assessing inclusiveness.

There is a tendency to focus on business models when researching or evaluating inclusiveness, often contrasting collaborative arrangements between small-scale producers and agribusinesses to the risks inherent to large-scale plantations. Yet business practices can vary greatly within the same model and lead to very different outcomes. Ill-designed collaborative models may establish unfair relations, involve coerced participation, create dependence on one buyer, or push disproportionate risk onto smallholders. A cross-cutting approach that looks at the key features of value chain relationships (around the five pillars of inclusive business) enables the evaluation of inclusiveness within each business, and allows for more nuanced recommendations on how to enhance inclusiveness.

Assess outcomes as well as processes.

Good procedures are the foundation of any inclusive business, but success should not be benchmarked against processes alone. Effective consultations before an investment, for example, are widely considered an essential precondition of inclusive business. But they do not guarantee that communities are better off after an investment – for example, that their land rights are upheld and their food security is improved (Pillars 3 and 5). Therefore, rigorous assessments of inclusiveness would need to consider the five pillars in both their process and outcome dimensions. Business arrangements can also produce different outcomes for different social groups and undermine livelihoods for some or exacerbate inequality. For example, a set-up that works for commercially oriented smallholders may not be inclusive of poorer farmers. Standards of inclusiveness and their assessment should therefore include outcome indicators, identify whether those outcomes are positive or negative, and for whom.

The five pillars of inclusive business benchmark inclusiveness against a sliding scale of ambition, but may involve certain trade-offs.

The five pillars provide a framework for assessing and enhancing inclusiveness. However, trade-offs can arise between the different pillars. For example, large plantations may offer the potential to generate jobs in the formal sector, but can pose high risks for land rights and food security. As such, progress against Pillar 4 on labour rights (i.e. job creation and quality) may come at the cost of crucial dimensions of Pillars 3 and 4. Depending on how they are managed, these trade-offs can undermine inclusiveness. There is widespread support for the notion that, in assessing inclusiveness, employment creation alone cannot make 'inclusive' a business established through land rights violations.

The traits of each crop and crop-specific market dynamics affect the structure of value chains and the most effective routes to inclusiveness.

There are inherent opportunities and challenges for enhancing inclusiveness in different value chains due to the characteristics of the crop and wider market trends. For example, labour-intensive crops that are hard to mechanise present greater incentives for agribusiness firms to engage smallholders and workers (Pillars 2 and 4), yet the quality of that engagement is highly variable and the trend towards

ever-greater production and processing efficiencies has undermined historical gains in inclusiveness in some cases.

In addition, market restructuring has raised the bar for smallholder participation. Any interventions to enhance inclusiveness would need to address the real-world structural factors that influence value chain relations. Without an understanding of how crop and value chain traits and market trends shape opportunities and constraints, it is difficult to advance inclusiveness in practice or develop effective public policy and programming.

At the same time, evidence shows that effective public action can make a considerable difference in promoting inclusiveness in a given commodity sector and geographic context. This compounds the case for public policies that can help to push entire industries in a more inclusive direction.

Land governance is as a key factor in shaping how businesses are structured, impacting the degree of inclusiveness across all five pillars.

Land governance is central to inclusiveness – control over land has a bearing on each of the five pillars of inclusive business. Where rural people have secure control over land and resources, businesses have greater incentives to work with them. Supporting value chain relations in which small-scale rural producers retain control over land is an important part of strategies to promote inclusiveness that relies less on the goodwill of individual companies, and more on institutional frameworks that make inclusiveness the preferable business choice.

1. Introduction

Fluctuating commodity prices and growing concern about global food and energy security have intensified private sector interest in agricultural investments in low and middle-income countries. This resonates with the 2030 Agenda for Sustainable Development, which emphasises the role of private investment.¹ But it also compounds the challenge of securing rural people's land rights and ensuring that investments respond to local development needs. In this context, how can private investment in agriculture not only respect human rights and the environment, but also promote inclusive rural development?²

'Inclusive business' approaches that more equitably share value with low-income groups have become a key concept in efforts to leverage private investment for rural development. Businesses committed to contributing to development goals have explored new ways of working with low-income groups, development agencies have supported new forms of public-private partnerships to promote inclusive agricultural value chains, and regional farmers' federations are working to strengthen local value capture by supporting favorable contracts with buyers for strategically chosen crops.³

Yet there is little agreement on what 'inclusive business' means in agriculture and how to promote it in practice. Views differ on how far inclusiveness extends, the roles and responsibilities of key actors, and even what agricultural development looks like and how to achieve it. There is also no consensus on what inclusiveness means in relation to land governance – can a business be considered inclusive if it acquires land, or is continued smallholder or pastoralist control over land a precondition for inclusive business? As promoting inclusiveness often requires collaboration between diverse actors, from rural producer organisations and businesses to policymakers and development agencies, this lack of agreement can undermine efforts to explore solutions for policy and practice.

1.1 Aim of the report

This report aims to address gaps in existing research and guidance on inclusive business in agriculture. It seeks to contribute conceptual clarity and strategic direction to the conversation, outlining next steps in policy and practice to promote inclusive business models. The report takes stock of the global debate, exploring how diverse stakeholders perceive inclusive business, and highlights areas of disagreement and emerging consensus. It also explores the factors that influence inclusiveness in business relations, focusing on opportunities and constraints in different types of value chains. Selected case studies are used to illustrate and assess concepts using real-life situations. Due to the close connection between land governance and inclusive investment in agriculture, the report pays particular attention to ways forward for the land governance agenda.

1.2 Existing reference points on inclusive business

The Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT) call on states to 'support investments by smallholders as well as public and private smallholder-sensitive investments'. The guidelines also include procedural safeguards on participation, consultation, and transparency, which can help promote more inclusive business relations. Similarly, the Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI) refer to 'inclusive economic development' as a key parameter of responsible investment, over and above traditional concerns about 'doing no harm'.

Beyond these general pointers, there is no global policy instrument that embodies international consensus on inclusive business in comprehensive terms. However, a vast and growing body of evidence is shedding light on important dimensions of inclusive business in agriculture. Amidst a wave of large-scale agribusiness deals in low and middle-income countries,⁴ research has pointed to the wider range of models investments could take and

1 <https://www.un.org/sustainabledevelopment/globalpartnerships> See also NEPAD, 2001; UN, 2015.

2 SNV and WBCSD, 2008; Vorley and Proctor, 2008; Vermeulen and Cotula 2010; Cotula and Leonard, 2010; Porter and Kramer, 2011; Kelly et al., 2015; Woodhill / GDPRD, 2016; Rappoldt et al., 2017; Chamberlain and Anseeuw, 2017.

3 Thorpe and Maestre, 2015; Rankin et al., 2016.

4 Anseeuw et al., 2012a and b.

5 Vermeulen and Cotula 2010.

has called for the assessment of inclusiveness against core business features (control of assets, influence in decision making, distribution of risks and returns), rather than corporate philanthropy at the fringes.⁵

Analysis of different types of business models (defined here as the way in which businesses create and capture value within a market network of producers, suppliers and consumers)⁶ provides important insights on inclusiveness in value chains. Empirical research has assessed the socio-economic outcomes of contract farming schemes,⁷ partnerships that include smallholders as shareholders in joint ventures,⁸ and a wide range of market access arrangements.⁹ Many studies highlight how investments in large-scale plantations, alone or in combination with outgrower schemes, affect local livelihoods,¹⁰ and empirical research has started to compare alternative models of commercial agriculture in more systemic terms.¹¹

Yet there have been few attempts to ground debates in the perceptions, concerns and aspirations of those most directly affected by investments – particularly smallholders, their organisations and private sector operators. There has also been little analysis of the factors that affect opportunities and constraints in making business relations more inclusive. Moreover, while the business model concept captures how a business is organised, an exclusive focus on models risks glossing over the great diversity of arrangements that exist within each model. It can also obscure real-life factors that shape opportunities and constraints and result in unrealistic dichotomies between models labelled as either inclusive or exclusionary. Interrogating the core pillars of inclusive business relations would enable the assessment of key characteristics within and across business models, while also providing a deeper understanding of how features of specific value chains influence opportunities and constraints to greater inclusiveness.

1.3 Approach and methodology

The report rests on a two-fold approach. Firstly, it aims to reflect diverse voices in public debates about inclusive business in agriculture. To this end, an analysis of stakeholder perspectives was carried out to understand how diverse actors active in agricultural development policy and practice understand the concept. This work involved reviewing websites and publications of selected

actors from the private sector, non-governmental organisations, multilateral agencies, international financial institutions and donor agencies, and – given the more limited amount of published material – personalised exchanges (emails, interviews) with staff from regional federations of rural producer organisations.

Time constraints limited the number of perspectives that could be considered. Priority was given to organisations that have been particularly active in the debate. The analysis was primarily conducted in early 2017 and reflects sources available at the time. The perspectives reviewed are not necessarily representative of all views within the organisations covered, or of the wider stakeholder groups the organisations can be said to belong to. However, efforts were made to ensure the research captured the existing diversity in the overall set of perspectives.

Secondly, a literature review distilled evidence on crop and market characteristics that influence the current structuring of value chains, their implications for inclusiveness, and options for promoting greater inclusiveness for selected types of value chain. Interviews with industry practitioners and independent analysts provided complementary insights. This work aimed to ground the conceptual discussion in the real-life challenges that affect the inclusiveness of business relations in agriculture.

The value chain types were selected to ensure diversity in key variables capable of influencing business configurations. These variables are discussed further below. In general terms, they include: crop features (agronomy, perishability, labour intensiveness), technology (scope for mechanisation), investment (structure of capital injections) and market (domestic/export, quality standards, chain of custody requirements). Due to space limitations, staple crops were not included in the final report. As such, the value chain analysis primarily focuses on prospects for enhancing inclusiveness in agribusiness-led value chains.

Throughout the analysis, the question of inclusiveness is treated as a matter of degree, rather than a binary yes/no outcome. In addition, the report recognises the importance of understanding social differentiation, in line with the growing evidence that any business arrangement is likely to produce differentiated outcomes for different groups. In this context, the question of whether a business is inclusive needs to be reframed as ‘inclusive for whom, and in what ways?’ It also requires due attention to those who may not

6 Vorley et al., 2008.

7 German 2011; Glover and Kusterer, 1990; Little and Watts, 1994; Eaton and Shepherd, 2001; Guo et al., 2007; Oya, 2012; Prowse, 2012.

8 Cooke et al. 2011; de Koning and de Steenhuijsen Piters, 2009; Lahiff et al., 2012; Mujenja and Wonani, 2012.

9 Vorley, 2013; Wiggins and Keats, 2013.

10 Hermann and Grote 2015; Obidzinski et al. 2011; Potter 2015; Schoneveld et al., 2011.

11 Hall et al., 2017.

benefit from, or may in fact be disadvantaged by, value chain relations.

Finally, the report recognises the role of smallholder farming systems in underpinning a host of local-to-global social, economic and environmental values. As such, its examining inclusiveness in value chain relations that involve agribusiness investments does not reflect a choice about the most effective or desirable agricultural development pathways. An analysis of ways to support farmer ownership in value chains is also sorely needed, and should form part of the global discussion on inclusive business as advocated for by regional farmer federations. Similarly, this report acknowledges – but does not directly engage with – the extensive and complex debates about the opportunities and risks inherent in cash crop- and export-oriented strategies. Instead, it focuses on the key aspects of business relationships that determine the distribution of influence, risks and returns between companies, smallholders and other stakeholders for different types of value chain.

1.4 Outline

The remainder of the report is structured in three main sections:

- Section 2 summarises stakeholder perspectives on inclusive business in agriculture, identifying the principal areas of agreement and disagreement on what makes a business more or less inclusive.
- Section 3 presents findings from the value chain analysis and three crop case studies, drawing out the constraints and opportunities for achieving key pillars of inclusive business in practice.
- Section 4 distils lessons and their implications for key leverage points and possible ways forward, setting out a framework of aspirations for promoting more inclusive business in agriculture.

2. Stakeholder perspectives on inclusive business in agriculture

This section analyses of how diverse stakeholders discuss and view inclusive business in agriculture. Unlike many existing studies that take different business models as their main entry point, this report reviews stakeholder perspectives on *key pillars* that make different types of investments more or less inclusive. Broadly speaking, these pillars concern the type of relations businesses create with different but potentially overlapping stakeholder groups, such as local tenure rights holders; suppliers including smallholders; employees; and affected communities. The analysis identifies areas of cross-stakeholder agreement, disagreement and varying emphasis in relation to these pillars.

Based on stakeholder perspectives, we identified five key pillars of inclusive business:

1. **Effective arrangements for voice and representation:** the extent to which rural actors are effectively represented and heard at different stages of the investment process.
2. **Inclusive and fair value chain relations:** the inclusion of smallholders in the value chain, and the fairness of the terms of inclusion.
3. **Respect for land rights and inclusive tenure arrangements:** respect for local and customary tenure rights and the active promotion of equity in tenure arrangements and/or fair partnerships with tenure rights holders.
4. **Employment creation and respect for labour rights:** the quality and quantity of employment opportunities created by the business, including respect for labour rights in the business and throughout the value chain.
5. **Contribution to food security:** the impacts of business activities on food security within affected communities.

Many of the sources reviewed also stressed the need for businesses to respect human rights, comply with national and international law and standards, and identify and mitigate the negative social and environmental impacts associated with business activity. However, this report considers these attributes part and parcel of standard (ethical) business practice rather than a defining characteristic of inclusive business *per se*.

Stakeholders also highlighted features of the wider legal, governance and market context, stressing the importance of an ‘enabling environment’ for businesses to operate in inclusive ways or to tilt the playing field in favor of smallholders. While such contextual factors can enable or constrain inclusive businesses and have been central to historical progress, they are not a central focus of this analysis.

2.1 Pillar 1: Effective arrangements for voice and representation

There appears to be broad-based agreement among stakeholders on the need for local participation, representation and voice at the different stages of investment. Most of the sources reviewed recognise that rural actors – variously identified as local communities, local and customary rights holders, employees, and smallholders – should have a strong voice in relations with agribusiness companies; that part of this process should involve informing and negotiating with local stakeholders about the key features of the proposed investment; and that these processes and its results should be accountable to less empowered actors. There was also broad agreement on the need for equitable distribution of voice and power along the value chain, and gender equity in representation and voice.

Areas of differential emphasis or disagreement included the following:

- The relative emphasis on specific steps or procedures that advance voice and representation,¹² as opposed to the outcomes that should be achieved through such processes, such as decisions reflecting the rights, needs and aspirations of those affected, or effective information assimilation, negotiation or independent oversight (a strong focus of NGOs and rural producer organisations, but also of some private sector actors).
- Whether Free, Prior, and Informed Consent (FPIC), or looser consultation arrangements, should be the mechanism for ensuring local representation and voice; and whether FPIC should apply to all affected stakeholders or to indigenous people only, in line with international law.
- The relative emphasis on gender and social differentiation (with greater emphasis overall on the former), including women's empowerment within family businesses,¹³ a gendered approach to consultations,¹⁴ and gender-equitable social safety nets and grievance mechanisms.¹⁵
- The stages of investment and types of decisions where voice and representation should be considered, including the conditions under which investments are approved; participation in investment design and monitoring;¹⁶ and the management and conduct of the business itself, whether in community-investor partnerships or in value chain relations.¹⁷

To illustrate this final point, producer organisations such as the Asian Farmers' Association for Sustainable Rural Development (AFA) and the Eastern Africa Farmers Federation (EAFF) stress the participation of men and women farmers not only at investment approval stage but also in the enterprise's key decisions, including "contract formulation, setting the prices of agricultural produce, and in managing and overseeing the operations of the enterprise."¹⁸ These organisations also see smallholder

ownership and control over land and production assets as a core feature of inclusive business.¹⁹

Summary:

1. There was a high degree of consensus on the need for businesses to ensure that local stakeholders have a voice in business processes. Perspectives on the degree and stages of participation range from consultative processes at approval stage, with basic project information disclosed, to more rigorous FPIC exercises or complete involvement in key business decisions throughout the project lifecycle.
2. Considerable divergence was found on the scope and duration of arrangements for voice and representation (e.g. investment approval versus business relationships); key features of those arrangements (e.g. FPIC versus meaningful consultation); and whether inclusiveness should be measured not just by procedures but also by the outcomes achieved through them.

2.2 Pillar 2: Inclusive and fair value chain relations

All the sources reviewed placed a strong emphasis on the need for inclusiveness in value chain relations. Among the many value chain actors, smallholders and local communities were of primary concern to the stakeholders reviewed, who emphasised support for smallholders to overcome constraints, increase productivity, enhance market access, and/or become economically viable business partners.²⁰

The analysis revealed varying emphasis on practical dimensions:

- There was a spectrum of opinion on leadership and ownership in value chains. At one end was the view that agribusinesses are the lead actors in making business inclusive;²¹ at the other was the definition of inclusive business as farmer owned, initiated or led.²²
- Several NGOs and producer organisations (SNV, Oxfam, AFA) placed particular emphasis on the distribution of risks and rewards among value chain

12 World Bank 2014a, 2014b.

13 SNV 2015.

14 SNV 2015.

15 Interlaken Group and RRI 2015.

16 FAO 2015.

17 AFA 2013; EAFF pers. comm.

18 AFA 2013: 5.

19 AFA 2013; EAFF pers. comm.

20 AFA n.d.; FAO 2015; Olam 2015; SNV 2015; WBCSD 2016.

21 WBCSD 2016.

22 AFA 2013; EAFF pers. comm.

actors, with inclusive relations hinging on fair and transparent pricing arrangements, as well as effective collaboration, communication and transparency along the value chain.

- Some sources stressed the need for the business to be viable, scalable and replicable,²³ and highlighted the importance of making social inclusion part of the business model, rather than an ancillary activity.²⁴
- Several perspectives highlighted value chain features most likely to enhance social inclusion, such as the characteristics of the market (fair, transparent, diverse); the qualities of the crop/commodity (potential for smallholder commercialisation); the types of services provided to smallholders, particularly women; or trading arrangements that make it easier for smallholders or enterprises to supply buyers.
- Risk reduction was seen as a factor in inclusive value chains for small-scale actors. This was a particularly prominent issue for NGOs, the FAO, the World Bank, farmer federations and the WBCSD, in particular transparency on risks and mechanisms for minimising risk to smallholders. The latter included diversified income streams and market outlets; validation of business models before engaging smallholders; the freedom to opt in or out of contractual arrangements; and mechanisms to reduce farmers' vulnerability to drought, debt and price volatility.
- While there was broad agreement that smallholders should be prioritised in efforts to improve inclusiveness in value chains, perspectives differed on the role of poorer farmers, including subsistence-oriented farmers, and the impacts that commercial activities can have on them. Some stakeholders placed poorer farmers at the centre of their concerns,²⁵ and others emphasised inclusion of those with the capacity and potential to succeed in commercial farming²⁶ while providing pathways out of agriculture for the rest.²⁷

- Some sources considered value chain actors beyond smallholders, stressing the empowerment of women entrepreneurs and employees; small- and medium-sized enterprises throughout the value chain,²⁹ or a focusing on consumers as key beneficiaries through the provision of affordable, quality goods and services.³⁰
- Several sources gave prominence to gender equity in value chains, including sharing benefits equitably among women and men within the business;³¹ closing gender gaps;³² and ensuring women are not further marginalised by value chain activities.³³ Approaches to achieving this ranged from enhancing women's access to inputs and tailored extension services, to building soft skills to transform gender relations in households and markets³⁴ and involving women in agricultural and business training.³⁵

While most sources emphasised the creation of shared value, some international agencies and private sector stakeholders focused on more conventional CSR approaches as a part of inclusive value chain relations, for instance contributions to health, education and infrastructure,³⁶ and youth, sports, arts and culture.³⁷

Summary:

1. There was broad agreement that fair value chains are an important part of inclusive business in agriculture, and that this is primarily centred on the inclusion of smallholders and their wider communities.
2. Different perspectives emerged on what inclusiveness in value chain relations looks like in practice. Positions varied on who should be included (as a crude simplification, commercially oriented smallholders versus poorer households); the key sites of inclusion in value chains (production only, or also processing, trade and consumption); how it plays out (e.g. as CSR or within the core business, for example through

23 FAO 2015; World Bank 2014b.

24 WBCSD 2016.

25 Oxfam 2014 and 2015, ILC 2016.

26 FAO 2015, IFC 2016b.

27 IFC 2016b.

28 IFC 2016a; 2016b.

29 IFC 2016b; Woodhill 2016.

30 World Bank 2014b; WBCSD 2016.

31 UNECA 2014.

32 IFC 2016a & 2016b.

33 UNECA 2014.

34 SNV 2015.

35 IFC 2016b, Olam 2015.

36 World Bank 2014b; CFS 2014; FAO et al. 2010; Olam 2015.

37 Sime Darby 2014a, 2014b.

fair pricing arrangements); and the very structuring of value chain relations (farmer-owned versus led by business with some participation or representation of smallholders).

2.3 Pillar 3: Respect for land rights and inclusive tenure arrangements

Stakeholders viewed respect for existing tenure rights over land, water and natural resources as the foundation for ensuring agricultural investments do no harm and generate local benefits, in line with international human rights law, and guidelines such as the VGGT and the CFS-RAI. This also applies to inclusive business, though several stakeholders went further to stress the active promotion of inclusiveness in tenure relations and related decision-making.

The following variation was found in stakeholder positions:

- Important differences in opinion on what constitutes respect for land rights: the control of smallholders, indigenous people, and customary tenure rights holder over land;³⁸ responsible land transactions as a means of respecting land rights, including procedures for consultation, resettlement and compensation;³⁹ or adherence to international guidelines, such as the VGGT.⁴⁰
- Another important difference is the relative emphasis placed on the procedures to be followed during land acquisitions,⁴¹ versus the desired outcomes – such as ensuring no one ends up worse off,⁴² or that transactions do not lead to excessive land concentration.⁴³
- A number of organisations (with the notable absence of the private sector) stressed equal land rights for women, and in some cases for youth,⁴⁴ as being an essential feature of inclusive business relations. This issue is again framed slightly differently by different stakeholders, from women taking an equal part in decision making

about land,⁴⁵ to equal control over land and the benefits from land or land-based investments⁴⁶ and women's ability to defend their land rights.⁴⁷

The sources reviewed were largely silent on other arguably relevant questions. In relation to value chain relations with smallholders, for example, regional farmer organisations suggested land should be owned and controlled by the growers,⁴⁸ but other sources did not elaborate on the relative merits of outgrower (farmers cultivating own land) versus ingrower (farmers cultivating company land) schemes, tenure security for ingrowers, or gender equity in outgrower and ingrower arrangements. Other issues such as reserving land for customary uses alongside new value chain relationships, residual community rights of access and seasonal use of company land, and profit sharing or joint ownership arrangements based on land-for-equity schemes also received limited attention in the materials reviewed.

Summary:

1. There is broad consensus that all businesses — inclusive or otherwise — should respect local and customary tenure rights according to international law and guidelines.
2. There is agreement that inclusive business goes beyond merely doing no harm to local rights holders, but views differ on what this entails. Some stakeholders see continued control over land by smallholders as a prerequisite for inclusive business, others advocate applying FPIC beyond the circumstances envisaged by international law and guidance (extending it to non-indigenous communities or beyond land to business relations), yet others focus on aspects that primarily relate to fairness in wider land governance.
3. While most of the sources reviewed (with the exception of regional farmer federations) acknowledge the possibility of responsible land transactions, the relative emphasis on the nature of these transactions and ways to preserve local control over land varies considerably –

38 ILC 2016; Oxfam 2015; AFA 2013; EAFF n.d.

39 FAO et al. 2010.

40 Interlaken Group and RRI 2015.

41 World Bank 2014b; Interlaken Group and RRI 2015.

42 EAFF n.d.

43 Oxfam 2014; ILC 2016.

44 SNV 2015.

45 ILC 2016; UNECA 2014.

46 ILC 2016; UNECA 2014.

47 ILC 2016; UNECA 2014.

48 AFA 2013; EAFF pers. comm.

suggesting diverse views on what respect for land rights means.

4. Little attention appears to have been paid to relevant issues such as tenure security for ingrowers, enabling co-existence of customary uses alongside new value chain relationships to cater for multiple livelihood needs, or residual rights of access to company land.

2.4 Pillar 4: Employment creation and respect for labour rights

Employment is one of the oft-cited benefits of private sector investments in agriculture, and employment outcomes are often identified as an important measure of inclusiveness in relation to investments. Many stakeholders saw employment creation as key to inclusive business, either in general terms,⁴⁹ or with respect to specific beneficiary groups, such as women and youth.⁵⁰

Certain stakeholders elaborated on these dimensions, including emphasis on women's employment at different stages along the value chain and in non-traditional occupations,⁵¹ and preferential employment for members of communities directly affected by business activities or land transactions.⁵² Some sources highlighted overcoming barriers to entering the labour force, for example through support to working parents and mothers (e.g. paid maternity leave, employer-supported childcare, flexible working arrangements)⁵³, or through dedicated training programmes to assist local communities,⁵⁴ women⁵⁵ and youth⁵⁶ in accessing employment opportunities.

Stakeholders who emphasized labour dimensions of inclusiveness agreed that inclusive labour relations necessarily encompass job quality. While some materials accentuated compliance with national legislation⁵⁷ and international conventions,⁵⁸ others placed emphasis on additional aspects, such as:

- Adequate remuneration and/or living wages for all⁵⁹ or for vulnerable groups.
- 'Zero harm' goals for employee health and safety⁶⁰ or a gendered approach to occupational health and safety, such as safe transportation, strict rules on sexual harassment, or electronic wage payment systems.⁶¹
- Access to basic health services, and worker-manager communication and grievance mechanisms⁶²
- Working conditions that do not increase women's vulnerability or labour burden;⁶³ support to working parents and mothers (e.g. paid maternity leave, employer-supported childcare, flexible working arrangements);⁶⁴ and support to women's leadership.⁶⁵
- Management systems to improve job quality, such as transparent and merit-based human resource policies and gender-disaggregated monitoring and reporting frameworks.⁶⁶
- Extending responsible labour relations to upstream and smallholder suppliers.⁶⁷

Employment creation as a pillar of inclusive business was most explicitly supported by private sector and international finance stakeholders,⁶⁸ and did not feature in the inclusive business perspectives expressed by regional

49 World Bank 2014b.

50 Olam 2016; Oxfam 2015; SNV 2015; UNECA 2014; see also IFC 2016a.

51 IFC 2016a, 2016b.

52 Interlaken Group and RRI 2015.

53 IFC 2016a.

54 World Bank 2014b, Sime Darby 2014a, 2014b.

55 IFC 2016a, 2016b.

56 SNV 2015.

57 Sime Darby 2014a, 2014b.

58 Olam 2016.

59 CFS 2014; World Bank 2014b.

60 Sime Darby n.d. <http://www.simedarby.com/sustainability/contributing-to-a-better-society/safety-and-health/safety-and-health>.

61 IFC 2016a; Sime Darby 2014a, 2014b.

62 IFC 2016a; Sime Darby 2014a, 2014b.

63 IFC 2016a; UNECA 2014.

64 IFC 2016a.

65 IFC 2016a; Oxfam 2015; Sime Darby 2014a, 2014b.

66 IFC 2016a.

67 Olam 2016; World Bank 2014a.

68 IFC 2016a; Sime Darby 2014a, 2014b.

farmer federations. It is important here to note the possible trade-off between advancing inclusion through job creation in industrial-scale operations and advancing smallholder inclusion through fair value chain relations.

Summary:

1. With the notable exception of regional farmers' federations, there is fairly widespread support for labour relations being an important part of inclusive business in agriculture, including compliance with applicable labour law. Some stakeholders go beyond legal requirements in several important respects (e.g. with regard to aspects of gender sensitivity, or labour relations in value chains).
2. Certain private sector and international financial stakeholders placed particular emphasis on employment creation and labour relations as a basis for inclusive business, relative to other forms of social inclusion.⁶⁹ On the other hand, regional farmer federations stressed the need for smallholders to retain control over land, and they emphasised fair supply chain relations, rather than employment creation in agribusiness-led operations, as the preferred avenue to inclusive business.
3. While job quality and labour issues tend to receive limited attention in public debates on the recent wave of investments in agriculture, the broad support for labour rights provides a solid foundation for dialogue and action to ensure labour rights are upheld in agricultural value chains – without however conflating the job quality agenda with support for production models that solely or primarily rely on employment creation as a basis for inclusiveness.

2.5 Pillar 5: Contribution to food security

Food security has featured prominently in debates on agricultural investment, both as a driver (rising commodity prices, food supply problems and uncertainties, and corresponding expectations surrounding future returns to agriculture),⁷⁰ and consequence of investment. Debates on the consequences have centered on the impacts of different types of agricultural investment, including the crops grown (e.g. food versus biofuels); the land uses that are displaced; effects on food prices; and who is able to access the food grown.⁷¹ Ongoing smallholder access to land they depend on for food security has been a focus of concern, whether due to the acquisition of farmland by agribusiness or to the reallocation of household land in response to new market opportunities.⁷²

Stakeholder perspectives seem to align around the importance of food security as an element of inclusive business in agriculture. Common ground seems particularly evident around some relatively open notions, such as safeguarding or improving local food security, or contributing to resilient local and global food systems.⁷³

However, perspectives vary on the details of what this should mean in practice:

- While some materials focus on mitigating the negative impacts of agricultural investment on food security,⁷⁴ others underline positive contributions to food security goals. This includes the production of safe, nutritious, diverse and culturally acceptable food;⁷⁵ the provision of nutritionally balanced food in the workplace and in communities surrounding plantations;⁷⁶ reduced food waste;⁷⁷ contributions to the national food security strategy of host countries;⁷⁸ access to fortified food and micronutrients;⁷⁹ food security and nutrition for the most vulnerable;⁸⁰ and adequate, nutritious food being available to all people at all times.⁸¹

69 Sime Darby 2014b; IFC 2016.

70 Cotula et al. 2009; Zoomers 2010.

71 Abbott et al. 2008; Cotula et al. 2009; Fischer et al. 2009; Zilberman et al. 2012; Borras et al 2016.

72 Cotula et al. 2009; Hought et al. 2012.

73 CFS 2014; GDPRD 2016.

74 FAO et al. 2010; OLAM 2017; World Bank 2014b.

75 CFS 2014.

76 Olam 2017.

77 CFS 2014.

78 Interlaken Group and RRI 2015.

79 WBCSD 2016.

80 CFS 2014.

81 Oxfam 2014.

82 GDPRD 2016; Oxfam 2014b; ILC 2016.

- Diverse perspectives are also apparent on the routes to achieving positive food security outcomes. In one set of perspectives, inclusive business can play a role in advancing food security by supporting resilient local farming systems, in which smallholders are seen to underpin both rural/urban and local/global food security.⁸² This set of perspectives also stressed safeguarding traditional livelihoods, conserving genetic resources and cultural heritage, and/or the multi-functionality of land for livelihoods, food security, and climate and environmental resilience.
- Another set of perspectives stresses agribusiness-driven productivity increases to feed the world's growing population and provide people with the necessary micronutrients. Attention is paid to the production of affordable, accessible food for urban populations,⁸³ and enhanced access to fortified food and micronutrients.⁸⁴

Some sources refer to the role of policy, as opposed to individual businesses, in mitigating any adverse effects on directly impacted populations.⁸⁵ For example, ensuring 'equivalent access' to food, expanding opportunities for outgrower schemes or off-farm employment, and addressing instability in food supply.

Summary:

1. There is general consensus that inclusive business in agriculture advances food security, but the perspectives reviewed reflect nuanced emphases – particularly on the question of 'food security for whom?' (local communities versus global consumers) and the means through which investments are expected to contribute to food security (agribusiness-driven versus smallholder-led production).
2. Limited attention was paid to the trade-offs involved (e.g. between advancing local food security, which may favour smallholder-led production models, and national and global food security, with commercial-scale production models prioritised) and ways to manage them; intra-community distributional food security effects; and practices to effectively and equitably address food security risks.

2.6 Main findings

There appears to be considerable agreement on the importance of each of the five pillars of inclusive business in agriculture, identified above. Several of these pillars overlap – voice and representation, for example, is important in most aspects of business relations. Promoting inclusive business relations requires addressing issues in all the five

pillars simultaneously, if efforts on one area are not to undermine others. Yet trade-offs could also arise between advancing on one pillar or another. For example, business-led production models often emphasise employment creation as the main route to inclusiveness, whereas other dimensions may be best advanced through smallholder-driven or -centred investments.

Far less agreement or clarity exists on how to translate these pillars into practice. Stakeholder perspectives differ in both degree of inclusiveness and the forms of inclusiveness envisioned. For the former, stakeholder perspectives on each of the pillars may be seen as existing along a spectrum running from minimum criteria to a more ambitious and far-reaching concept of inclusiveness. For example, views on voice and representation range from consultation to more stringent FPIC standards, and may be applied from investment approval and planning (e.g. to accommodate existing land rights, uses or food security concerns by restructuring value chain relations) through to the operation of the project. Views also varied on FPIC's scope of application – whether it should apply to indigenous people only, or to all affected communities.

There was variation in the relative prominence given to the different pillars and how they should be advanced. For example, some private sector sources placed particular emphasis on some pillars (e.g. labour relations) and were relatively silent on others (such as FPIC and more ambitious value chain relations), whereas regional farmer federations (and some civil society) focused on smallholder integration more than inclusive labour relations. These differing priorities ultimately belie, at least in part, different visions for agricultural development – between those who see farmer-led organisations as the key agent in inclusive business, and those who emphasise the role of commercial agribusiness in increasing productivity, improving market access, and creating job opportunities. Yet other stakeholders appear to embrace all possibilities, depending on the context.

This broad-brush overview of stakeholder perspectives highlights the considerable scope that exists for bridging divides, while recognising that some differences are likely to prove difficult to bridge, at least in the short term, due to the fundamentally different visions they reflect. Respect for labour and tenure rights and inclusiveness in value chain relations appear to present more promising scope for dialogue and agreement on new practices. Yet the trade-offs embodied in different visions also suggests the need for a deeper dialogue focused on questions such as 'what does respect for land rights involve?' (e.g. purely procedural, or arrangements that secure certain outcomes for local land users), and 'food security *for whom?*'

83 GDPRD 2016.

84 WBCSD 2016.

85 World Bank 2014b, FAO et al. 2010.

3. Evidence review: opportunities and constraints to inclusiveness

Factors affecting the current structure of value chains and the wider legal and market context will influence opportunities and constraints for increasing inclusiveness in agricultural investment. This section explores these issues for selected types of value chains. The criteria identified in Section 1 (features of the crop, technology, investment characteristics, and market destination and requirements) were used to develop a simple typology of value chain types. Crops were first ranked according to key variables relevant to these four criteria, and then clustered based on similarity, resulting in seven possible types of value chains (Table 1).

The review focuses on three value chains, selected both to reflect a diverse set of conditions but also the sectors that are most prominent in global debates about inclusive business in agriculture:

- Perishables linked to distant markets and requiring strict quality control (Type 3): high-value horticultural products for export markets, including fresh flowers, fruits and vegetables;
- Labour-intensive, hard-to-mechanise crops with high perishability and bulk (Type 5): oil palm;
- Labour-intensive crops with high perishability and bulk which may be fully mechanised (Type 6): sugarcane.

For each value chain, the review focused on specific regions, getting as much regional coverage as possible given the available literature. The available evidence also determined the level of treatment for each of the five pillars of inclusive business.



3.1 Selected value chain types

Capital Outlay	Technical Sophistication	Perishability	Labour intensity ^a	Pre-transport processing required ^b	Cost or technical sophistication of processing	Market Presence/ Focus (L=local; N=national; I=international)
TYPE 1: Staple crops with local and national markets						
Cassava	Low	Medium	Highly variable ^c	No	Medium	L, N, I
Maize	Low	Low	Highly variable ^c	No	—	L, N, I
Rice	Low	Low	High	No	—	L, N, I
TYPE 2: High-input (I), knowledge-intensive (K) or delayed return (D) smallholder crops						
Fresh produce for local market ^d (I, K)	Medium	Med-High	Medium	No	—	L (limited), N, I
Cocoa (I, D)	Medium	Low	Medium	No	—	N, I
Coffee (I, D)	Medium	Low	Medium to High ^c	Yes (P)	Low	(L), N, I
TYPE 3: Perishables linked to distant markets and requiring strict quality control (due to perishability and quality control)						
Fresh-cut flowers	High	High	High	Low	High	I
Fresh vegetables	Medium	Medium to High	High	Low	High	(N), I
TYPE 4: Labour intensive, hard to mechanize but non-perishable/non-bulk						
Cotton	Medium	Low	High	No	—	(N), I
Sesame	Medium	Low	High	No	—	(N), I
TYPE 5: Labour-intensive, hard to mechanize crops with high perishability and bulk						
Oil palm	Medium to High	High	High	Yes	Variable	(L), N, I
Tea	Medium	High	High	Yes	Variable	N, I
TYPE 6: Labour-intensive crops with high perishability and bulk which may be fully mechanized						
Sugarcane	Low to High	Variable ^a	Highly variable ^c	Yes	Variable	N, I
Ethanol	Very High	Very high			High	
TYPE 7: Non-perishable, fully mechanizable crops requiring minimal processing						
Soy	Low to High	Low	Low/variable ^c	No	—	(L), N, I

a As shaped by crop characteristics or capacity to mechanise. *b* Due to bulk, perishability or quality control. *c* Varies according to level of mechanisation. *d* E.g., tomato, onion. *e* Highly dependent on production system (smallholder for local consumption vs. for international markets)

3.2 Case study: high-value horticultural products in the East African and Andean highlands

In the last 20 years, horticultural exports have more than tripled in Latin America and quadrupled in Africa and Asia.⁸⁶ This trend has been driven by consumer demand linked to European and US markets for year-round, high-quality fresh produce, favouring locations that have short transport distances, complementary seasons and low production costs.⁸⁷

3.2.1 Value chain type: perishables, distant markets, strict quality controls

Despite significant diversity across crops and regions, this type of value chain is characterised by:

- High levels of perishability
- High labour intensity
- Medium-to-high levels of capital outlay and technical sophistication
- A focus on international markets, which require strict quality controls (e.g. for food safety and phytosanitary concerns)
- A smaller spatial footprint than other agricultural commodities, but high water demand.

This has tended to result in value chains with the following characteristics:

- Stringent controls over production, processing and product traceability, governed mainly through sectoral certifications, such as GlobalGAP and EurepGAP,⁸⁸ or by the regulatory standards developed by specific supermarket chains,⁸⁹ with investments needed by producers to meet certification requirements and maintain traceability.
- Tight vertical integration in the value chain, where supermarkets exert significant control over the way in which produce is grown, harvested, stored and

transported to ensure quality, traceability and just-in-time delivery.⁹⁰

- A predominant production model of exporter-owned farms in which production, processing and exports are integrated into single companies, often supplemented through contractual relations with medium-scale contract growers and smallholder outgrowers.⁹¹
- A relatively high number of skilled and unskilled workers per hectare, e.g. ranging between four and seven people per hectare in Kenya.⁹²
- High water usage, which peaks during the dry season, further exacerbating water scarcity.⁹³

3.2.2 Features of inclusiveness

The dominant routes to inclusiveness in horticultural value chains are employment creation, and opportunities for smallholders to access foreign markets. These opportunities are linked to the establishment of exporter-owned farms, and significantly influenced by national labour laws and services to smallholders.

3.2.2.1 Inclusive and fair value chain relations

Evidence suggests that smallholders have had significant livelihood gains from engaging in this type of value chain,⁹⁴ with income effects often reaching poorer households.⁹⁵ However, there is a growing challenge to ensuring inclusive value chain relations as smallholders struggle to meet increasingly stringent market requirements and quality control measures, which have progressively restricted the range of actors that can participate.⁹⁶

Where quality control is handled through certification, it was reported to have an added exclusionary effect on smallholders: one study found certification costs to be eight to ten times greater for smallholders than for plantations.⁹⁷ This situation has been exacerbated by high input costs, risks associated with water shortages and drought,⁹⁸ and higher financial risks and lower returns on investment experienced by smallholders compared

86 Van den Broeck and Maertens 2016.

87 Barrett et al. 1999; Mausch et al. 2009; Okello et al. 2011; Xia et al. 2006.

88 Mausch et al. 2009.

89 Barrett et al. 1999; Dolan and Humphrey 2004.

90 Dolan and Humphrey 2004.

91 Mausch et al. 2009.

92 Ulrich 2014.

93 Ulrich 2014.

94 Maertens et al. 2011; Maertens and Swinnen 2009; Minten et al. 2009; Mithoefer et al. 2008; Muriithi and Matz 2015; Ulrich 2014.

95 McCulloch and Ota 2002; Muriithi 2014; Van den Broeck et al. 2017.

96 Dolan and Humphrey 2004; Minten et al. 2009; Mausch et al. 2009; Maertens and Swinnen 2009; Okello et al. 2011.

97 Mausch et al. 2009.

98 Muriithi 2014.

to large-scale contract growers and plantations.⁹⁹ These challenges have been reflected in significant *reductions* in smallholder inclusion in Kenya as they struggle to meet the requirements of new standards and water shortages.¹⁰⁰

3.2.2.2 Employment creation and respect for labour rights

This value chain offers significant potential to fulfil the responsible labour relations end of the spectrum of inclusiveness, mainly through job creation, a potential which can most effectively be fulfilled through improvements in job quality.

Job quality can vary substantially according to one's position:

- Fresh-cut flowers and fresh vegetables have been found to provide high levels of employment for women and unskilled workers.¹⁰¹ For wage labourers in permanent positions, income has been shown to be sufficient for increasing investment in education and housing in certain study sites.¹⁰²
- Poor labour standards and occupational hazards often undermine benefits. For example, a study from Kenya found that low wages, poor working conditions, long hours, health risks, job insecurity and lack of due notice were undermining livelihood gains for the 65% of hired floriculture workers who are unskilled.¹⁰³ The study also found that workers faced high levels of exposure to pesticides and were vulnerable to uncompensated contract termination in case of illness or injury.¹⁰⁴

Evidence points to the potential to improve labour conditions. Following public advocacy, for example, workers in Colombia gained the right to earn a legally mandated minimum wage and employee benefits.¹⁰⁵ These jobs are relatively stable and especially sought by women, who are less attracted to the male-dominated rural labour market and who prefer the more child-friendly work schedule associated with the industry.¹⁰⁶

3.2.2.3 Voice and representation, land rights and food security

There is limited evidence relating to issues of voice and representation and tenure arrangements – although impingement of customary water rights (both quality and quantity) seems to be a major concern in drier areas. Interventions in water resource management are needed to rationalise use without placing excess burden on smallholders and local food production.¹⁰⁷

There is some evidence that, for smallholders involved in this value chain, resources could be diverted away from crop production, potentially undermining food availability,¹⁰⁸ although evidence also pointed to positive contributions to food access through the development of rural labour markets and, in places like Colombia which have protective labour laws, female wage employment.¹⁰⁹ Efforts to ensure land and water availability for food production would help mitigate negative effects on local communities, while improvements in job quality would have positive impacts on food security for employed households.

3.2.3 Summary and conclusions

The greatest opportunities for advancing inclusiveness in this type of value chain appear to lie in:

- Supporting improvements in wages and working conditions.
- Enhancing social inclusion by supporting smallholders, including women, in overcoming barriers to market entry and the context-specific investment constraints that force them to exit the industry once there.
- Intervening in water resource management to rationalise use without placing excessive burdens on smallholders, e.g. by mandating water-saving technologies for exporter-owned farms, subsidising more efficient irrigation systems for smallholders, strengthening management of effluent industry-wide, and engaging in evidence-based spatial planning to ensure new investments do not tax scarce water resources or compete with food production.

99 Dolan and Humphrey 2004; Mausch et al. 2009.

100 Dolan and Humphrey 2004; Maertens and Swinnen 2009; Muriithi 2014.

101 Friedemann-Sanchez 2006; Van den Broeck & Maertens 2016.

102 Ulrich 2014; see also Mausch et al. 2009.

103 Ulrich 2014.

104 Ulrich 2014.

105 Friedemann-Sanchez 2006.

106 Friedemann-Sanchez 2006.

107 Mena-Vásquez et al. 2016; Ulrich 2014.

108 Van den Broeck and Maertens 2016; Ulrich 2014.

109 Friedemann-Sanchez 2006; Maertens and Swinnen 2009; Van den Broeck and Maertens 2016.

3.3 Case study: oil palm in Southeast Asia and Colombia

Oil palm has been a major driver of the renewed business interest in agricultural investment, with production expanding from the ‘mature’ industry of Southeast Asia to new sites – for example in West and Central Africa, where the crop originated, and Amazonia. Depending on the situation, oil palm has lent itself to both small- and large-scale farming operations, and the industry presents considerable experience with a wide range of partnership models linking agribusiness and smallholders. There is also substantial experience with international certification bodies, particularly the Roundtable on Sustainable Palm Oil (RSPO).

While oil palm has been traditionally grown and processed for local consumption in West Africa, investments to supply global markets have tended to feature capital-intensive processing infrastructure in close proximity to mill-owned nucleus plantations to ensure processing before quality diminishes and reduce the cost of transport.¹¹⁰ Such investments tend to dominate in the early stages of industry expansion, and have raised concerns over the crop’s environmental and social impacts due to the conversion of tropical forest and peatland and the impact on indigenous people. Large areas of land ranging from 4,000 to 20,000 hectares of contiguous plantations are often brought under a single crop, and land ownership and/or control is highly centralised (e.g. with the mill and plantation under single ownership and tight control over production on smallholder farms).¹¹¹

Supply from plantations is at times supplemented with variable levels and forms of contractual smallholder engagement (see Box 1), often with a single buyer for their product. This creates a high level of dependence of growers on a single company, which tends to reduce smallholder bargaining power over the terms of engagement. The central features of the crop and its global value chains also create barriers to entry for lower income farmers.

3.3.1 Value chain type: labour-intensive, hard to mechanise, high perishability and bulk

This type of value chain is characterised by high levels of crop perishability and bulk; and high labour intensity associated with pest control, weeding and harvesting. Oil palm in particular is further characterised by:

- Moderate levels of capital outlay and technical sophistication due to crop responsiveness to fertilizer and weeding, and delayed returns from planting to harvest.¹¹²
- The crop’s unique suitability to the humid tropical forest zone.

Box 1. Models of smallholder engagement in Southeast Asia

There are four main forms of smallholder integration into oil palm value chains in Indonesia and Malaysia:

1) **Nucleus Estate Smallholder (NES) schemes:** where a private company acquires customary land, develops oil palm plantations on it (plasma), and returns a portion of the developed land back to smallholders while retaining the rest as a form of payment for the investments made on their behalf. The most well-known example is the NES scheme in Indonesia.

2) **Conventional outgrower arrangements:** where farmers retain their land, and a private company (typically the owner of a mill and surrounding nucleus estate) provides technical support and inputs on credit (often through concessional federal loans) to smallholder farmers and guarantees the purchase of their harvest. An example of this is the SALCRA scheme in Malaysia.

3) **Smallholders growing oil palm independently, in the absence of a contract:** this situation is most common in later stages of the industry, among households with capital to invest, and where the spatial dimensions of land tenure and use provide flexibility for new growers to enter the industry and supply multiple mills.

4) **Joint venture arrangements:** where smallholders acquire equity in the oil palm established on their land based on the rules of the specific scheme.

This experience in Southeast Asia can be contrasted with models developed elsewhere. In Colombia, for example, smallholders grow independently for mills that they own collectively.

3.3.2 Features of inclusiveness

Review findings indicate that it is difficult to make generalisations about the opportunities and constraints for inclusiveness as local experiences with oil palm have been highly variable. Nonetheless, the dominant models of oil palm production and processing indicate that there is potential for achieving a moderate level of inclusiveness against the five pillars identified, primarily due to the high returns from oil palm relative to other cash or subsistence crops.¹¹³

The literature also suggests that achieving even this level of inclusive business relations is far from automatic, due to the large variation in value chain relations and degrees and forms of smallholder integration, variability

¹¹⁰ McCarthy 2010; World Bank 2010.

¹¹¹ Sheil et al. 2009.

¹¹² Feintrenie et al. 2010; Therville et al. 2010; World Bank 2010.

Box 2. Case studies on policy and smallholder inclusion

Indonesian oil palm

During Indonesia's New Order period (1966-1998), the government used oil revenues to provide credit to nucleus estates in exchange for extension services and a guaranteed market for smallholders.^a They also mandated that at least 70% of land in Nucleus Estate Smallholder (NES) schemes be allocated to smallholders,^b resulting in demonstrable poverty alleviation.^c Support to smallholders collapsed when the economy was liberalised in the Reformasi period (post-1998).^d New regulations gave plantation owners greater control over their land and reduced minimum smallholder participation to 20% of land.^e It also enabled plantations to rent land from smallholders for considerably less than they could have earned working the land.^f Smallholder entry and expansion was circumscribed by socio-economic status, and the decreased minimum area reduced the bargaining power of producer organisations.

Peruvian oil palm

In Peru, the push to eradicate coca incentivised support to smallholder oil palm growers and was a major factor behind the large presence of small and medium-scale farmers in the sector, representing 60% of cultivated area.^g The UN Office on Drugs and Crime's (UNODC) Alternative Development programmes supported alternative livelihoods for coca growers, and helped farmers form associations, get credit for oil palm and install processing mills. There are now up to six mills across the Peruvian Amazon with farmer federations as the most important shareholders. The model of collective factory ownership, in which services are provided to shareholders, has driven dramatic improvements in livelihoods – with growers reportedly buying themselves cars and sending their children to university.ⁱ

^a Larson 1996.

^b McCarthy 2010; Zen et al. 2008.

^c Susila 2004; Zen et al. 2005.

^d McCarthy and Cramb 2009.

^e Potter 2015.

^f McCarthy et al. 2012; Potter 2015.

^g Oxfam America, pers. comm.; Dammert 2015.

ⁱ Oxfam America, pers. comm.

of employment conditions, the different positions that households occupy with respect to the industry, the forms that the industry might take at different stages, and variability in government policy.

3.3.2.1 Inclusive and fair value chain relations

Inclusiveness is impacted both by the model and specific terms of smallholder engagement. Industrial-scale plantations, preferred by industry for their production and processing efficiencies, are the least inclusive on multiple grounds. While often linked to smallholder production models, the land area and production volumes under smallholder control vary considerably – with greater degrees of smallholder involvement attributable to proactive government policy rather than internal investment dynamics (Box 2).

The type of model of smallholder engagement (Box 1) also influences the balance of costs and benefits for smallholders, with strong linkages to companies through the provision of inputs, technical assistance and marketing channels, weighed against the vulnerabilities created by high-dependency on a single crop and buyer, and uneven negotiating power under conditions of monopsony.

Of the four main models found in Southeast Asia, NES and joint venture are particularly advantageous to companies wanting to expand the area under their direct control to increase production and processing efficiencies.¹¹⁴ However, plasma arrangements appear to carry high livelihood costs for smallholders due to land loss, difficulty integrating oil palm with other livelihood activities, and challenges negotiating advantageous forms of integration.¹¹⁵ Joint venture models in Malaysia have also fared poorly for smallholders due to low or irregular dividends, limited financial transparency, limited respect for land rights, and scheme governance.¹¹⁶ While yields were reported to be lower under conventional outgrower arrangements, profit margins for smallholders tend to remain high due to the lower operating costs.¹¹⁷ The model was found to be superior to joint ventures on both efficiency and equity grounds.¹¹⁸

There are trade-offs between the different schemes. Independent cultivation generally presents more opportunities for smallholders, yet its spontaneous emergence appears limited to locations with alternative market outlets and where land is available. Also, the high

113 Belcher et al. 2004; Feintrenie et al. 2010; Sandker et al. 2007; Sheil et al. 2009.

114 Interview with private sector company, 14 April 2017.

115 Marti 2008; Feintrenie et al. 2010; Rist et al. 2010; World Bank 2010.

116 Cooke et al. 2011.

117 Cooke et al. 2011.

118 Cramb and Ferraro 2010.

barriers to entry make it unachievable for many in the absence of industry or government assistance (see Box 2).

Favorable conditions for smallholder-driven growth and collective mill ownership can be induced through public support, as attested by the 7,000 families cultivating 31,000 hectares of oil palm in Peru,¹¹⁹ and by Indonesia's impressive gains in smallholder inclusion during the New Order period.¹²⁰ While these achievements have eroded under the hands-off policies of the *Reformasi* period,¹²¹ each of these cases shows how crucial government can be in establishing the basis for differing levels of inclusiveness, affecting particularly the types of models and terms of engagement for smallholders and the relative levels of influence and autonomy between plantation companies and smallholders.¹²²

While oil palm business models affect the level and distribution of benefits and risks, the *specific terms of engagement* with value chains within each model also shape inclusiveness. Opportunities for inclusiveness are impacted by the circumstances of households transitioning to market-based livelihoods, including customary livelihoods, ethnicity and relationships with village-level social and political processes.¹²³

At a more general level, households incorporated into the expanding oil palm industry tend to lose autonomy and self-sufficiency and become exposed to fluctuating market prices and the purchasing practices of oil palm mills.¹²⁴ The role of the government in preserving full or partial smallholder land ownership and control, and options for exiting at all stages of industry expansion are also crucial for smallholder leverage and complementary livelihood activities to offset the risks of engagement.

3.3.2.2 Respect for land rights and inclusive tenure arrangements

Conflict between communities and oil palm companies is still widespread, particularly on the issue of land and compensation.¹²⁵ In many cases, forest conversion has violated indigenous land rights, disrupted livelihoods,¹²⁶ and put pressure on traditional shifting cultivation and foraging systems.¹²⁷ The way in which land is made available for projects is crucial:¹²⁸ negative impacts result largely from poorly implemented transfers of land, in which households and communities lose all of their customary land and receive uncertain benefits. While customary rights holders with land under communal tenure arrangements have been compensated in Indonesia, there is scant evidence that this has offset losses – even where affected households received oil palm plots as additional compensation.^{129 130}

While land rights problems occur in different business models, nucleus estates carry the greatest risks to local livelihood due to loss of land rights and incompatibility with customary land uses.¹³¹ Under NES and joint venture schemes, smallholders retain rights over at least a portion of their landholdings, but lose direct control over the terms of engagement and over land use decisions.¹³² These schemes may provide a land title in exchange for entry; however, this does not equate to respecting land rights if tenure security is used to strong-arm communities into participating.¹³³ While independent smallholder cultivation may also lead to land concentration as wealthier households capture opportunities in oil palm, smallholders are also shown to benefit when they can overcome barriers to market entry.¹³⁴

119 Dammert Bello 2017.

120 McCarthy 2010; Zen et al. 2008.

121 McCarthy and Cramb 2009.

122 Evidence from Sumatra, Indonesia, suggests that the stage of industry development can influence the structuring of value chains. In Sumatra, oil palm expansion has been characterised by two key stages: 1) Externally driven phase of agribusiness expansion into formerly remote rural settings, primarily via the establishment of commercial plantations and outgrower schemes, and with high levels of dependence of smallholders on a single company. 2) Smallholder-driven expansion of cultivation by individuals with the capacity to embrace new market opportunities, resulting in participation through a more open market. In more advanced stages of the industry, and in areas with multiple mills, heterogeneous land ownership and good transport infrastructure, those with capital (e.g. retired public servants) have greater opportunity to grow oil palm independently for multiple mills. However, smallholders have also lost land to these small and medium-scale growers in the absence of support to overcome barriers to entry.

123 McCarthy 2010; Obidzinski et al. 2012; Cahyadi and Waibel, 2016.

124 World Bank 2010.

125 Marti 2008.

126 McCarthy and Cramb 2009; Zen et al. 2005.

127 Belcher et al. 2004; Nayang Dorwana et al. 2011; White and White 2012; Obidzinski et al. 2012.

128 Locke and Henley 2016.

129 Obidzinski et al. 2012.

130 Such experiences have led the Chief Sustainability Officer at a private sector company to conclude that, “dispossessing people of the one asset they’ve got is wrong” (April 18, 2017 interview). He also indicated that the era of concessions may be a thing of the past.

131 Obidzinski et al. 2012.

132 Cooke 2012; Cooke et al. 2011; Feintrenie et al. 2010.

133 Cooke 2012.

More inclusive tenure arrangements may be advanced by:

- Reducing the nucleus estate portion of oil palm developments at all industry stages.
- Ensuring full or partial land retention outside contractual arrangements with oil palm companies to provide freedom of choice in land use.
- Preventing coercion in the engagement of smallholder land by ensuring households do not have to participate in the industry to secure their land rights, access basic services or provide for their families.
- Supporting local leverage over the forms and terms of engagement of customary land.
- Supporting poorer households in overcoming barriers to entry and its effects on land loss.¹³⁵

3.3.2.3 Employment creation and respect for labour rights

While oil palm plantations create many jobs, the quality of work can differ significantly, affecting the degree of inclusiveness:

- Permanent positions in refineries tend to offer higher wages, a more regular income and employer-provided schools and healthcare, providing opportunities to improve the livelihoods and social status of workers.¹³⁶
- Most employment opportunities on plantations lie in manual work, where high levels of casual labour, incomes below minimum and/or liveable wages, and food insecurity (driven by low wages and land shortages) undermine the ability of most households to translate income into positive livelihood changes.¹³⁷

The relatively high barriers to entry for smallholder participation in the oil palm value chain and for local access to high-quality jobs means that the ability to benefit from the potentially high returns of oil palm are often restricted to those with existing and relevant skills and to wealthier farmers.¹³⁸

3.3.2.4 Contribution to food security

Where they have been measured, the impacts of large-scale plantations on food security have been largely negative in the establishment phase.¹³⁹ This is due to communities

losing land, which in many cases displaced agricultural production or foraging without offsetting losses through alternative livelihoods.

In addition, a cross-country review of the oil palm industry found negative effects of smallholder monocultures on food security, linked to the reluctance of oil palm companies to accommodate mixed cropping, including food crops, which smallholders were found to prefer.¹⁴⁰ On the other hand, the long-term impacts of oil palm on food security are poorly understood. One study¹⁴¹ found food security only improved relative to the national average in a frontier zone (West Kalimantan), with the more established oil palm zones of Sumatra underperforming national averages.

3.3.3 Summary and conclusions

Opportunities for advancing inclusiveness for this type of value chain include:

- Ensuring land is retained to support diversified livelihoods and produce food for local consumption to mitigate the effects of market entry and fluctuations. Where customary land is integrated into oil palm value chains, this should be done in ways that mitigate risks and maximise benefits to customary rights holders.
- Regulating the terms of engagement for workers and outgrowers to avoid coerced entry and exploitative land and labour relations under conditions of monopsony.
- Supporting the early diversification of market outlets for smallholders, including via cooperatively owned mills.
- Providing low-risk forms of support to enable smallholders to enter the market as independent growers (e.g. via public provision of low-risk services to smallholders, or public-private arrangements favorable to smallholders).

3.4 Case study: sugarcane in Brazil and eastern and southern Africa

While family farmers have a long history of growing sugarcane for home consumption and cottage industries, the industrialisation of the crop to supply sugar and ethanol to regional and global markets has led to capital-intensive investments in processing. This created demand for a reliable, round-the-clock supply of raw cane to mills

134 Feintrenie et al. 2010; McCarthy 2010.

135 Cooke et al. 2011; Feintrenie et al. 2010; World Bank 2010.

136 Feintrenie et al. 2011; McCarthy and Zen 2010; Obidzinski et al. 2012.

137 Marti 2008; Obidzinski et al. 2012; Pye et al. 2016; Sinaga 2013.

138 Obidzinski et al. 2012; World Bank 2010.

139 Locke and Henley 2016.

140 Potter 2015.

141 Kessler et al. 2007.

and led to careful planning of the production area required to supply each mill.

This demand, together with the crop's perishability and bulk, has contributed to an intensive spatial footprint of cane within 15–30 km of mills, while incentivizing close coordination and/or vertical integration of the production and processing stages of the value chain. Economies of scale also result in large mills with a large nucleus estate,¹⁴² a key feature of all sugarcane investments targeting regional or global markets.

3.4.1 Value chain type: labour-intensive but mechanisable, high perishability and bulk

This type of value chain is characterised by high crop perishability, high bulk and labour intensity, rapid post-harvest processing, and the close proximity of processing facilities to plantations. Although it is associated with high labour intensity, production can be mechanised, undermining the potential for employment creation.

For sugarcane in particular, this type of value chain features:

- Recoverable crystal content that is highly responsive to climate and soil moisture, production techniques and post-harvest processing.¹⁴³
- High transportation costs, which tend to intensify the spatial footprint of cane surrounding processing facilities as compared to Type 5 value chains.
- Particularly high labour intensity associated with the harvest, but availability of technologies to fully mechanise the process.
- Crop suitability to tropical and subtropical regions in areas with plentiful water supplied by rainfall or irrigation.

3.4.2 Features of inclusiveness

Similar to oil palm, the evidence reviewed suggests that local experiences with sugarcane have been highly variable. This variability results from the business model and country in question, which shape the extent of smallholder participation in value chains; the forms of smallholder engagement; the performance of producer associations; and an individual's social position within the household and community.

The role of wage labour is also key; the possibility of fully mechanising the harvest creates trade-offs between production efficiency and profitability, and employment generation. In practice, mechanisation depends on a host of factors, from the level of capitalisation of firms (shaping the *ability* to mechanise); the cost of labour (shaping the *benefits* of mechanisation); and the importance of wage labour to local livelihoods (shaping the *political* costs of mechanisation, and for more responsible firms, decisions on whether to mechanise).¹⁴⁴

3.4.2.1 Effective arrangements for voice and representation

Regarding voice and representation, coerced entry of smallholder land and labour and limited voice in contractual arrangements emerge as prominent challenges, which seem to be strongly linked with negative livelihood outcomes, such as reduced household incomes, or the inability to repay loans linked to scheme inputs and infrastructure.¹⁴⁵ While there are some examples of smallholder associations holding equity stakes in the plantations they work with, a lack of a majority shares and the quality concerns of mill owners constrain their influence over the business and smallholder control over agronomic tasks.¹⁴⁶

3.4.2.2 Inclusive and fair value chain relations

Unlike Brazil, where production is more highly industrialised, outgrowers linked to nucleus estates have long been a feature of sugarcane value chains in eastern and southern Africa.¹⁴⁷ Some private sector players attribute this difference to constraints on land access and the 'social responsibility' of companies to offer employment opportunities in sub-Saharan Africa.¹⁴⁸ Models for smallholder integration in the region vary according to climate, government intervention and availability of public finance (Box 3).

Different forms of smallholder engagement carry trade-offs between features of inclusiveness: rainfed schemes offer greater scalability and reduced land conflict, while irrigated block farms create efficiencies for growers and buyers while providing greater potential for labour saving and income benefits. Independent grower arrangements reduce risks and offer greater benefits than cane supply agreements, but are dependent on government involvement

¹⁴² LMC 2005; Stray et al. 2012.

¹⁴³ Higgins et al. 1998; Holden and McGuire 2013; Kadwa 2013.

¹⁴⁴ Interview with sugar company, 9 March 2017.

¹⁴⁵ Wendimu et al. 2016; Herrmann and Grote 2015; Taruvinga 2011.

¹⁴⁶ German and Parker 2018.

¹⁴⁷ Dubb et al. 2016.

¹⁴⁸ Interview with a sugar company, 9 March 2017.

to overcome the extreme monopsony that tends to characterize the sector.¹⁴⁹

Not all forms of engagement are viable in every situation (e.g. due to variable climate), calling for context-specific arrangements. Returns for smallholders do not depend solely on the business model, but on the particular terms of engagement. Terms can vary widely due to pricing arrangements between smallholders and the company, the degree of risk transferred to smallholders, the voluntary nature of scheme entry, and the quality of management within smallholder associations.¹⁵⁰ Positive accounts of outgrowers earning respectable incomes have been documented, yet the high variability in scheme performance suggests the need for independent oversight to either curtail monopsony or regulate the terms of engagement.¹⁵¹

The recent termination of the EU Sugar Protocol caused sharp price reductions, which has led to efforts to minimise costs and expand production,¹⁵² and has created challenges for smallholder debt repayment in countries highly dependent on the EU market.¹⁵³ These reforms are said to make smallholders particularly vulnerable.¹⁵⁴

3.4.2.3 Respect for land rights and inclusive tenure arrangements

Reliance on irrigation for industrial sugarcane production has enhanced the attractiveness of well-developed sites near perennial waterways, and led to a preference for the acquisition of established plantations (often existing sugarcane plantations with factories) rather than greenfield sites on customary land.¹⁵⁵ While this has reduced the social disruption associated with land acquisition, land conflicts have nevertheless been documented for greenfield sites, on estates with a long history of informal occupation by smallholders,¹⁵⁶ and in irrigated smallholder block farms.¹⁵⁷ The sizeable demand for water has also been linked to livelihood consequences for small-scale fisherfolk reliant on wetlands for their livelihoods.¹⁵⁸

Recent cane area expansions, where land under customary tenure was acquired and re-purposed for cane production by small-scale outgrowers within block farms, have led to conflict at a more localised scale, often between members of the same household and community.¹⁵⁹ Land consolidation happens through exchanges between those

Box 3. Models of smallholder integration in sugarcane production in eastern and southern Africa

Three primary forms of smallholder engagement are identified in eastern and southern Africa:^a

1. Irrigated block farm arrangements under contract: observed in Swaziland, Zambia and parts of Malawi, where it is too dry to grow cane without irrigation.^b In some of the newer irrigated smallholder schemes, outgrowers are more like shareholders, with limited control or direct involvement in agronomic tasks. Instead, they are integrated through land contributions through which they receive a share of overall profit from the block.^c The high cost of irrigation infrastructure significantly curtails the scalability of this model, and outgrower integration has relied heavily on bank loans and public finance.^d
2. Rainfed farming under cane supply agreements with farmers' associations: observed in Malawi, Mozambique, Tanzania and South Africa, and possible in areas with sufficient rainfall. These schemes have the benefits of scalability given the lower cost of bringing smallholders on scheme, and fewer disruptions in tenure relations.
3. Smallholders growing independently for multiple mills: observed in certain regions of South Africa, where 14 mills are located in the two primary cane growing provinces. Here, reliance on a single mill has declined and smallholders prefer to grow cane independently in order to negotiate a better price.^e This arrangement was reportedly enabled through public transport subsidies to enable smallholders to reach more distant mills.

a Interviews with a sugar company, 9 and 22 March 2017.

b Dubb et al. 2016; Matenga 2016; Smalley et al. 2014.

c German and Parker 2018; Matenga 2016.

d Dubb et al. 2016; Hermann and Grote 2015; Richardson 2012; Smalley et al. 2014.

e Interview with a sugar company, 9 March 2017.

149 Herrmann and Grote 2015; James and Woodhouse 2016.

150 Chirwa et al. 2005; Monson 2009; Smalley et al. 2014; Wendimu et al. 2016.

151 Mujenja and Wonani 2012; Hickey and du Toit 2007.

152 Dubb et al. 2016.

153 Richardson 2012.

154 Goodison 2005; Richardson 2012.

155 Dubb et al. 2016.

156 Norris and Worby 2012; Richardson 2010; Rulli et al. 2012.

157 Dubb et al. 2016; German & Parker 2015; Makombe 2011.

holding land on- and off-scheme, to allow families with landholdings outside designated blocks to enter the scheme, and to offset losses in staple crops on landholdings that fall within the scheme. Block farming arrangements disrupt existing land rights and livelihood systems and at times lead to intra-household land conflict or displacement of secondary rights holders.¹⁶⁰

The growing vulnerability of farm workers and smallholders under reduced market prices and industry cost-cutting highlights the importance of smallholder control over (the terms of engagement of) their land and labour, to provide the flexibility to shift to alternative livelihoods, if needed.

3.4.2.4 Employment creation and respect for labour rights

The potential for job creation – and the quality of jobs – varies significantly across sugar industries depending on the level of mechanisation and whether jobs lie in processing or agricultural production. Mills tend to offer full-time, quality jobs with benefits, available to those with higher skill levels. By contrast, work on plantations can be relatively labour-intensive but tends to be migrant, seasonal, poorly paid, and with detrimental health, safety and employment conditions.¹⁶¹

For seasonal and plantation workers, evidence points to a need to move towards contractualised employment with benefits, and away from performance-based payment systems, labour contractors and a largely migrant workforce.¹⁶² In some situations, integrating part-time casual work within a diversified income strategy can improve rural livelihoods – where firms requiring seasonal labour engage local residents on flexible terms, thereby enabling them to tend to, and invest wages in, their farms and small businesses.¹⁶³ Such diversification is also helping some families in Malawi to weather crop failure due to drought.¹⁶⁴ Hiring a local (rather than migrant) workforce might also leverage greater benefits from employment by minimising health risks and strengthening collective bargaining.¹⁶⁵

Manual sugarcane harvesting is highly labour-intensive, making it a major contributor to formal employment in

agriculture.¹⁶⁶ However, employment rates vary significantly based on the level of mechanisation, from 70 job equivalents per 100 hectare to less than 10.¹⁶⁷ Plans in Brazil to phase out the pre-harvest burning of sugarcane, which is done to facilitate manual harvest, are expected to eliminate the vast majority of the estimated 470,000 to 480,000 cane-cutter jobs in the country by 2020.¹⁶⁸ While mechanised harvesting is limited in Africa, some companies are looking at it on a trial basis, raising the risk of worker retrenchment in the future. The recent liberalisation of the EU market has incentivised mechanisation and led to job losses and growing casualisation of the workforce.¹⁶⁹

3.4.3 Summary and conclusions

Opportunities for advancing inclusiveness include:

- Supporting the diversification of market outlets for smallholders.
- Ensuring entry into contractual schemes is voluntary, and provides significant discretionary space for shaping the terms of engagement and reducing risk.
- Improving labour conditions for seasonal workers, including on commercial scale outgrower farms, by emphasising local over migrant labour, eliminating performance-based payment systems and use of labour contractors, and exploring ways to accommodate complementary livelihood activities within the labour needs of agribusiness firms.

3.5 Main findings

The review points to varying availability of evidence on how different value chains perform against the five pillars of inclusive business. While some dimensions are relatively well documented (e.g. fair value chain relations), there is limited evidence on how diverse business configurations affect different facets of food security, and of voice and representation. However, the analysis does point to strong links between the different pillars, with food security linking

¹⁵⁸ Richardson 2010.

¹⁵⁹ Dubb et al. 2016; German and Parker 2018.

¹⁶⁰ German and Parker 2018.

¹⁶¹ Dubb et al. 2016; Hunsberger et al. 2017; O’Laughlin 2016; Thondlana 2015; UNEP 2008; Schneider and Gugerty 2010.

¹⁶² Galiano 2012; Lehtonen 2011; O’Laughlin 2016.

¹⁶³ Megan Canning pers. comm.; German and Parker 2018.

¹⁶⁴ Megan Canning, pers. comm.

¹⁶⁵ Gibbon 2011; O’Laughlin 2016.

¹⁶⁶ In Malawi alone, sugarcane offers employment to about 10,000 people, while in Brazil an estimated 200,000 people work as harvesters (UNEP 2008). See also Dubb et al. (2017).

¹⁶⁷ Hunsberger et al. 2017.

¹⁶⁸ Dias de Moraes and Zilberman 2014.

¹⁶⁹ Goodison 2005; Oxfam International 2004; Richardson 2010; Richardson-Ngwenya and Richardson 2014.

closely to the other four pillars – particularly the way in which land is made available, the terms of engagement for smallholders, and the quality of jobs created.

The findings indicate that the traits of each crop and value chain affect the scope for advancing inclusiveness and the trade-offs that can arise between advancing the different features. As a result, choices about business configurations are partly dictated by features of the crop and the structure of the value chain. At the same time, ambition on inclusiveness should not be constrained by such attributes. Indeed, there is significant variation in experiences and clear potential to increase inclusiveness through concerted actions to change business practices.

Experience in Colombia, for example, demonstrates that the quality of jobs can be improved in labour-intensive value chains through public pressure and advocacy. Experiences in Indonesia, South Africa and Peru also demonstrate that conditions of monopsony, widely understood to reduce smallholder bargaining power and benefits, can be addressed by support to market diversification, public subsidy of smallholder transportation costs, or mill ownership by smallholder associations. However, growing international competitiveness in each of the profiled value chains has meant growing challenges for worker retention and smallholder entry, retention and benefits – suggesting that businesses need to show greater creativity, or accept reductions in efficiency/profit for the sake of employee and smallholder inclusion.¹⁷⁰

The evidence reviewed also shows that different models of smallholder integration can be pursued, including for the

same crop at the same location. Contextual factors do affect the choice of business model, as illustrated by the different options for promoting smallholder inclusion in rainfed and irrigated sugarcane farming, and by the greater scope for independent small-scale cultivation in contexts characterised by multiple or smallholder-owned mills. But ultimately company choices (e.g. on integrating farmer associations into shareholding structures, degree of risk transfer to small-scale growers), smallholder organising and action, and public policy all play an important role in influencing shifts along the spectrum of inclusiveness.

Diverse dimensions of public policy have a bearing on business inclusiveness. The oil palm sector in Columbia and Indonesia highlights the significant influence that determined and sustained sectoral policy action can have on promoting specific production models and forms of smallholder inclusion. The role of governments in designing and enforcing labour laws applicable to the agribusinesses sector is another case in point. The underlying land tenure arrangements are also key to promoting inclusiveness: while the evidence shows how different value chains have disrupted existing land rights, it also suggests that secure land rights for smallholders can incentivise businesses to work with them – particularly where land availability is constrained and scope for establishing large-scale operations is limited. Another option pursued by companies experiencing constraints to land access is to shift from ‘aggressive expansionism’ to the intensification of existing landholdings¹⁷¹ – a positive trend from a land rights perspective.

170 Interviews with a private sector company, April 13 and 18, 2017.

171 Interview with a private sector oil palm company, April 18, 2017.

4. Key lessons and ways forward for the land governance agenda

4.1 Assess progress against cross-cutting features of inclusiveness

Evidence from selected value chains indicates that, while inclusiveness is often conceived of in terms of smallholder involvement in commercial agriculture, simple participation does not guarantee livelihood benefits. Whether inclusion results in livelihood gains for participating smallholders and employees, and indirectly for non-participating smallholders and their wider communities, ultimately depends on the process and terms of inclusion.

Therefore, the notion of inclusive business requires clear criteria for assessing the key relations that a firm establishes with workers, suppliers, land users and other directly or indirectly impacted people. Observing the unique risks that large-scale land acquisitions for commercial plantations can create for local rights and livelihoods, the literature often equates inclusiveness with the choice of business model. Indeed, the evidence does point to the diverse set of advantages and disadvantages that each business model can have for different supply chain actors, and to the different outcomes that business model choices can create for smallholder livelihoods.

But while business models do have a bearing on inclusiveness, on their own they are insufficient for evaluating inclusiveness. There is considerable diversity of arrangements and outcomes within each business model, and those viewed as more inclusive may also lead to forms of integration that are disadvantageous to rural people. Value chain factors also constrain choices on viable business models. So in addition to evaluating the business model, clear criteria are needed to effectively assess inclusiveness across and within models.

In other words, there is value in identifying foundational pillars of inclusive business that, in cutting across different models, establish generally applicable parameters of quality. In this approach, the extent to which a business structured around a particular model can be said to be inclusive depends on its position along the spectrum defined by cross-cutting features of inclusiveness.

4.2 Target areas of agreement to bridge differences and build alliances

The stakeholder perspectives gathered broadly coalesced on various key characteristics of inclusive business in agriculture, which we distilled into our five headline pillars: effective arrangements for voice and representation; inclusive and fair value chain relations; respect for land rights and inclusive tenure arrangements; employment creation and respect for labour rights; and contribution to food security.

However, there was considerable disagreement on what each pillar entails in practice, and on the relative importance of different pillars. There were areas of convergence and divergence between stakeholders belonging to different groups (e.g. private sector, farmer organisations, NGOs), and different approaches advanced by stakeholders within the same group.

Some divides reflect deep-rooted differences in the underlying visions for agricultural development, such as whether smallholders or agribusinesses should be at the forefront of efforts to advance rural development and food security. This suggests that, while some areas present scope for bridging differences and – to some extent at least – developing shared ways forward, in other areas the assumptions and analyses diverge in more fundamental ways.

4.3 Consider how value chain factors affect options to advance inclusiveness

Any efforts to promote inclusiveness in business relations would need to consider how the structure of real-life value chains shapes opportunities and constraints. For example:

1. **The scope for progress on the five pillars varies for different value chains and business models.** For example, labour-intensive crops present greater potential for progress on pillars related to meaningful levels of smallholder involvement in value chain relations – provided the terms of engagement are equitable.

2. **Business arrangements can produce highly differentiated outcomes for different social groups, possibly exacerbating social and economic inequality.** Questions of inclusiveness need to be examined in disaggregated terms, considering both active value chain participants (e.g. as workers or suppliers), and those that are directly and indirectly impacted. A set-up that may work for commercially oriented smallholders is not necessarily inclusive of poorer, more risk-averse farmers, pastoralists or landless people. And while recognising that situations differ, women and poorer households are often less able to take advantage of opportunities and more likely to be adversely affected by changes in land use and livelihoods. Yet with the right forms of support, they have been proven to engage on par with less marginalised players. However, the value chains analysed suggest these gains may come with trade-offs in production and processing efficiencies for industry players.
3. **Trade-offs can arise between advancing different pillars of inclusiveness.** For example, the cut flower and fresh vegetable industry exhibits potential for the pillars on fair value chains and labour relations, but competition for water can have adverse effects on food security. An exclusive focus on inclusive labour relations may also impact smallholder inclusion, side-lining the pillar on fair value chain relations. Trade-offs also exist for progress within each parameter, for example emphasising local versus national, or even global, food security. There are real questions as to whether forms of production that advance global aims at the expense of local livelihoods and food security can be deemed to reflect 'inclusive business' practice.

Beyond this complexity, some recurring factors affect inclusiveness across different settings and value chains. Unequal or overly one-sided terms of engagement for smallholders often include coerced participation; monopsony leading to excessive dependence on one buyer; and the transfer of significant risk to smallholders. Many smallholders also face barriers to market entry and participation, including limited access to key production factors (land, labour, capital), and the effects that economies of scale both downstream and upstream in agricultural value chains can have on their competitiveness.¹⁷²

4.4 Promote public action to shift industries towards inclusiveness

The evidence indicates that, while commodity and value chain factors do influence business configurations, effective action by governments and civil society can make considerable difference within each commodity sector and geographic context, raising questions about how to push entire industries in a more inclusive direction. These questions interrogate what businesses can do to address constraints to inclusiveness, but also – importantly – what measures policymakers, development agencies, civil society and farmer organisations can take to drive change in a more systemic way.

One key area involves creating organisational spaces for smallholders and workers to shape the terms of their engagement with agricultural value chains, both at the outset and throughout the lifecycle of any business relationship. Research also points to the role that public policy can play in 'tilting the balance' in favour of smallholders – for instance, setting rules of engagement for private investors to balance the playing field, or direct provision of public infrastructure, services and finance to help smallholders overcome barriers to entry and increase their returns on investment.¹⁷³

4.5 Land governance: promote smallholder ownership and public participation

Land governance is a foundational element of inclusive business. Its relevance is particularly evident in the pillar on tenure arrangements. But control over land can have a significant bearing on all the elements that stakeholders identify as the hallmarks of inclusive business – for example, by influencing space for voice and representation in decision making, or as a precondition for fair supply relations and improved food security.

Stakeholder perspectives differ on the land dimensions of inclusive business – for example, whether or not the notion of inclusiveness inherently requires land to stay in the hands of smallholders, at least in part. It is clear that, for rural people, land is a particularly valuable asset – and potentially a main source of negotiating power vis-à-vis incoming businesses – in addition to its other cultural and

172 For example, where large processing facilities can absorb farm produce from vast cultivated areas, and sourcing from large numbers of smallholders involves significant supply risks and transaction costs.

173 Vorley et al., 2012.

174 Interview with a private sector company, April 17, 2017.

livelihood functions. This is a conclusion that the more socially responsible companies are now reaching – even in oil palm, one of the most land-intensive value chains.¹⁷⁴

Supporting value chain relations in which local communities retain control over land is therefore an important part of strategies to promote inclusiveness that rely less on the goodwill of individual companies, and more on the creation of institutional structures that make inclusiveness the preferable business choice.

Land governance programming can support proactive interventions that strengthen the ‘preparedness’ of rural actors and institutions, including:

- Strengthening the policy, legal and organisational arrangements to secure local ownership, access and control over land in the face of outside investment, and to reduce the scale of land transfers through value chain relations that support smallholder production under voluntary arrangements.¹⁷⁵
- Promoting public participation and accountability in land governance, recognising that control over land depends not only on the distribution of substantive rights but also on the ability to influence decisions. Examples include a range of legal or political empowerment initiatives to promote citizen engagement on resource governance and improve the public accountability of local institutions.¹⁷⁶

Reactive interventions, depending on the context, can also address issues raised by the entry of external business actors, including:

- Putting in place safeguards for ensuring that no coercion occurs in any land or business transactions.
- Making arrangements for transparency, in-depth and socially-disaggregated consultation and negotiation and accountability.
- Efforts to counter monopsony or its negative effects on smallholders.
- Securing ongoing access and uses of land valued by local men and women, such as ensuring a share of each household’s land is reserved for customary uses.
- Mechanisms to protect household food security.

4.6 Work towards industry-wide consensus on what inclusiveness means in practice

Various actors can take proactive and reactive steps on land governance: governments can set and implement public policies and provide public services – including those necessary to underpin security of livelihoods and tenure in rural areas; farmer organisations can make a difference in helping their members advance their rights and voice in both policy and commercial arenas; companies can do much to get their businesses right, even in the face of uncondusive public policy or value chain factors; and NGOs, donors and multilateral agencies can sustain these efforts through technical and/or financial support and advocacy.

The varying roles and responsibilities of these different actors raise several challenges. One is that they presuppose that all relevant actors have the necessary skills and capabilities, whether independently or through access to external support, to address the issues and engage with one another in meaningful ways. Depending on the circumstances, this may require provision of appropriately targeted mediation focused on balancing the playing field and technical support e.g. for rural producers, businesses and trusted intermediary organisations.

In addition, stakeholders have different and potentially conflicting interests, and apparent agreement on high-level features belies significant disagreement on what those features mean in practice. For example, food security is variously viewed as protecting local food systems or as increasing global food production. These two different perspectives of the same pillar could result in radically different outcomes. Insofar as multi-actor collaboration can help address land governance challenges and promote inclusiveness in business relations, divides in stakeholder perspectives can constrain advances. There is therefore a need to move beyond agreement on high-level parameters to deeper conversations about what these mean in practice, based on a solid understanding of the complexities and the difficult trade-offs that may arise in advancing inclusiveness in specific value chains or in specific ways.

¹⁷⁵ The difficulty of getting land transfers involving compensation to work for all parties under collective landholding arrangements suggests land transfers to investors should be the option of last resort in such areas.

¹⁷⁶ Cotula and Berger 2017; Franco and Monsalve Suárez 2017; Knight et al., 2016.

References

- Abbott, P.C., C.H. Wallace and E. Tyner (2008) What's driving food prices? Farm Foundation Issue Report, July 2008. Available at: <http://ageconsearch.umn.edu/record/37951/files/FINAL%20WDFP%20REPORT%207-28-08.pdf> (accessed June 1, 2017).
- Achten, W.M.J. and L. V. Verchot (2011) Implications of biodiesel-induced land-use changes for CO₂ emissions: Case studies in tropical America, Africa, and Southeast Asia. *Ecology and Society* 16(4): 14. <http://dx.doi.org/10.5751/ES-04403-160414>
- AFA (2013) Small-scale farmers' engagement with private enterprises: Towards farmer-owned or farmer-led sustainable and inclusive arrangements. *AFA Issue Paper* 5(1): 2-8. Quezon City, Philippines: Asian Farmers' Association for Sustainable Rural Development.
- AFA (n.d.) Farmer-led cooperative marketing: Increasing small-scale farmers' market power in inclusive value chain. Presentation shared via personal communication. Quezon City, Philippines: Asian Farmers' Association for Sustainable Rural Development.
- Anseeuw, W., Alden Wily, L., Cotula, L., and Taylor, M. (2012) *Land Rights and the Rush for Land: Findings of the Global Commercial Pressures on Land Research Project*, Rome: International Land Coalition
- Anseeuw, W., Alden Wily, L., Cotula, L., and Taylor, M. (2012a) *Land Rights and the Rush for Land: Findings of the Global Commercial Pressures on Land Research Project*, Rome: International Land Coalition
- Anseeuw, W., M. Boche, T. Breu, M. Giger, J. Lay, P. Messerli, et al. (2012) *Transnational Land Deals for Agriculture in the Global South. The Land Matrix Partnership*. CDE, CIRAD, GIGA, GIZ, ILC.
- Anseeuw, W., M. Boche, T. Breu, M. Giger, J. Lay, P. Messerli, et al. (2012b) *Transnational Land Deals for Agriculture in the Global South. The Land Matrix Partnership*. CDE, CIRAD, GIGA, GIZ, ILC.
- Barrett, H., B. Ilbery, A. Browne and T. Binns (1999) Globalization and the changing networks of food supply: The importation of fresh horticultural produce from Kenya into the UK. *Transactions of the Institute of British Geographers* 24(2): 159-174.
- Belcher, B., B.M. Rujehan, N. Imang and R. Achdiawan (2004) Rattan, rubber, or oil palm: Cultural and financial considerations for farmers in Kalimantan. *Economic Botany* 58: S77-S87.
- Borras, S.M., Franco, J.C., Isakson, S.R., Levidow, L. & Vervest, P. 2016, "The rise of flex crops and commodities: implications for research", *The Journal of Peasant Studies*, vol. 43, no. 1, pp. 93-115.
- Breilh, J., 2007. Nuevo modelo de acumulacion y agroindustria: Las implicaciones ecologicas y epidemiologicas de la floricultura en Ecuador. *Ciencia e Saude Colectiva*, Rio de Janeiro.
- Bunidarsono, S., Susanti, A. and Zoomers, A. (2013) 'Oil Palm Plantations in Indonesia: The Implications for Migration, Settlement/Resettlement and Local Economic Development', in Z. Fang (ed.) *Biofuels – Economy, Environment and Sustainability*. New York: InTech.
- Cahyadi, E.R. and H. Waibel (2016) Contract farming and vulnerability to poverty among oil palm smallholders in Indonesia. *The Journal of Development Studies* 52(5): 681-695, DOI: 10.1080/00220388.2015.1098627
- CFS (2014) *Principles for Responsible Investment in Agriculture and Food Systems*. The Committee on World Food Security.
- Chamberlain, W., and Anseeuw, W. (2017) (Eds) *Inclusive Businesses in Agriculture. What, how and for whom? Critical insights based on South African cases*, Sun Press
- Chirwa, E., A. Dorward, R. Kachule, I. Kumwenda, J. Kydd, N. Poole, C. Poulton, M. Stockbridge (2005) *Farmer Organisations for Market Access: Principles for Policy and Practice*. Department of Agricultural Sciences, Imperial College, London.
- Colchester, M. and S. Chao (2011) *Oil Palm Expansion in South East Asia: Trends and Implications for Local Communities and Indigenous Peoples*. Forest Peoples Program and Sawit Watch.
- Cooke, F.M. (2012) In the name of poverty alleviation: Experiments with oil palm smallholders and customary land in Sabah, Malaysia. *Asia Pacific Viewpoint* 53(3): 240-253.
- Cooke, F.M., S. Toh and J. Vaz (2011) *Community-investor Business Models: Lessons from the Oil Palm Sector in East Malaysia*. London: IIED.
- Cotula, L. (2012) The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers. *Journal of Peasant Studies* 39(3-4): 649-80.
- Cotula, L. and Berger, T. (eds). (2017) *Improving Accountability in Agricultural Investments: Reflections from Legal Empowerment Initiatives in West Africa* (International Institute for Environment and Development, London: IIED
- Cotula, L. and Leonard, R. (2010) *Alternatives to Land Acquisitions: Agricultural Investment and Collaborative Business Models*, Maputo.
- Cotula, L., S. Vermeulen, R. Leonard and J. Keeley (2009) *Land Grab or Development Opportunity? Agricultural Investment and International Land Deals in Africa*. London and Rome: IIED/FAO/IFAD.
- Cramb, R. A. & Ferraro, D. (2010) "Custom and Capital: A Financial Appraisal of Alternative Arrangements for Large-Scale Oil Palm Development on Customary Land in Sarawak, Malaysia," 2010 Conference (54th), February 10-12, 2010, Adelaide, Australia 59072,

- Australian Agricultural and Resource Economics Society.
- Dammert Bello, J.L. (2017) Contested booms: The politics of oil palm expansion in the Peruvian Amazon. Doctoral dissertation, Clark University Department of Geography.
- Dancer, H. and E. Sulle (2015) Gender implications of agricultural commercialisation: The case of sugarcane production in Kilombero District, Tanzania. *Future Agricultures Working Paper* 118.
- Danielsen, F., H. Beukema, N. D. Burgess, F. Parish, C. A. Bruhl, P. F. Donald, D. Murdiyarso, B. Phalan, L. Reijnders, M. Struebig and E. B. Fitzherbert (2008) Biofuel plantations on forested lands: double jeopardy for biodiversity and climate. *Conservation Biology* 23. <http://dx.doi.org/10.1111/j.1523-1739.2008.01096.x>
- de Koning, M. and de Steenhuijsen Piters, B. (2009) *Farmers as Shareholders: A Close Look at Recent Experience*, Amsterdam, KIT, Bulletin 390.
- Dias de Moraes, M.A.F. and Zilberman, D. (2014) *Production of Ethanol from Sugarcane in Brazil: From State Intervention to a Free Market*. Springer.
- Dolan, C. and J. Humphrey (2004) Changing governance patterns in the trade in fresh vegetables between Africa and the United Kingdom. *Environment and Planning* 36(3): 491-509.
- Dubb, A., I. Scoones and P. Woodhouse (2017) 'The Political Economy of Sugar in Southern Africa – Introduction' (Journal of Southern African Studies, 43, 3 (2017), pp. 447–70).
- Dufey, A., 2008. Impacts of sugarcane bioethanol towards the Millennium Development Goals, in: Zuurbier, P., Vooren, J.v.d. (Eds.), Sugarcane ethanol: contributions to climate change mitigation and the environment. Wageningen Academic Publishers, Wageningen, The Netherlands, pp. 199-225.
- Eaton, C. and Shepherd, A. (2001) *Contract farming: partnerships for growth*, FAO Agricultural Services Bulletin 145.
- Eggleston, G., B.L. Legendre and C. Richard (2001) Effect of harvest method and storage time on cane deterioration, I: Cane quality changes. *International Sugar Journal* 103: 331-338.
- EIA (2015) *Deforestation by Definition: The Peruvian Government Fails to Define Forests as Forests, While Palm Oil Expansion and the Malaysian Influence Threaten the Amazon*. Washington, D.C. and London: Environmental Investigation Agency.
- FAO (2010) A review of existing organizational forms of smallholder farmers' associations and their contractual relationships with other market participants in the East and southern African ACP Region. *EU-AAACP Paper Series* No. 11. Rome.
- FAO (2015) Safeguarding land tenure rights in the context of agricultural investment. Governance of tenure technical guide no. 4
- FAO (2015) Safeguarding land tenure rights in the context of agricultural investment. Governance of tenure technical guide no. 4
- FAO/IFAD/UNCTAD/World Bank (2010) *Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources*.
- Feintrenie, L., Chong, W.K. and Levang, P. (2010) *Why do Farmers Prefer Oil Palm? Lessons Learnt from Bungo District, Indonesia*. *Small-scale Forestry* 9: 379-396.
- Fischer, G., E. Hizsnyik, S. Prieler, M. Shah and H.T. van Velthuizen (2009) *Biofuels and Food Security*. Vienna, Austria: The OPEC Fund for International Development.
- Franco, J. and Monsalve Suárez, S. (2017). *Why Wait for the State? Using the CFS Tenure Guidelines to Recalibrate Political-Legal Struggles for Democratic Land Control*, Third World Quarterly 4
- Friedemann-Sanchez, G. (2006) Assets in intra-household bargaining among women workers in Colombia's cut-flower industry. *Feminist Economics* 12(1-2): 247-269.
- Galiano, A.d.M., A. Vettorassi and V.L. Navarro (2012) Trabalho, saúde e migração nos canaviais da região de Ribeirão Preto (SP), Brasil: o que percebem e sentem os jovens trabalhadores? *Revista Brasileira de Saúde Ocupacional* 37, 51-64.
- GDPRD (2016) Strategic Plan 2016-2020: Championing the transformation of agriculture, food systems and rural livelihoods.
- German, L. A., & Parker, L. (2018) The social construction of "shared growth": Zambia Sugar and the uneven terrain of social benefit. *Journal of Agrarian Change*, DOI: 10.1111/joac.12270
- German, L. and L. Parker (2015) Model Development? Zambia Sugar and the Uneven Terrain of Social Benefit. Paper presented at the World Bank Conference on Land and Poverty, March 23-27, 2015.
- German, L., G.C. Schoneveld and D. Gumbo (2011) The local social and environmental impacts of smallholder-based biofuel investments in Zambia. *Ecology and Society* 16(4): 12.
- German, L.A. (2015) The global land rush: Implications for agricultural communities. *CAB Reviews* 10(33): 1-19.
- Gibbon, P. (2011) Experiences of plantation and large-scale farming in 20th Century Africa. *DIIS Working Paper* no. 20. Copenhagen: Danish Institute for International Studies.
- Gomes M and Glass V. 2012. *New partnerships: Promise or poison to small farmers? Palm oil biofuel production in the Amazon*. Case study 4 In *Biofuel Partnerships: From Battleground to Common Ground*. CORDAID and partners.
- González, R., K. Munguambe, J. Aponte, C. Bavo, D. Nhalungo, E. Macete, P. Alonso, C. Menéndez and D. Naniche (2012) High HIV prevalence in a southern

- semi-rural area of Mozambique: A community-based survey. *HIV Medicine* (2012): 584.
- Goodison, P. (2005) Six months on: What shift is there in the EU approach to EPA negotiations?
- Goodison, P. (2015) The Impact of EU Sugar Reforms on Traditional African Caribbean and Pacific Sugar Exporters. Initiativet for Handel og Udvikling.
- Goodison, P. (2015) The Impact of EU Sugar Reforms on Traditional African Caribbean and Pacific Sugar Exporters. Initiativet for Handel og Udvikling.
- Guo, H., Jolly, R.W. and Zhu, J. (2007) *Contract farming in China: perspectives of farm households and agribusiness firms*, Comparative Economic Studies 49: 285-312.
- Hall, R., Scoones, I. & Tsikata, D. 2017, "Plantations, outgrowers and commercial farming in Africa: agricultural commercialisation and implications for agrarian change", *The Journal of Peasant Studies*, vol. 44, no. 3, pp. 515-537.
- Hermann, R. and U. Grote (2015) Large-scale agro-industrial investments and rural poverty: Evidence from sugarcane in Malawi. *Journal of African Economies* 24(5): 645-676.
- Hickey, S. and A. du Toit (2007) Adverse incorporation, social exclusion and chronic poverty. *CPRC Working Paper* No. 81. Chronic Poverty Research Centre.
- Higgins, A.J., R.C. Muchow, A.V. Rudd and A.W. Ford (1998) Optimising harvest date in sugar production: A case for the Mossman mill region in Australia. *Field Crop Research* 57: 153-162.
- Holden, J.R. and P.J. McGuire (2013) *Irrigation of Sugarcane Manual*. BSES Limited.
- Hought, J., T. Birch-Thomsen, J. Peterson, A. de Neergaard and M. Oelofse (2012) Biofuels, land use change and smallholder livelihoods: A case study from Banteay Chhmar, Cambodia. *Applied Geography* 34: 525-532.
- Hunsberger, C., L. German and A. Goetz (2017 in press) "Unbundling" the biofuel promise: Querying the ability of liquid biofuels to deliver on socio-economic policy expectations. *Energy Policy*. doi: 10.1016/j.enpol.2017.04.017
- IFC (2016a) *Investing in Women's Employment in Agribusiness: Making the Business Case*. Washington, D.C.: International Finance Corporation.
- IFC (2016b) *Investing in Women along Agribusiness Value Chains*. Washington, D.C.: International Finance Corporation.
- ILC (2016) 2016-2021. Rome: International Land Coalition. Available at: http://www.landcoalition.org/sites/default/files/documents/resources/web_en_strategic_framework_2016-2021_spread.pdf (accessed Feb 15, 2017).
- Interlaken Group and RRI (2015) *Respecting Land and Forest Rights: A Guide for Companies*. Washington, D.C.: The Interlaken Group and the Rights and Resources Initiative.
- James, P. and P. Woodhouse (2016) Crisis and differentiation among small-scale sugar cane growers. *Journal of Southern African Studies*. DOI: 10.1080/03057070.2016.1197694
- Kadwa, M. (2013) *An Overview of Sugarcane Supply Chain Inconsistencies*. Pietermaritzburg: School of Engineering, University of KwaZulu-Natal.
- Kelly, S., Vergara, N. and Bammann, H. (2015) *Inclusive Business Models: Guidelines for improving linkages between producer groups and buyers of agricultural produce*, Rome: FAO,
- Kessler, J. J., T. Rood, T. Tekelenburg, and M. Bakkenes. 2007. Biodiversity and Socioeconomic Impacts of Selected Agro-Commodity Production Systems. *The Journal of Environment and Development* 16(2): 131-60.
- Knight, R., Brinkhurst, M. and Vogelsang, J. (2016) *Community Land Protection Facilitators Guide*. Washington DC: Namati
- Koh, L. P. and D. S. Wilcove (2008) Is oil palm agriculture really destroying tropical biodiversity? *Conservation Letters* 1(2): 60-64. <http://dx.doi.org/10.1111/j.1755-263X.2008.00011.x>
- Lahiff, E. (2007) *Business Models in Land Reform*, Cape Town: University of Western Cape, Programme for Land and Agrarian Studies (PLAAS).
- Lehtonen, M. (2011) Social sustainability of the Brazilian bioethanol: Power relations in a centre-periphery perspective. *Biomass & Bioenergy* 35: 2425-2434.
- Little, P.D. (1994) Contract farming and the development question. In: P.D. Little and M.J. Watts (Eds.), *Living Under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, pp. 216-247. Madison, WI: University of Wisconsin Press.
- Little, P.D. and Watts, M.J. (Eds) (1994) *Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*, Madison: University of Wisconsin Press.
- LMC (2005) *EU Sugar Reform: The Implications for the Development of LDC Countries*. Programme of Advisory Support Services for Rural Livelihoods. London: Department for International Development.
- Locke and Henley (2016): *The Implications of Land Grabs and Biofuel Expansion for Food and Nutrition Security in Developing Countries* in Routledge Handbook of Food and Nutrition Security. Edited by Pritchard, B., R. Ortiz, M. Shekar. Routledge. 2016
- Maertens M., L. Colen and J.F.M. Swinnen (2011) Globalisation and poverty in Senegal: A worst case scenario? *European Review of Agricultural Economics* 38(1): 31-54.
- Maertens, M. and Swinnen, J. (2009) *Are African high-value horticulture supply chains bearers of gender inequality?*
- Makombe, E.K. (2011) "I would rather have my land back": Subaltern voices and corporate/state land grab

- in the Save Valley. *Land Deal Politics Initiative Working Paper* no. 20.
- Marti, S. (2008) Losing ground: The human rights impacts of oil palm plantation expansion in Indonesia. Friends of the Earth, LifeMosaic and Sawit Watch. Available at: <http://www.foe.co.uk/resource/reports/losingground-summary.pdf>
- Matenga, C.R. (2016) Outgrowers and livelihoods: The case of Magobbo smallholder block farming in Mazabuka District in Zambia. *Journal of Southern African Studies*. DOI: 10.1080/03057070.2016.1211402
- Mausch, K., D. Mithöfer, S. Asfaw and H. Waibel (2009) Export vegetable production in Kenya under the EurepGAP standard: Is large “more beautiful” than small? *Journal of Food Distribution Research* 40(3): 115-129.
- McCarthy, J. (2010) Processes of inclusion and adverse incorporation: oil palm and agrarian change in Sumatra, Indonesia. *Journal of Peasant Studies* 37(4): 821-850. DOI: 10.1080/03066150.2010.512460
- McCarthy, J. and Cramb, R. (2009) *Policy narratives, landholder engagement, and oil palm expansion on the Malaysian and Indonesian frontiers*.
- McCarthy, J. and Zen, Z. (2010) *Regulating the Oil Palm Boom: Assessing the Effectiveness of Environmental Governance Approaches to Agro-Industrial Pollution in Indonesia*.
- McCarthy, J., J. Vel and S. Afiff (2012) Trajectories of land acquisition and enclosure: Development schemes, virtual land grabs, and green acquisitions in Indonesia’s outer islands. *The Journal of Peasant Studies* 39(2): 521-549.
- McCarthy, J., P. Gillespie and Z. Zen (2012) Swimming upstream: Local Indonesian production networks in “globalized” palm oil production. *World Development* 40(3): 555–69.
- McCulloch, N. and M. Ota (2002) Export horticulture and poverty in Kenya. *IDS Working Paper* 174. Available at: <http://www.ids.ac.uk/files/Wp174.pdf> (accessed March 10, 2017).
- McKersie, B. and M. Hichaambwa (2011) *Feasibility Study for the Enhancement and Extension of Kaleya Smallholder Scheme, Final Report*. Thame, UK: Cardno Emerging Markets Ltd.
- Mena-Vásconez, P., R. Boelens and J. Vos (2016) Food or flowers? Contested transformations of community food security and water use priorities under new legal and market regimes in Ecuador’s highlands. *Journal of Rural Studies* 44: 227-238.
- Minten, B., L. Randrianarison and J. Swinnen (2009) Global retail chains and poor farmers: Evidence from Madagascar. *World Development* 37(11): 1728-1741.
- Mithoefer, D., E. Nang’ole and S. Asfaw (2008) Smallholder access to the export market. The case of vegetables in Kenya. *Outlook on Agriculture* 37(3): 203-211.
- Molenaar, J.W., M. Persch-Orth, S. Lord, C. Clive Taylor and J. Harms (2013) *Diagnostic Study on Indonesian Oil Palm Smallholders: Developing a Better Understanding of their Performance and Potential*. Jakarta: International Finance Corporation (IFC).
- Monson, J. (2009) *Africa’s Freedom Railway: How a Chinese Development Project Changed Lives and Livelihoods in Tanzania*. Bloomington: Indiana University Press.
- Mujenja, F. and Wonani, C. (2012) *Long-term outcomes of agricultural investments: Lessons from Zambia, Zambia: IIED*
- Muriithi, B.W. (2014) *Commercialization of Smallholder Horticultural Farming in Kenya : Poverty, Gender, and Institutional Arrangements*. Frankfurt: Peter Lang GmbH, Internationaler Verlag der Wissenschaften.
- Nayang Dorwana et al. (2011) The local impacts of oil palm expansion in Malaysia: an assessment based on a case study in Sabah state. *CIFOR working paper*, 78. Bogor: CIFOR
- Norris, A.H. and E. Worby (2012) The sexual economy of a sugar plantation: Privatization and social welfare in northern Tanzania. *American Ethnologist* 39(2): 354-370.
- O’Laughlin, B. (2016) Consuming bodies: Health and work in the cane fields in Xinavane. *Journal of Southern African Studies*. DOI: 10.1080/03057070.2016.1190519
- Obidzinski, K., R. Andriani, H. Komarudin and A. Andrianto (2012) Environmental and social impacts of oil palm plantations and their implications for biofuel production in Indonesia. *Ecology and Society* 17.
- Obidzinski, K., R. Andriani, H. Komarudin and A. Andrianto (2012) Environmental and social impacts of oil palm plantations and their implications for biofuel production in Indonesia. *Ecology and Society* 17.
- Okello, J., C. Narrod and D. Roy (2011) Export standards, market institutions and smallholder farmer exclusion from fresh export vegetable high value chains: Experiences from Ethiopia, Kenya and Zambia. *Journal of Agricultural Science* 3(4): 188.
- OLAM (2015) *OLAM Livelihood Charter 2016*. Singapore: OLAM International.
- OLAM (2016) *The OLAM Code of Conduct*. Singapore: OLAM International.
- OLAM (2017) *Olam Plantations, Concessions & Farms Code*. Singapore: OLAM International.
- Ortiz, L. and D. Rodrigues (2006) Case study sugar cane ethanol from Brazil. CREM, Núcleo Amigos da Terra (NAT), Vitea Civilis Institute, São Lourenço da Serra, Brazil, p. 49.
- Oxfam (2014) *Smallholders at risk: Monoculture expansion, land, food and livelihoods in Latin America. OXFAM Briefing Paper* 180.
- Oxfam International (2004) *A sweeter future? The potential for EU sugar reform to contribute to poverty*

- reduction in southern Africa. *Oxfam Briefing Paper* No. 70.
- Oya, C. (2012) 'Contract Farming in Sub-Saharan Africa: A Survey of Approaches, Debates and Issues', *Journal of Agrarian Change*, 12(1): 1–33.
- Porter, M. and Kramer, M. (2011) *Creating Shared Value: How to Reinvent Capitalism – and Unleash a Wave of Innovation and Wealth*
- Potter, L. (2015) Managing oil palm landscapes: A seven-country survey of the modern palm oil industry in Southeast Asia, Latin America and West Africa. *CIFOR Occasional Paper* No. 122. Bogor, Indonesia: Center for International Forestry Research.
- Prowse, M. (2012). Contract farming in developing countries: a review. (A savoir; Vol. 12). Paris: AFD, Agence française de développement.
- Pye O, Daud R, Harmono Y and Tatat. 2012. Precarious lives: Transnational biographies of migrant oil palm workers. *Asia Pacific Viewpoint* 53(3):330–42.
- Pye, O., R. Daud, K. Manurung and S. Siagan (2016) *Workers in the Palm Oil Industry – Exploitation, Resistance and Transnational Solidarity*. Cologne: Stiftung Asienhaus.
- Rankin, M., Nogales, E.G., Santacoloma, P., Mhlanga, N. and Rizzo, C. (2016) *Public-Private Partnerships for Agribusiness Development: A Review of International Experiences*, Rome: Food and Agriculture Organization of the United Nations.
- Rappoldt, A., Sopov, M. and Guijt, J. (2017) *Inclusive Business Models in Agriculture: Aspirational issues and priorities for collaboration*, <http://www.inclusivebusinesshub.org/inclusive-agribusiness/>.
- Review of African Political Economy. Volume 32, 2005 - Issue 104-105. Pages 295-308. Published online: 06 Oct 2011
- Richardson, B. (2010) Big sugar in southern Africa: Rural development and the perverted potential of sugar/ethanol exports. *Journal of Peasant Studies* 37(4): 917–938.
- Richardson, B. (2012) Trade, aid and rural development: EU sugar policy and the experience of Swaziland. Discussion Paper No. 133, European Centre for Development Policy Management.
- Richardson-Ngwenya, P. and B. Richardson (2014) Aid for trade and African agriculture: The bittersweet case of Swazi sugar. *Review of African Political Economy* 41(140): 201–215.
- Rist, L., L. Feintrenie and P. Levang (2010) The livelihood impacts of oil palm: Smallholders in Indonesia. *Biodiversity and Conservation* 19: 1009–1024.
- Rocca, V. (2015) Gender and livelihoods in commercial sugarcane production: A case study of contract farming in Magobbo, Zambia. *Future Agricultures Working Paper* No.118.
- Rulli, M.C., A. Saviori and P. D'Odorico (2012) Global land and water grabbing. *PNAS* 110(3): 892–897.
- Sandker, M., A. Suwarno and B.M. Campbell (2007) Will forests remain in the face of oil palm expansion? Simulating change in Malinau, Indonesia. *Ecology and Society* 12: 37. Available at: <http://www.ecologyandsociety.org/articles/2292.html>
- Schneider, K. and M.K. Gugerty (2010) Gender and Contract Farming in Sub-Saharan Africa: Literature Review. Evans School Policy Analysis and Research. Available at: https://evans.uw.edu/sites/default/files/public/Evans%20UW_Request%2067_Gender%20%26%20Contract%20Farming_03-08-2010.pdf (accessed March 8, 2017).
- Schoneveld, G. C., L. A. German, and E. Nutakor. 2011. Land-based investments for rural development? A grounded analysis of the local impacts of biofuel feedstock plantations in Ghana. *Ecology and Society* 16(4): 10.
- Scoones, I., Mavedzenge and Murimbarimba (2016) Sugar, people and politics in Zimbabwe's Lowveld. *Journal of Southern African Studies*.
- Sheil, D., A. Casson, E. Meijaard, M. Van Noordwijk, J. Gaskell, T. Sunderland-Groves, S. Wertz and M. Kanninen (2009) The impacts and opportunities of oil palm in Southeast Asia. What do we know and what do we need to know? Bogor, Indonesia: Center for International Forestry Research.
- Sime Darby (2014a) *Annual Report 2014*.
- Sime Darby (2014b) *Sime Darby Plantation Sustainability Report 2014*.
- Sinaga, H. (2013) Employment and income of workers on Indonesian oil palm plantations: Food crisis at the micro level. *Future of Food: Journal of Food, Agriculture and Society* 1(2): 64–78.
- Smalley, R., E. Sulle and L. Malale (2014) The role of the state and foreign capital in agricultural commercialisation: The case of sugarcane outgrowers in Kilombero District, Tanzania. *Future Agricultures Working Paper* no. 106.
- SNV (2015) Unleashing potential: Gender and youth inclusive agri-food chains. KIT Working Papers. Available at: http://www.snv.org/public/cms/sites/default/files/explore/download/snv-kit_wps_7-2015.pdf (accessed Feb 17, 2017).
- SNV and WBCSD (2008) *Inclusive Business: Profitable Business for Successful Development*, http://wbcsdserver.org/wbcsdpublications/cd_files/datas/business-solutions/social-impact/pdf/InclusiveBusiness-ProfitableBusinessForSuccessfulDevelopment.pdf
- Soper, R., 2013. Reclaiming development: indigenous community organizations and the flower export industry in the Ecuadorian Highlands. In: Becker, M. (Ed.), *Indigenous and Afro-ecuadorians Facing the Twenty-first Century*. Cambridge Scholars Publishing, Newcastle, pp. 128–149.
- Stray, B.J., C.N. Bezuidenhout and J.H. van Vuuren (2012) An optimisation-based seasonal sugarcane harvest

- scheduling decision support system for commercial growers in South Africa. *Computers and Electronics in Agriculture* 83: 21-31.
- Susila, W.R. (2004) Contribution of oil palm industry to economic growth and poverty alleviation in Indonesia. *Jurnal Litbang Pertanian* 23(3): 107-14.
- Taruvinga, M. (2011) Commercialising subsistence farmers: A benefit or detriment to the poor? MA thesis. Johannesburg: Faculty of Humanities, University of Witwatersrand.
- Therville, C., L. Feintrenie and P. Levang (2010) Farmers' perspectives about agroforests conversion to plantations in Sumatra: Lessons learnt from Bungo District (Jambi, Indonesia). *Forests, Trees and Livelihoods* 20(1): 15-33.
- Thondhlana, G. (2015) Land acquisition for and local livelihood implications of biofuel development in Zimbabwe. *Land Use Policy* 49: 11-19.
- Thorpe, J. and Maestre, M. (2015) *Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains*, IDS-IFAD Report: IDS and IFAD.
- Ulrich, A. (2014) Export-oriented horticultural production in Laikipia, Kenya: Assessing the implications for rural livelihoods. *Sustainability* 6(1): 336-347.
- UN (2015) *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)*. New York: United Nations.
- UNECA (2014) *Guiding Principles on Large Scale Land Based Investments in Africa*. Addis Ababa: United Nations Economic Commission for Africa.
- UNEP (2008) Green Jobs: Towards decent work in a sustainable, low-carbon world. UNEP/ILO/IOE/ITUC.
- Van den Broeck, G. and Maertens, M. (2016) *Horticultural exports and food security in developing countries*
- Van den Broeck, G., Swinnen, J., & Maertens, M. (2017). Global value chains, large-scale farming, and poverty: Long-term effects in Senegal. *Food Policy* 66, 97-107.
- Vargas R. 2012 *Informe Final: Diagnostico sobre la situación de los trabajadores de la agroindustria de la palma en el Magdalena Medio y Meta* Proyecto FOS-FENSUAGRO: Fortalecimiento de las sindicatos en el sector de la palma Africana para mejorar las derechos laborales, con atención específica para la posición de la mujer, 2011-2013.
- Vermeulen, S. and Cotula, L. (2010) *Making the Most of Agricultural Investment: a survey of business models that provide opportunities for smallholders*
- Vermeulen, S. and Cotula, L. (2010) Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders: IIED and FAO
- Von Hellermann P. 2007. Things fall apart? Management, environment and *taungya* farming in Edo State, southern Nigeria. *Africa* 77(3):371-92.
- Vorley, B. (2013) *Markets for the many rather than the few*, London: IIED.
- Vorley, B. and Proctor, F. (2008) *Inclusive Business in Agrifood Markets: Evidence and Action. A report based on proceedings of an international conference held in Beijing, March 5-6, 2008*, London: IIED, Regoverning Markets, http://www.regoverningmarkets.org/en/global/final_syntheses.html
- Vorley, B., Cotula, L., Chan, M. (2012) *Tipping the Balance: Policies to shape agricultural investments and markets in favour of small-scale farmers*, Oxford: Oxfam International.
- Vorley, B., Lundy, M. and MacGregor, J. (2008) *Business models that are inclusive of small farmers*, London: IIED.
- WBCSD (2016) *Reporting Matters: Communicating on the Sustainable Development Goals*. WBCSD 2016 Report
- Wendimu, M.A., A. Henningsen and P. Gibbon (2016) Sugarcane outgrowers in Ethiopia: "Forced" to remain poor? *World Development* 83: 84-97.
- White, J. & B. White (2012) Gendered experiences of dispossession: oil palm expansion in a Dayak Hibun community in West Kalimantan, The Journal of Peasant Studies, 39:3-4, 995-1016, DOI: 10.1080/03066150.2012.676544
- Wiggins, S. and Keats, S. (2013) *Leaping and learning: linking smallholders to markets*, London: ODI.
- Woodhill, J. (2016) *Inclusive Agribusiness: The State of Play Background Working Paper*. Global Donal Platform for Rural Development.
- World Bank (2010) *Rising global interest in farmland and the importance of responsible agricultural investment* (English). Agricultural and Rural Development notes; no. 54. Washington, DC: World Bank.
- World Bank (2014a) *Levelling the Field: Improving Opportunities for Women Farmers in Africa*. Washington, DC: The World Bank.
- World Bank (2014b) The practice of responsible investment principles in larger-scale agricultural investments: Implications for corporate performance and impact on local communities. *Agriculture and Environmental Services Discussion Paper* No. 8. Washington, D.C.: World Bank.
- World Bank (2015) *Investment Climate Reforms: An Independent Evaluation of World Bank Group Support to Reform of Business Regulations*. Washington, D.C.: The World Bank.
- Xia, Y., X. Deng, P. Zhou, K. Shima and J.A.T. da Silva (2006) *The World Floriculture Industry: Dynamics of Production and Markets*. Floriculture, Ornamental and Plant Biotechnology Volume IV, Global Science Books UK.
- Zen, Z., C. Barlow and R. Gondowarsito (2005) Oil palm in Indonesian socio-economic improvement: a review of options. *Working Papers in Trade and Development*.

-
- Canberra: Research School of Pacific and Asian Studies, ANU.
- Zen, Z., J. McCarthy and P. Gillespie (2008) Linking pro-poor development agricultural policy and oil palm cultivation: governance arrangements for landowners in outer island Indonesia. The Australia Indonesia Governance Research Partnership (AIGRP).
- Zilberman, D., G. Hochman, D. Rajagopal, S. Sexton and G. Timilsina (2012) The impact of biofuels on commodity food prices: Assessment of findings. *American Journal of Agricultural Economics* 95(2): 275–281.
- Zoomers, A. (2010) Globalisation and the foreignisation of space: Seven processes driving the current global land grab. *The Journal of Peasant Studies* 37(2): 429-447.

Land: Enhancing Governance for Economic Development (LEGEND) is a DFID programme that aims to improve land rights protection, knowledge and information, and the quality of private sector investment in DFID priority countries. It includes the development and start-up of new DFID country land programmes, alongside knowledge management activities, a challenge fund to support land governance innovations, and management of complementary DFID grants, MoUs and contracts, and supported by a Core Land Support Team.

Readers are encouraged to reproduce material from LEGEND reports for their own publications, as long as they are not being sold commercially. LEGEND requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the LEGEND website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of LEGEND.

This work is licensed under a Creative Commons Attribution-NonCommercial Licence (CC BY-NC 4.0).

All LEGEND reports are available from:

www.landportal.info/partners/legend



This material has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.



UNIVERSITY
of
GREENWICH

Natural
Resources
Institute



**Evidence.
Ideas.
Change.**