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Landscapes of Social Inclusion: Inclusive Value Chain Collaboration through the Lenses of Food Sovereignty and Landscape Governance

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Abstract

Value-chain collaboration (VCC) aims to increase smallholder productivity and market integration. Higher productivity, better incomes, and innovations have been documented, but also exclusionary trends and loss of biological and dietary diversity. New forms of VCC 'beyond the chain' hope to tackle this through collaboration with non-chain actors. Drawing on territorially-embedded VCC, food sovereignty and landscape governance theories, this paper presents a conceptual framework to analyse whether and how inclusive VCC, greater farmer autonomy, and sustainable landscapes can be achieved. Key elements of our approach are knowledge of smallholders' various livelihood trajectories and selective value-chain engagement; multi-stakeholder definition of the sustainability choice space; and smallholder inclusion in adaptive learning and empowerment processes which bring together and integrate different and oft-competing knowledge systems and governance levels. This approach will support further action research in learning platforms in Ghana and South Africa. The paper discusses the link with the broader inclusive development debate.

Keywords: Value-chain collaboration, food sovereignty, smallholder agency, livelihood trajectories, landscape governance, sustainability choice space, learning platforms, inclusive development

Introduction

Smallholders – who are defined as farmers who produce goods and services for both markets and subsistence, based mainly on family labour and limited access to land (Chamberlin, 2008; Cousins, 2011) – produce 80% of all the food grown in Africa and

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Asia, but are among the most marginalised and food-insecure components of rural society (IFAD, 2013a). Governments, NGOs and action researchers have therefore promoted value chain collaboration (VCC) with the private sector as a way to increase farmers' access to technology, inputs and markets, assuming that this would increase their income and overall food security (Bitzer, 2011). This particularly applies to tree crop farmers, whose products (*e.g.* cocoa and macadamia nuts) can be exported to high-value markets with large growth and employment potential (Chamberlin, 2008; Traub, 2012). Ghana and South Africa are among the countries that explicitly promote such forms of VCC (MOFA, 2007; NPC, 2012). Although positive effects on farmers' productivity, income and innovation capacity have been well documented (Swinnen *et al*, 2013; Burnett and Murphy, 2014), scientists and practitioners also warn that VCC may reproduce existing inequalities and power imbalances between value chain actors, lack a genuine representation of producer organisations and smallholders from developing countries, and may not automatically benefit the poor if not properly designed (Sahan and Fischer-Mackey, 2011; Bitzer and Glasbergen, 2015). Examples of risks include growing gender inequalities (Laven, 2010; Bolwig *et al*, 2010; Pyburn, 2014), loss of decision-making power regarding crop choice and marketing, inequitable risk and benefit sharing (Kirsten and Sartorius, 2002; Laven, 2010; Spierenburg *et al*, 2012, Greenberg, 2013), declining dietary diversity (Ecker *et al*, 2012), and biodiversity loss due to production intensification and increasing landscape homogenisation resulting from monoculture development (Donald, 2004; Perfecto *et al*, 2011). This raises the question of how VCC can be made more inclusive, taking into account the most marginalised of those smallholders, as well as the environment.

Existing approaches only provide partial answers to how adverse inclusion in VCC can be avoided. The instrumental view (*e.g.* World Bank, 2007) considers

smallholder integration in VCC as being conditional to technology transfer and increased productivity and income, but tends to ignore diversity among smallholders, power imbalances between value chain actors and sustainability issues. Social action views, mostly emanating from the food sovereignty and agro-ecology movements, emphasise traditional values, knowledge and diversity, and local production-consumption cycles (Altieri and Toledo, 2011), but are generally hostile to value-chain integration (e.g. Holt-Giménez and Altieri, 2013). Value-chain analysis focuses on governance arrangements and power constellations *within* value chains (*e.g.* Kaplinski, 2000; Gereffi *et al*, 2005), and therefore runs the risk of losing sight of the socio-economic, cultural, political, institutional and territorial contexts in which the chains are embedded (Bolwig *et al*, 2010; Helmsing and Vellema, 2011). Agricultural innovations literature acknowledges the importance of contextual factors, but tends to focus on interactions within innovation networks and key institutional actors redistributing resources and transferring skills (*e.g.* Klerkx *et al*,. 2010; Spielman *et al*, 2009).

What is lacking, and what we are proposing here, is a critical approach towards value chain integration and collaboration that takes smallholders' agency and struggle to access food, attain autonomy over production and marketing, and achieve sustainability as a starting point. It thereby looks 'beyond the chain' to include non-commodity (food) production and sustainability issues, and horizontal collaboration with non-chain actors to address these. We do so within the context of a recently commenced research programme, funded by WOTRO Science for Global Development (see acknowledgement), that examines how VCC involving tree-crop farmers in Ghana (cocoa and oil palm) and South Africa (macadamia and avocado) can enhance food sovereignty, inclusive value chain integration, and sustainable landscapes. The framework presented can, however, be applied in any action-oriented research at the

interface between (vertical) chain relationships and (horizontal) collaboration embedded in landscapes.

There are three reasons for focusing on smallholder agency 'beyond the chain'. First, it provides a better understanding of why smallholders differ in their engagement (or capacity to engage) in VCC with the private sector and how this affects processes of inclusion and exclusion. Second, it corresponds with a recent trend within the private sector to 'deliberately work beyond the farm-scale to support food production, ecosystem conservation, and rural livelihoods across entire landscapes in an integrated manner' (Kissinger *et al*, 2013: 1), often in partnership with development and conservation organisations. Third, upcoming landscape approaches that aim to reconcile environment and development through multi-stakeholder negotiation (Sayer *et al*, 2013) increasingly involve agro-food businesses (Kissinger *et al*, 2013), extending VCC from the vertical commodity chain to the geographical, socioeconomic and political space in which the value chain is embedded.

Hence, the objective of this paper is to present a conceptual framework to analyse whether and how inclusive VCC and more equitable terms of engagement, greater autonomy in food production and marketing, and sustainable landscapes can be achieved. We thereby draw on theories on territorially and contextually embedded value chains (Bolwig *et al*, 2010; Bowen, 2010; Helmsing and Vellema, 2011), food sovereignty (Altieri 2009; Edelman, 2014; McMichael, 2014), and landscape governance (Sayer *et al*, 2013; Ros-Tonen *et al*, 2014). Within the framework of this special issue, we also discuss how the presented framework contributes to the broader inclusive development debate (Gupta *et al*, 2015, this issue).

The paper is structured as follows. The next section elaborates on the tendency towards VCC 'beyond the chain' and its implications. After that, we focus on concepts

and approaches for analysing smallholder agency as regards realising food sovereignty and sustainable landscapes. We pay specific attention to the concept of sustainability choice space within the context of multifunctional landscapes (Potschin and Haines-Young, 2006). In the discussion we advocate new institutional spaces to enhance smallholder inclusion in novel forms of VCC and landscape approaches and position the framework within the broader inclusive development debate. In concluding we make suggestions for further research and practice.

Towards territorial grounding of value chain collaboration

VCC is understood in this paper as voluntary associations between different actors in a chain, including producers and buyers and often, but not necessarily, other societal actors such as non-governmental and (in the case of public-private partnerships) governmental organisations (*c.f.* Helmsing and Vellema, 2011). This section provides the most common examples of VCC 'beyond the chain', including public-private partnerships (PPPs); creating social value (CSV) arrangements; and innovation platforms.

PPPs are multipartite arrangements involving (foreign) private firms, the government and parastatal bodies, which sometimes also include NGOs and international aid and lending agencies (Kirsten and Sartorius, 2002). PPPs evolved from the introduction of neo-liberal reforms in the 1980s, which resulted in a withdrawal of the public sector from economic activities and the consequent shift from state to corporate governance (Ton *et al*, 2008; Laven, 2010; Bitzer, 2011). Partnering with the private sector became a way for both the state and farmers to maintain access to credit, agricultural inputs, extension services and marketing channels no longer provided by government marketing organisations and parastatal processing companies (Kirsten and

Sartorius, 2002; Swinnen and Maertens, 2007; Ton *et al*, 2008; Bitzer, 2011). PPPs gained institutional momentum after the World Summit on Sustainable Development in Johannesburg in 2002 and are increasingly advocated in international cooperation as a vehicle for attaining multiple goals, oriented towards both private sector development and sustainability (Laven and Pyburn, 2015). For the private sector, being a partner in a PPP often goes hand-in-hand with access to public funding (*e.g*. matching grants) for investments in innovations and sustainable livelihoods. This explains why PPPs function as a vehicle for investments 'beyond the chain' (or beyond the sector) in which the private partner operates. Examples of PPPs are the Word Cocoa Foundation and Sustainable Tree Crop Programme (STCP) in Côte d'Ivoire, Ghana, Nigeria, Cameroon and Guinea.

A second type of VCC emanated from the corporate social responsibility (CSR) discourse the 1990s. It is generally framed as a response to consumer demands for safe, socially responsible, sustainably, and preferably fairly traded and/or organically produced food (Morsello, 2006; Bitzer, 2011). This discourse is currently shifting towards Creating Shared Values (CSV), defined as 'policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates' (Porter and Kramer, 2011). It is based on the idea that failure to address societal problems (*e.g.* food insecurity or environmental damage) may present internal costs in the form of water shortages, waste of materials, supplier failure or limited labour productivity. In the words of Porter and Kramer (2011: 2), 'Shared value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success. It is not on the margin of what companies do but at the center.' CSV is widely used among global companies that source from smallholders. Examples are Nestlé and Olam

International that are pursuing sustainable sourcing strategies, while aiming at improving smallholder livelihoods and making production more efficient and sustainable by supporting local suppliers' food and commodity production through capacity building (Kissinger *et al*, 2013; www.nestle.com/CSV). It has resulted in new kinds of VCC 'beyond the chain' involving donors, NGOs, entrepreneurs and government agencies assuming that shared value can be created only through collaboration (Porter and Kramer, 2011). In CSR and CSV, smallholders tend to be beneficiaries of the collaboration, rather than active participants.

Critics argue that, despite emancipatory rhetoric regarding ecological, social, ethical and transparent performance, CSR (and CSV for that matter) primarily serve the financial interests of multinational corporations and as a strategy to legitimise their power (Banerjee, 2008). Crane *et al* (2014) acknowledge strengths as being appealing to practitioners and academics, elevating social goals to a business strategy, assigning a clear role for governments, and providing rigour to the 'conscious capitalism' concept. However, they also criticise the concept for not offering anything new compared to CSR, stakeholder management, and social innovation ideas; ignoring inherent tensions between social and economic objectives; being naïve about business compliance with legal and moral standards; and being based on a narrow and corporate-centric view of the role of businesses in society.

The third kind of VCC 'beyond the chain' are innovation platforms. These platforms are not primarily the initiative of value chain actors, but mostly of action research programmes that aim to tackle the institutional causes of limited technology uptake and persistent poverty among smallholders. These include institutional constraints to farmers' self-organisation, collective action and capacity to negotiate agreements between different users; insecure tenure; and a lack of transparent

information flows about prices and stocks, resulting in a mismatch between the technology and knowledge transferred and farmers' realities (Röling *et al*, 2012; Struik *et al*, 2014). To deal with these institutional challenges, action researchers created 'innovation platforms' for joint learning and action with NGOs, policymakers, extension officers, farmers, traders, processors and retailers, where problems are jointly diagnosed, opportunities identified, and scientific and local knowledge combined to undertake action and, hopefully, effect change (Nederlof and Pyburn, 2012; Cullen *et al* 2014). Examples are the Sub-Sahara Challenge Programme (SSA-CP) and Nile Basin Development Challenge (NBDC), both under the umbrella of the Consultative Group for International Agricultural Research (CGIAR), and the Convergence of Sciences: Strengthening Innovation Systems (CoS-SIS) Programme, carried out by a consortium of four research institutes from the Netherlands, Benin, Ghana and Mali (Röling *et al*, 2012; Hounkonnou et al, 2012; Struik *et al,* 2014). These initiatives share the aim of creating a space for smallholders to articulate and negotiate their needs *vis-à-vis* more powerful chain actors (Cullen *et al*, 2014). They represent a decentralised and networked form of VCC that aims to be adaptive to the contingencies associated with complex systems and the uncertain institutional environments in sub-Saharan Africa (Spielman *et al*, 2009). In potential, such platforms go beyond a 'one size fits all' technology transfer and develop more tailored and inclusive ways of learning. In South Africa, similar initiatives emerged in the form of 'Living Labs' (Pitse-Boshomane *et al*, 2008; Leminen *et al*, 2012), but we found no examples of their application in smallholder contexts.[1]

The tendency to extend VCC 'beyond the chain' – with governance agencies in PPPs or with NGOs and research organisations in innovation platforms – has three major implications. First, it results in a broadening of objectives beyond optimising the

value chain, to include the improvement of livelihoods and environmental conditions (Cullen *et al*, 2014). Second, it merges (vertical) commodity chain relations with (horizontal) place-based interactions and effects (Bolwig, 2010; Purmono, 2014), introducing new contexts, actors and enabling factors in which VCC plays out, while also implying that 'effective adaptations to environmental and resource vulnerabilities will need to be inherently 'place based'' (Marsden, 2013: 215). This forms the basis of our objective to bring the analysis of vertical chain relations, smallholder agency and autonomy, and landscape approaches together within the same frame of analysis. Third, it problematizes the role of scientific knowledge in society as being negotiated (not prescriptive) and envisions a role for scientists in supporting existing negotiation processes (Giller *et al*, 2008).

The challenges of inclusive VCC

Actors have various interests, capacities, powers, agency and societal legitimacy as regards organising or influencing several value chain dimensions (production, technology development, marketing, standard-setting) (Klerkx *et al*, 2010). Value chain relations unfold in a conditioning environment. The relationship between a structuring environment and actors' ability to innovate and effectuate change is one of a dialectic 'mutual embeddedness': actors observe and respond to critical dynamics and contingencies of the environment in which they operate and, in doing so, modify that environment (Klerkx *et al*, 2010: 191). For the most marginalised, the barriers for VCC are high and may involve trade-offs and a reduction of their autonomy.

This implies that, despite their apparent pro-poor focus, new forms of VCC are not automatically more inclusive or sustainable. Corporations tend to focus on the 'low hanging fruit' and 'easy win-win projects' rather than on addressing fundamental social

and environmental problems of which they are part (Crane *et al*, 2014: 140). Neither are innovation platforms neutral regarding who is targeted or reached (Pyburn, 2014). Younger and female farmers and those with fewer assets tend to be excluded due to a blindness to the diversity of the very same poor (Barrientos, 2013; IFAD, 2013b; Pyburn, 2014). This raises the question of why one should embark on research into inclusive VCC while there is so much evidence of its adverse effects and exclusion. We do so, first, because we consider engagement in value chains and VCC as (partly) the deliberate choices of smallholders, which is not only backed up by theories on peasant agency (Long, 2008; van der Ploeg, 2014) addressed below, but also by social movements and epistemic communities involving smallholders and farming organisations (Muñoz and Viaña, 2012). It is in the interest of these farmers to analyse the conditions under which they can exert agency to advocate changes regarding the terms on which they engage in VCC. Secondly, we consider it important to grasp the dialectics of autonomy and dependency in VCC and the paradox of diverging outcomes in terms of livelihoods and sustainability. Looking 'beyond the chain' then implies analysing the impacts of VCC on the availability of natural resources and the sustainability of their use at both farm and landscape levels.

Food sovereignty: a focus on smallholder autonomy and agency

This section introduces food sovereignty as a normative principle and analytical concept. Following Altieri and Toledo (2011: 588) food sovereignty is defined as the right to (i) good quality and culturally appropriate food, (ii) smallholder autonomy regarding the way in which food is produced and marketed, and (iii) sustainable production.

Food sovereignty has been described as a programme of action for a more equitable food system 'reconnecting food, nature and community' (Wittman *et al*, 2010) and a 'democratic rebuilding of domestic agricultures' (McMichael, 2014: 2), related to strategic questions of practices, scale and identity. Although contested and expressing a wide array of paradigmatic positions (Edelman, 2014), it provides a common frame of understanding of more or less shared principles regarding the right to nutritious and diverse food, autonomy and sustainability.

This framing is closely associated with agro-ecology; a proposal for small-scale agriculture based on traditional ecological principles; genetic, species and cultural diversity; and local markets, production-consumption cycles, energy and technology (Altieri and Toledo, 2011). Agro-ecology is driven and supported by social movements – farmer-to-farmer networks, peasant and indigenous movements, and organisations of landless farmers (Perfecto *et al*, 2009). It challenges conventional agricultural institutions that are seen as being associated with neo-liberalism, privatisation and corporate control over value chains (Altieri, 2009; Altieri and Toledo, 2011). Seen as the product of individual and collective agency, agro-ecology is considered as a way to prevent or reduce smallholders' dependence on genetically modified crops and external inputs such as agrochemicals and credits, to combat land grabbing and to promote social and environmental equity (Perfecto *et al*, 2009; Rosset, 2011).

Stressing farmers' autonomy, social and environmental justice, and sustainability, the food sovereignty and agro-ecology debates make an essential contribution to the conceptualisation of inclusive VCC and its operationalisation in smallholder contexts. However, the emphasis on local production-consumption cycles and markets, autonomy regarding energy, inputs and technology (Altieri, 2009), and opposition to corporate industrialised agriculture and food regimes (Altieri, 2009) seems

to be at odds with the integration of smallholders in international value chains. Indeed, strong stands have been taken against such integration (*e.g.* Holt-Ginénez and Shattuck, 2011; Holt-Giménez and Altieri, 2013) based on arguments that smallholder modes of production and environmental sustainability worldwide are threatened by dominant market forces (Patel, 2006; Holt-Giménez and Altieri, 2013). Opponents to market integration argue that the dominant trajectory of agricultural development unfolds through a number of crises across different scales, which include the steady erosion of local farming knowledge, a narrowing of (institutional) choices for producers and consumers, and an increased incapacity of food systems to feed the world in a sustainable and healthy manner (Edelman, 2014). As such, these debates foreground struggles for alternative patterns of consumption and modes of production that minimise dependency on industrialised farming and restore sovereign rights of decision-making to community and smallholder levels. This resistance to dominant market forces and neo-liberal agrarian structures emphasises 'development from below' in support of smallholders' multiple livelihood strategies.

Whilst valuing the above problematizing of unequal power in international trade as being central to more inclusive VCC, we take a less radical stand towards smallholder engagement in markets. First, smallholders contribute substantially to export-oriented trade in agricultural commodities, and this trade contributes considerably to their incomes and food security (Vorley *et al*, 2012; Burnett and Murphy, 2014). These farmers are less concerned about inequalities in the global food system than they are about their economic rights and 'bargaining position' in the commodity chains for which they produce (Murphy in Burnett and Murphy, 2014: 7). As Vorley *et al* (2012) suggest, the hostile position towards value-chain integration and international trade may therefore impose an ideological agenda that does not match with

these smallholders' aspirations, and hinders effective partnerships that would help them to realise their goals (Green in Vorley *et al*, 2012: 58). Extending the sovereignty principle to smallholders' choices to invest in the relationships they deem valuable, or have reason to value, is a valid argument for reconsidering the food sovereignty movement's stand on international trade.

Second, we challenge the assumption that complete withdrawal from international trade and value chains equals sovereign control over production and consumption and suggests a revisiting of the notion of agency. In the food sovereignty discourse agency is typically framed as 'resistance'. According to Bernstein (2014: 9) there is the 'larger and heroic scale of resistance' associated with coordinated, internationalised social struggle and the 'smaller mundane, scale' associated with James Scott's *Weapons of the Weak*. Whereas the former entails an emphasis on how peasants mobilise using collective action through social movements together with a progressive state (*c.f.* Borras, 2010; Desmarais 2002), the latter refers to everyday struggles for autonomy at farm level.

For the analysis of these farm-level struggles, we suggest an actor-oriented approach that conceptualises resistance in terms of local agro-ecological practices through which farmers strengthen resilience and food security (Long, 2008; van der Ploeg, 2008). Smallholder agency is strongly linked to processes of endogenous development and growth (Helmsing and Vellema, 2011) that are at once grounded in local interests, availability of resources, place-based identities, smallholder histories of learning and market engagement, as well as a larger conditioning environment (Long, 2008; Klerkx *et al,*, 2010). Locality is problematized, following the notion that local heterogeneity in agricultural patterns cannot be attributed to 'one dominant set of

'driving forces' located in markets, agrarian policy and technology development' (Long and van der Ploeg, 1994: 4).

Smallholder responses to the agrarian crisis are then seen as being expressed through skilled interventions in the organisation of labour and production towards greater autonomy regarding market forces (van der Ploeg, 2010). This conceptualisation foregrounds the notion of 'co-production' between man and nature through which smallholders build resilience by strengthening their natural resource base. They do so through qualitative improvements in soil, labour, farming implements and biodiversity enhancement through crop diversification. In this way they expand their 'ecological capital' and enhance the sustainability of their production (van der Ploeg, 2008; 2014).

Importantly, these smallholder innovations occur through partial or selective engagement in markets and temporal and variable combinations of production in commodity and non-commodity circuits (van der Ploeg, 2008). This dialectic process of engaging with and distancing from the market is key to understanding smallholders' inclusion in and – partially deliberate – exclusion from value-chain relations. Analytically it means that a distinction should be made between different 'degrees of peasantness' (van der Ploeg, 2008: 29-30), which result in variegated configurations of subsistence and market-oriented production and livelihood trajectories. This conceptualisation recognises that smallholders are integrated in differing ways into trade networks and that they do so constructively and creatively. They thereby 're-design and materially rebuild agriculture through the development of new products, services and markets' (van der Ploeg, 2014: 17) to create a multi-functional farming system. In stressing the dynamics in smallholders' livelihood trajectories, we emphasise that these trajectories may lead to 'de-peasantisation' – implying stagnation, increased dependency on external inputs and integration in unequal relationships – but may

equally follow a ‘re-peasantisation’ pathway that marks increased self-reliance and sustainable intensification (van der Ploeg, 2008).

The above discussion of agency and reworking market relationships implies that value-chain relations can be seen as a space for contesting smallholders’ rights and autonomy. Peasant agency as ‘co-production’ and varied modalities of smallholder market integration also establishes a firm link between vertical commodity relations and the horizontal interactions in the landscape that will be further elaborated below.

Smallholder agency at landscape level

Agro-ecology offers a clear proposal for reconciling agricultural production and biodiversity conservation in ‘mosaic landscapes’ by building on traditional ecological knowledge and farming practices based on genetic and crop diversity (Altieri, 2009). However, its focus on localised food systems and deliberate exclusion from the ‘corporate food regime’ (Holt-Giménez and Altieri, 2013) makes the agro-ecology approach less suitable for the analysis of agency of smallholders integrated into international value chains. Smallholders operate at the interface of vertical relationships with chain actors (buyers, processors, exporters) and horizontal interactions within the landscape in which they live and farm (Figure 1). This requires an analysis of agency beyond ‘local autonomy, local markets, local production-consumption cycles, energy and technological sovereignty’ (Altieri, 2009: 104).

[Figure 1 about here]

For this reason we propose positioning the analysis of smallholder agency at the landscape level within the current debate on landscape approaches. We thereby define

landscapes as dynamic configurations of human-nature interactions in geographical spaces of variable scale, determined by both biophysical characteristics and perceptions[2] and a landscape approach as a governance approach steered by institutions through which actors negotiate land-use objectives and trade-offs (*c.f.* Görg, 2007; Pfund, 2010). The broadening playing field of VCC implies increasing synergy with such approaches.

Landscape approaches aim to provide integrative responses to global challenges such as food insecurity, climate change and biodiversity loss by creating multi-functional landscapes where agriculture, fisheries, biodiversity conservation, and maintenance of other environmental services (*e.g.* water provision, carbon sequestration) are increasingly integratede (WWF, 2004; Sayer *et al*, 2013). Known under several labels – *e.g.* 'whole landscape approaches' (DeFries and Rosenzweig, 2010) and 'ecoagriculture' (Scherr and McNeely, 2008) – what they have in common is that they pursue multiple objectives with negotiated and minimised trade-offs between economic, environmental and social interests; are based on multi-stakeholder participation and adaptive learning processes; take a dynamic long-term sustainability perspective; assign a key role for communities and households as producers and stewards of the landscape; and try to involve the most vulnerable groups and protect their livelihoods (Scherr *et al*, 2012; see also Sayer *et al*, 2013). Trees and tree crops in smallholder settings can play an important role in landscape approaches as they potentially contribute to 'climate smart' (Scherr *et al*, 2012; FAO, 2013; Minang *et al*, 2015) and 'sustainable' (O'Farell and Anderson, 2010) landscapes through the provision of food, commodities and environmental services, notably carbon sequestration (Tscharntke *et al*, 2012; Insaidoo *et al*, 2013).

For companies, a landscape approach can be a CSV strategy to deal with the risks of unsustainable sourcing (Kissing *et al*, 2013). Within the context of this paper

the scale under consideration is therefore the sourcing area at the producer end of the value chain.[3] This is the context in which resource problems are identified and articulated, values understood, conflicts resolved and choices made (Potchin and Haines-Young, 2013). It is also the scale at which agency of VCC actors, particularly smallholders, is localised and embedded in structures (institutions, rules and policies) (Minang *et al*, 2015). However, both ecological and institutional phenomena interact across scales and levels (Cash *et al*, 2006), hence a multi-scale and nested approach should be followed in both landscape analysis and the facilitation of landscape approaches (see Minang *et al*, 2015 and below for further details).

Agency within the context of landscape approaches is essentially about smallholders' capacity to negotiate, interact, position themselves and make claims *vis-à-vis* companies, investors, NGOs, and donors; make good choices; and act accordingly (Muñoz and Viaña, 2012: 6). In addition to analysing how smallholders reconstruct their ecological capital at farm level through diversification (van der Ploeg, 2008), the analysis then also focuses on the opportunities and constraints that shape smallholders' capacity to negotiate land-use objectives and trade-offs at landscape level (DeFries and Rosenzweig, 2010; Sayer *et al* 2013). A key element in these negotiations is the 'sustainability choice space'. This concept was coined by Potschin and Haines-Young (2006) to denote different landscape configurations which provide ecosystem goods and services in a sustainable way and in accordance with stakeholders' cultural and economic values. Together they provide a set of landscape scenarios from which stakeholders can choose. Elements of such landscape configurations include (i) biophysical boundaries of ecosystems in the landscape, (ii) outputs of ecosystem goods and services, (iii) the economic, social and cultural values that stakeholders attach to the landscape, and (iv) the risks and the costs they regard as acceptable. At the basis of

negotiating different landscape configurations lies the participatory development of alternative landscape scenarios in a trans-disciplinary approach that combines scientific knowledge of 'neutral' biophysical metrics with stakeholders' local knowledge and social perceptions (*c.f.* Wagner and Gobster, 2007).

Landscapes – such as those based on the sourcing areas of the value chain arrangements that we aim to study – do not necessarily coincide with administrative and jurisdictional boundaries (van Oosten *et al*, 2014). Multi-stakeholder negotiations about sustainable landscapes within the framework of territorially embedded VCC therefore require a new form of landscape governance (Görg *et al*, 2007). We thereby define landscape governance as multi-sector, multi-actor, and multi-level interactions to solve societal problems and create societal opportunities at landscape level (van Oosten *et al*, 2014; Ros-Tonen *et al*, 2014).[4] New institutional arrangements are needed to bring together a broader range of actors than are conventionally involved in landscape planning, facilitate multi-stakeholder processes, negotiate trade-offs and manage conflicts (Colfer and Pfund, 2010). An increasing body of literature is defining 'principles' and 'benchmarks' for institutional arrangements that could steer landscape approaches (Sayer *et al*, 2013) and tested (Ros-Tonen *et al*, 2014 and 2015 (in press); Wambugu *et al*, 2015) (Table 1). These design principles are meant to enable multi-stakeholder interactions that help shape equitable access to, and the sustainable use of, land and resources at landscape level. Examples are given in Box 1.

[Table 1 about here]

[Box 1 about here]

The growing hybrid nature of institutional arrangements resulting from VCC 'beyond the chain' has implications for smallholders' control and autonomy in agro-ecological processes and the re-grounding of farming on ecological capital (van der Ploeg, 2014). The next section discusses the way in which we propose bringing the analysis of agency at farm and landscape level together in a coherent framework to assess whether and how VCC can be made more inclusive.

Discussion and conclusion

We propose a critical yet constructive approach towards analysing new forms of VCC with non-chain actors and their prospects for enhancing smallholders' agency and autonomy both within the chain and the landscape in which the chain is embedded. This approach puts smallholders' agency and empowerment centre stage in the analysis by combining – and contributing to – debates on territorially embedded value chains, food sovereignty, and landscape governance respectively – three fields in which the ability of farmers to exert agency is key to their terms of inclusion.

This combination of strands enriches inclusive development theory – the theme of this special issue – in several ways. First, a territorially embedded value chain perspective provides an analytical lens through which to view the global to local analysis of vulnerability causes, structural constraints, policymaking and governance (Gupta *et al,* 2015, this issue) by positioning vertical VCC in its geographical, social and political-cultural contexts (Bolwig *et al*, 2010; Bowen, 2010, Helmsing and Vellema, 2011). Second, the 'reconstruction of the peasantry' (van der Ploeg, 2014) interpretation of value-chain engagement and disengagement as an act of resistance highlights a link between farmers' agency and autonomy regarding their resource base and sustainability that is typically overlooked in inclusive development approaches.

Third, the focus on diversification and variegated livelihood trajectories enables us to situate empowerment in a production space marked by multiple institutional linkages, public and private actors, and various policies, which is relevant in a context of VCC 'beyond the chain' and landscape approaches. Fourth, the proposed approach recognises that the heterogeneity of responses in the production space may enhance new forms of learning and exchange on sustainable land use at both farm and landscape level. Fifth, the food sovereignty concept stresses self-determination both with regard to production and marketing and sustainability, putting the inclusive development triptych of agency/empowerment, wellbeing and sustainability into a coherent and critical perspective (Figure 2). Sixth, the landscape approach provides a spatial context for multilevel and interactive governance through which multiple land uses, including conservation, and sustainable choice space (Potschin and Haines-Young, 2006) are negotiated among chain and non-chain actors.

[Figure 2 about here]

However the three stances also pose challenges that need to be addressed in further research as well as in practice. First are those related to the analysis of territorially embedded VCC, which include (i) connecting vertical relationships with their place-based contexts; and (ii) dealing with the institutional complexities of including marginalised actors in multi-scale arrangements characterised by unequal power relationships (Helmsing and Vellema, 2011). Second, the notion of food 'as a right' in food sovereignty discourse, and food 'as a commodity' in VCC is inherently conflicting (Hospes, 2013) as illustrated by the debate on whether proponents of food sovereignty should revise their stance on smallholder value-chain participation (Vorley

et al, 2012; Burnett and Murphy, 2014). Where such conflicting norms and values cannot be overcome, win-win outcomes in multi-stakeholder collaborations may not be achieved (Crane *et al*, 2014). Third, landscape approaches face the challenge of translating the institutional design principles into institutional arrangements for smallholder inclusion in allocating and monitoring land use at the level of landscapes. These institutional arrangements are still largely experimental and characterised by significant 'muddling through' (Colfer *et al*, 2010).

These challenges offer scope for further action research for institutional innovation. Building on the ideas outlined by Giller *et al* (2008) on the role of science in multi-stakeholder negotiation processes, within the WOTRO research programme, we intend to do this by actively engaging in 'learning platforms'. We see these learning platforms as arenas for joint learning and negotiated knowledge (Giller *et al*, 2008). They differ from the existing innovation platforms and networks, examples of which were given in the section on territorial grounding of VCC, in their attempt to stimulate new stakeholder coalitions where this is needed to build a bridge between local-level innovation platforms and higher-level multi-stakeholder arrangements and policy communities. Although we will liaise with existing innovation platforms, our primary aim is to mediate between different knowledge systems across different governance levels. We thus hope to contribute to facilitating technological and institutional innovation (Giller *et al*, 2008; Klerkx *et al*, 2009; Devaux *et al* 2010) in situations characterised by power imbalances and different political agendas (O'Farrell and Anderson, 2011).

These learning platforms may act as bridging organisations (Cash *et al*. 2006) and catalysers for innovation, enabling less powerful actors to respond to opportunities by providing 'an arena for knowledge co-production, trust building, sense making,

learning, vertical and horizontal collaboration, and conflict resolution' (Berkes, 2009: 1695). Through these learning platforms we envisage (i) the co-production of knowledge about smallholder strategies and resulting diversity into livelihood trajectories and how these play out in VCC and landscape approaches, (ii) multi-stakeholder definition of the sustainability choice space of commoditised tree-crop farming, and (iii) smallholders' inclusion in adaptive learning processes related to innovations and landscape approaches initiated through VCC. We hope that these platforms provide a space for smallholder inclusion in exploring trade-offs and scenarios that may lead to socially just agricultural systems, equitable VCC, and sustainable landscapes.

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Endnotes

[1] The two applications in rural contexts target GSM and internet services (Siyakhula Living Lab; http://www.openlivinglabs.eu/livinglab/siyakhula-living-lab) and ICT in the retail sector (Sekhukhune Living Lab, http://www.c-rural.eu/Southafrica-LivingLab/) respectively.

[2] This definition obscures a fundamental ontological debate that is beyond the scope of this paper about whether landscapes are 'real' spatial units, with coordinates, biophysical features and attributes, or mental constructs that are 'in the eye of the beholder'.

[3] We acknowledge that this reduces the scale issue to geographical and institutional scales. Jurisdictional, ecological, management, temporal, knowledge and network scales, and levels within these scales (Cash *et al*, 2006) may also play a role in landscape analyses and approaches (Minang *et al*, 2015).

[4] This definition builds on the definition of interactive governance by Kooiman and Bavinck (2013).

References

Altieri, M.A. (2009) Agro-ecology, small farms, and food sovereignty. *Monthly Review* 61(3): 102-113.

Altieri, M.A. and Toledo, V.M. (2011) The agroecological revolution in Latin America: Rescuing nature, ensuring food sovereignty and empowering peasants. *Journal of Peasant Studies* 38(3): 587-612.

Armitage, D. (2005) Adaptive capacity and community-based natural resource management. *Environmental Management* 35(6): 703-715.

Armitage, D., Marschke, M., Plummer, R. (2008) Adaptive co-management and the paradox of learning. *Global Environmental Change* 18(1): 86-98.

Banerjee, S.B. (2008) Corporate Social responsibility: The good, the bad and the ugly. *Critical Sociology* 34(1): 51-79.

Barrientos, S. (2013) *Gender Production Networks: Sustaining Cocoa-Chocolate in Ghana and India.* June 2013. Brooks World Poverty Institute Working Paper No. 186, University of Manchester. Retrieved June 2014 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2278193.

Berkes, F., Folke, C., Colding, J. (eds.) (2003) *Navigating Social-Ecological Systems. Building Resilience for Complexity and Change.* Cambridge: Cambridge University Press.

Berkes, F. (2009) Evolution of co-management: Role of knowledge generation, bridging organizations and social learning. *Journal of environmental management* 90(5): 1692-1702.

Bernstein, H. (2014) Food sovereignty via the 'peasant way': A sceptical view, *The Journal of Peasant Studies* 41(6): 1031-1063.

Bitzer, V. (2011) *Partnering for Change in Chains. On the Capacity of Partnerships to Promote Sustainable Change in Global Agricultural Commodity Chains.* PhD Dissertation. University of Utrecht.

Bitzer, V. and Glasbergen, P. (2015) Business–NGO partnerships in global value chains: Part of the solution or part of the problem of sustainable change? *Current Opinion in Environmental Sustainability* 12: 35-40.

Bolwig, S., Ponte, S., du Toit, A., Riisgard, L. and Halberg, N. (2010) Integrating poverty and environmental concerns in value-chain analysis: A conceptual framework. *Development Policy Review* 28(2): 173-194.

Borras, S. Jr. (2010) The politics of transnational agrarian movements. *Development and Change* 41(5): 771-803.

Bowen, S. (2010) Embedding local places in global spaces: Geographical indications as a territorial development strategy. *Rural Sociology* 75(2): 209-243.

Brasser, A. (2013) Olam International and Rainforest Alliance case study. Reducing risk: Landscape approaches to sustainable sourcing. Washington, DC: Landscapes for People, Food and Nature Initiative.

Burnett, K. and Murphy, S. (2014) What place for international trade in food sovereignty?, *The Journal of Peasant Studies* 41(6): 1065-1084.

Cash, D.W., Adger, W.N., Berkes, F., Garden, P., Lebel, L., Olsson, P., Pritchard, L. and Young, O. (2006) Scale and cross-scale dynamics: Governance and information in a multilevel world. *Ecology and society* 11(2), 8.

Chamberlin, J. (2008) *It's Small World After All: Defining Smallholder Agriculture in Ghana*. Rome: IFPRI. Retrieved May 2014 http://www.ifpri.org/publication/its-small-world-after-all?print.

Colfer, C.J.P. and Pfund, J-P (eds.) *Collaborative Governance of Tropical Landscapes.* London/Washington: Earthscan

Colfer, C.J.P., Pfund, J-P and Sunderland, T. (2010) The essential task of 'muddling through' to better landscape governance. In: C.J.P. Colfer and J.-P. Pfund (eds.) *Collaborative Governance of Tropical Landscapes.* London/Washington: Earthscan (pp. 271-280).

Cousins, B. (2011) What is a smallholder? Class-analytic perspectives on small-scale farming and agrarian reform in South Africa. In: P. Hebinck and C. Shackleton (eds.) *Reforming Land and Resource Use in South Africa. Impact on Livelihoods*. Oxon/New York: Routledge.

Crane, A., Palazzo, G., Spence, L. J., and Matten, D. (2014) Contesting the value of "creating shared value". *California Management Review* 56(2): 130-153.

Cullen, B., Tucker, J., Snyder, K., Lema, Z., and Duncan, A. (2014) An analysis of power dynamics within innovation platforms for natural resource management. *Innovation and Development* 4(2): 259-275.

DeFries, R. and Rosenzweig, C. (2010) Toward a whole-landscape approach for sustainable land use in the tropics. *Proceedings of the National Academy of Sciences* 107(46): 19627-19632.

Desmarais, A.A. (2002) Peasants speak - The Vía Campesina: Consolidating an International peasant and farm movement, *The Journal of Peasant Studies* 29(2): 91-124.

Devaux, A., Andrade-Piedra, J., Horton, D., Ordinola, M., Thiele, G., Thomann, A. and Velasco, C. (2010) *Brokering innovation for sustainable development: The Papa Andina case* (No. 12). ILAC Working Paper.

Dietz, T., Ostrom, E., Stern, P.C. (2003) The struggle to govern the commons. *Science* 302: 1907-1912.

Donald, P.F. (2004) Biodiversity impacts of some agricultural commodity production systems. *Conservation Biology* 18(1): 17-37.

Ecker, O., Trinh Tan, J-F., Alpuerto, V. and Diao, X. (2012) Economic Growth and Agricultural Diversification Matters for Food and Nutrition Security in Ghana. Discussion note #31. Ghana Strategy Support Program. Ann Arbor MI: IFRI.

Edelman, M. (2014) Food sovereignty: Forgotten genealogies and future regulatory challenges. *The Journal of Peasant Studies* 41(6): 959-978.

FAO (Food and Agriculture Organization of the United Nations (2013) *Climate-Smart Agriculture Sourcebook*. Rome: FAO.

Gereffi, G., Humphrey, J. and Sturgeon, T. (2005) The governance of global value chains. *Review of International Political Economy* 12(1): 78–104.

Giller, K.E., Leeuwis, C., Andersson, J.A., Andriesse, W., Brouwer, A., Frost, P., Hebinck, P., Heitkönig, I., van Ittersum, M.K., Koning, N., Ruben, R., Slingerland, M., Udo, H., Veldkamp, T., van de Vijver, C., van Wijk, M.T. and

Windmeijer. P. (2008). Competing claims on natural resources: what role for science? *Ecology and Society* 13(2): 34. [online] URL: http://www.ecologyandsociety.org/vol13/iss2/art34

Görg, C. (2007) Landscape governance: The politics of scale‖ and the natural conditions of places. *Geoforum* 38(5): 954-966.

Greenberg, S. (ed.) (2013) *Smallholders and Agro-Food Value Chains in South Africa: Emerging Practices, Emerging Challenges.* Cape Town: Institute for Poverty, Land and Agrarian Studies, School of Government (PLAAS).

Gupta, J., Termeer, C., Klostermann, J., Meijerink, S., van den Brink; M., Jong, P., Nooteboom, S., and Bergsma, E. (2010) The adaptive capacity wheel: A method to assess the inherent characteristics of institutions to enable the adaptive capacity of society. *Environmental Science and Policy* 13(6): 459–471.

Gupta, J., Pouw, N.R.M., and Ros-Tonen, M.A.F. (2015) Towards an elaborated theory of inclusive development. *European Journal for Development Research* (this issue).

Hart, A.K., Milder, J.C., Estrada-Carmona, N., DeClerck, F.A.J., Harvey, C.A. and Dobie, P. (2015) Integrated landscape initiatives in practice: Assessing experiences from 191 landscapes in Africa and Latin America. In: P.A. Minang, M. van Noordwijk, O.E. Freeman, C. Mbow, J. de Leeuw and D. Catacutan (eds.) Climate-Smart Landscapes.: Multifunctionality in Practice. Nairobi: World Agroforestry Centre (ICRAF).

Helmsing, A.H.J. and Vellema, S. (2011) Governance, inclusion and embedding: Raising the issues. In: A.H.J. Helmsing and S. Vellema (eds.) *Value chains, inclusion and endogenous development contrasting theories and realities*. Oxon/New York: Routledge (pp. 1-16).

Holt-Giménez, E. and Altieri, M.A. (2013) Agro-ecology, food sovereignty, and the new green revolution. *Agro-ecology and Sustainable Food Systems* 37(1): 90-102

Holt-Giménez, E. and Shattuck, A. (2011). Food crises, food regimes and food movements: Rumblings of reform or tides of transformation? *Journal of Peasant Studies* 38(1): 109-144.

Hospes, O. (2013) Food sovereignty: The debate, the deadlock, and a suggested detour. *Agric Hum Values* 31, 119–130.

Hounkonnou, D., Kossou, D., Kuyper, T.W., Leeuwis, C., Nederlof, E.S., Röling, N., Sakyi-Dawson, O. Traoré, M. and van Huis, A. (2012) An innovation systems approach to institutional change: Smallholder development in West Africa. *Agricultural Systems* 108: 74-83.

IFAD (International Fund for Agricultural Development) (2013a) *Smallholders, Food Security, and the Environment.* Rome: IFAD and UNEP.

IFAD (International Fund for Agricultural Development) (2013b) IFAD and public-private partnerships: Selected project experiences. Rome: IFAD. Retrieved May 2014 from http://www.ifad.org/pub/partnerships/ppp.pdf.

Insaidoo, T.F.G., Ros-Tonen, M.A.F. and Acheampong, E. (2013) On-farm tree planting in Ghana's high forest zone: The need to consider carbon payments. In: R. Muradian and L. Rival (eds.) *Governing the provision of ecosystem services*. Studies in Ecological Economics 4. Heidelberg: Springer Publishers (pp 437-463).

Kaplinski, R. (2000) Globalisation and unequalisation: What can be learned from value chain analysis? *The Journal of Development Studies* 37(2): 117-146.

Kirsten, J. and Sartorius, K. (2002) Linking agribusiness and small-scale farmers in developing countries: Is there a new role for contract farming? *Development Southern Africa* 19(4): 503-529.

Kissinger, G., Brasser, A. and Gross, L. (2013) *Scoping Study. Reducing Risk: Landscape Approaches to Sustainable Sourcing.* Washington, DC: Landscapes for People, Food and Nature Initiative.

Klerkx, L., Hall, A. and Leeuwis, C. (2009) Strengthening agricultural innovation capacity: Are innovation brokers the answer? *International Journal of Agricultural Resources, Governance and Ecology* 8(5/6): 409438. doi:10.1504/IJARGE.2009.032643.

Klerkx, L., Aarts N. and Leeuwis, C. (2010) Adaptive management in agricultural innovation systems: The interactions between innovation networks and their environment, *Agricultural Systems* 103(6): 390–400.

Kooiman, .J. and Bavinck, J.M. (2013) Theorizing governability – The interactive governance perspective. In: M. Bavinck, R. Chuenpagdee, S. Jentoft, and J. Kooiman (eds.) *Governability of Fisheries and Aquaculture. Theory and Applications*. MARE Publication Series No. 7. Dordrecht: Springer (pp. 9–30).

Laven, A. C. (2010) *The Risks of Inclusion: Shifts in Governance Processes and Upgrading Opportunities for Cocoa Farmers in Ghana*. (PhD thesis University of Amsterdam). Amsterdam: KIT Publishers.

Laven, A. and Pyburn, R. (2015) Facilitating gender inclusive agri-business. *Knowledge Management for Development Journal* 11(1): 10-30.

Leminen, S., Westerlund, M. and Nyström, A.G. (2012) Living Labs as open-innovation networks. *Technology Innovation Management Review*, September 2012: 6-11.

Long, A. and Ploeg van der, J.D. (1994) Endogenous development: practices and perspectives. In: J.D. van der Ploeg and A. Long (eds.) *Born From Within. Practice and Perspectives of Endogenous Rural Development.* Assen: Van Gorcum

Long, N. (2008) Resistance, agency and counterwork: A theoretical positioning, In: W. Wright and G. Middendorf (eds.) *The Fight Over Food. Producers, Consumers and Activists Challenge the Global Food System.* Pennsylvania: Pennsylvania State University Press (pp. 69-92).

Marsden, T. (2013) Sustainable place-making for sustainability science: The contested case of agri-food and urban–rural relations, *Sustainability Science* 8(2): 213-226

McMichael, P. (2014) Historicizing food sovereignty. *Journal of Peasant Studies* 41(6): 933-957.

Minang, P.A, Dungama, L.A., Alemagi, D. and Noordwijk, M. van (2015) Scale considerations in landscape approaches. In: P.A. Minang, M. van Noordwijk, O.E. Freeman, O.E., C. Mbow, J. de Leeuw, and D. Catacutan (eds.) (2015) *Climate-Smart Landscapes: Multifunctionality in Practice*. Nairobi: World Agroforestry Centre (pp. 121-134).

MOFA (Ministry of Food and Agriculture) (2007) Food and Agriculture Sector Development Policy (FASDEP II). Retrieved May 2014 from http://mofa.gov.gh/site/?page_id=598.

Morsello, C. (2006) Company-Community Non-Timber Forest Product Deals in the Brazilian Amazon: A Review of Opportunities and Problems. *Forest Policy and Economics* 8(4): 485-494.

Muñoz, D and Viaña, J (2012) *Small Producers in Latin America: New Ways of Thinking and Acting in Markets Position.* London/The Hague/La Paz: IIED/HIVOS/Mainumby.

Mwangi, E.,and Wardell, A. (2012) Multi-level governance of forest resources (Editorial to the special feature). *International journal of the Commons* 6(2): 79-103.

Nagendra, H.and Ostrom, E. Polycentric governance of multifunctional forested landscapes. *International Journal of the Commons* 2:104-133.

Nederlof, S. and Pyburn, R. (2012). *One finger cannot lift a rock. Facilitating innovation platforms to Trigger Institutional Change in West Africa*. Amsterdam: KIT Publishers.

NPC (National Planning Commission) (2012) Our future – Make it work. National Development Plan 2030. Pretoria: National Planning Commission. Retrieved May 2014 from http://www.gov.za/documents/detail.php?cid=348761.

O'Farrell, P.J. and Anderson, P.M.L. (2010) Sustainable multifunctional landscapes: a review to implementation. *Current Opinion in Environmental Sustainability* 2(1-2):59-65.

Oosten, C. van, Gunarso, P., Koesoetjahjo, I. and Wiersum, F. (2014) Governing forest landscape restoration: Cases from Indonesia. *Forests* 5(6): 1143-1162.

Pahl-Wostl, C. (2009) A conceptual framework for analysing adaptive capacity and multi-level learning processes in resource governance regimes. *Global Environmental Change* 19(3): 354-365.

Patel, R. (2006) International agrarian restructuring and the practical ethics of peasant movement solidarity. *Journal of Asian and African Studies*, 41(1 and 2): 71-93.

Perfecto, I., Vandermeer, J., and Wright, A. (2009) *Nature's Matrix: Linking Agriculture, Conservation and Food Sovereignty*. London: Earthscan.

Pfund, J.L. (2010) Landscape-scale research for conservation and development in the tropics: fighting persisting challenges. *Current Opinion in Environmental Sustainability* 2(1): 117-126.

Pitse-Boshomane, M.M., Marais, M.A., Morris, C F., Roux, K., Van Rensburg, R., Herselman, M.E., Makan, A.K.and Mulder, I. (2008) Catalysing innovation: The promise of the Living Lab Approach in South Africa. Refereed paper presented at Prato CIRN 2008 Community Informatics Conference: ICTs for Social Inclusion: What is the Reality? Retrieved June 2014 from http://researchspace.csir.co.za/dspace/handle/10204/3224.

Ploeg, J.D. van der (2008) *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. London: Earthscan.

Ploeg, J.D. van der (2010) The peasantries of the twenty-first century: The commoditisation debate revisited. *The Journal of Peasant Studies* 37(1): 1-30.

Ploeg, J.D. van der (2014) Peasant-driven agricultural growth and food sovereignty. *Journal of Peasant Studies* 41(6): 999-1030.

Porter, M.E. and Kramer, M.R. (2011) Creating social value. *Harvard Business Review*11/30/2011. Retrieved June 2014 from http://hbr.org/2011/01/the-big-idea-creating-shared-value/ar/pr.

Potschin, M. and Haines-Young, R. (2006) "Rio+ 10", sustainability science and landscape ecology. *Landscape and Urban Planning* 7593-4): 162-174.

Potschin, M. and Haines-Young, R. (2013) Landscapes, sustainability and the place-based analysis of ecosystem services. *Landscape Ecology* 28(6): 1053-1065.

Purmono, H. (2014) 'The hypothetical landscape' Slide in 'Haze crisis and landscape approach. Retrieved February 2015 from http://www.slideshare.net/CIFOR/haze-crisis-and-landscape-approach.

Pyburn, R. (2014) Gender equitable and inclusive innovation platforms. In: Sanyang, S., Pyburn, R., Mur, R. and Audet-Bélanger, G. (eds.) *Against the Grain and to the Roots. Maize and Cassava Innovation Platforms in West and Central Africa*. Amsterdam: CORAF/WECARD and KIT Publishers.

Röling, N., Hounkonnou, D., Kossou, D., Kuyper, T., Nederlof, S., Sakyi-Dawson, O., Traoré, M. and van Huis, A. (2012) Diagnosing the scope for innovation: Linking smallholder practices and institutional context: Introduction to the special issue. *NJAS-Wageningen Journal of Life Sciences* 60-63:1-6.

Rosset, P. (2011) Food sovereignty and alternative paradigms to confront land grabbing and the food and climate crises. *Development* 54(1): 21–30.

Ros-Tonen, M.A.F., Derkyi, M. and Insaidoo, T.F.G (2014) From co-management to landscape governance: Whither Ghana's modified taungya system*? Forests* 5(12): 2996-3021.

Ros-Tonen, M.A.F., Pouw, N.R.M. and Bavinck, J.M. (2015) Governing beyond cities: The urban-rural interface. In: J. Gupta, K. Pfeffer, H. Verrest and M. Ros-Tonen (eds.) *Geographies of Urban Governance: Advanced Theories, Methods and Practices.* Heidelberg, New York, Dordrecht, London: Springer.

Sahan, E. and Fischer-Mackey, J. (2011) Making markets work for the poor. Oxfam Discussion Paper. Retrieved February 2015 from http://policy-practice.oxfam.org.uk/publications/making-markets-empower-the-poor-programme-perspectives-on-using-markets-to-empo-188950.

Sayer, J., Sunderland, T., Ghazoul, J., Pfund, J.-L, Sheil, D., Meijaard, E., Venter, M., Boedhihartono, A.K., Day, M., Garcia, C., Van Oosten, C. and Buck, L.E. (2013) Ten principles for a landscape approach to reconciling agriculture, conservation, and other competing land uses. PNAS 110(21): 8349-8356.

Scherr, S.J. and McNeely, J.A. (2008) Biodiversity conservation and agricultural sustainability: Towards a new paradigm of 'ecoagriculture'landscapes. *Philosophical Transactions of the Royal Society B: Biological Sciences* 363(1491): 477-494.

Scherr, S., Shames, S. and Friedman, R. (2012) From climate-smart agriculture to climate-smart landscapes. *Agriculture & Food Security* 1:12.

Spierenburg, M., Cousins, B., Bos, A. and Ntsholo, L. (2012). Connecting Communities and Business: Public-Private Partnerships as the Panacea for Land Reform in Limpopo Province, South Africa. In: M. de Bruijn and Dijk, R. van (eds.). *Reforming Land and Resource Use in South Africa. Impact on Livelihoods*. Oxon/New York: Routledge (pp. 161-181).

Spielman, D.J., Ekboir, J. and Davis, K., (2009) The art and science of innovation systems inquiry: Applications to Sub-Saharan African agriculture. *Technology in Society* 31(4): 399–405.

Struik, P.C., Klerkx, L., van Huis, A. and Röling, N.G. (2014) Institutional change towards sustainable agriculture in West Africa. *International Journal of Agricultural Sustainability* 12(3): 203-213.

Swinnen, J. F. and Maertens, M. (2007) Globalization, Privatization, and Vertical Coordination in Food Value Chains in Developing and Transition Countries. *Agricultural Economics* 37(s1): 89-102.

Swinnen, J., Colen, L., and Maertens, M. (2013) Constraints to smallholder participation in high-value agriculture in West Africa, In: Elbehri, A. (ed.) *Rebuilding West Africa's Food Potential.* Rome: FAO/IFAD (pp. 287-314).

Traub, N.L. (2012) Bureau for Food and Agricultural Policy (BFAP): Your partner in decision making. The futures of agriculture. Brief No. 10 - English. Rome: Global Forum on Agricultural Research (GFAR). Retrieved May 2014 from http://www.fao.org/docs/eims/upload/305832/Brief%2010.pdf.

Tscharntke, T., Clough, Y., Wanger, T.C., Jackson, L., Motzke, I., Perfecto, I., Vandermeer, J. and Whitbread, A. (2012). Global food security, biodiversity conservation and the future of agricultural intensification. *Biological Conservation* 151(1): 53-59.

Ton, G., Hagelaar, G., Laven, A. and Vellema, S. (2008) *Chain governance, Sector Policies and Economic Sustainability in Cocoa: A Comparative Analysis of Ghana, Côte d'Ivoire, and Ecuador.* Markets, Chains and Sustainable Development Strategy & Policy paper #12. Wageningen: Wageningen UR.

Vorley, B., Del Pozo-Vergnes, E. and Barnett, A. (2012) *Small Producer Agency in the Globalised Market: Making Choices in a Changing World*. UK and the Netherlands: IIED/HIVOS. Retrieved June 2014 from http://pubs.iied.org/16521IIED.html.

Wagner, M. M. and Gobster, P.H. (2007) Interpreting landscape change: Measured biophysical change and surrounding social context. *Landscape and Urban Planning* 81(1): 67-80.

Wambugu, S.W., Chomba, S.W. and Atela, J. (2015) Institutional arrangements for climare-smart landscapes. In: P.A. Minang, M. van Noordwijk, O.E. Freeman, O.E., C. Mbow, J. de Leeuw, and D. Catacutan (eds.) (2015) *Climate-Smart*

Landscapes: Multifunctionality in Practice. Nairobi: World Agroforestry Centre (pp. 257-273).

Wittman, H., Desmarais, A.A. and Wiebe, N. (eds.) (2010) *Food Sovereignty. Reconnecting Food, Nature and Community*. Oakland CA: Food First.

World Bank (2007) *World Development Report 2008: Agriculture for Development.* Washington, DC: World Bank.

WWF (World Wide Fund for Nature) (2004) *Integrating Forest Protection, Management and Restoration at a Landscape Scale*. Gland: WWF Forests for Life Programme.

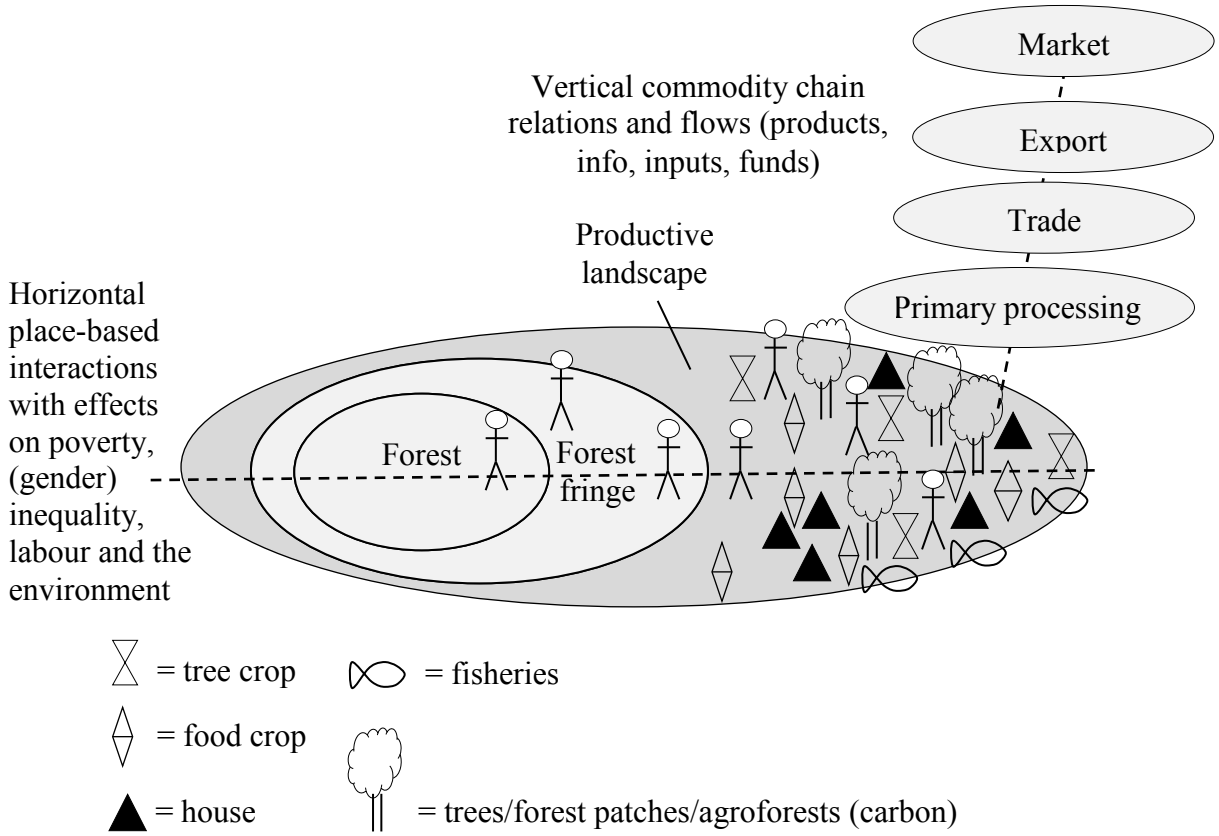

Figure 1. Territorially embedded value chain collaboration (after Bolwig *et al*, 2010 and Purnomo, 2014).

Box 1. Landscape approaches in practice

An extensive review of 191 landscape approaches in Africa and Latin America (Hart *et al*, 2015) reveals commonalities regarding (i) a focus on mosaic landscapes (eight land-cover/land-use types on average), (ii) an integrated approach with 79% of the initiatives holistically targeting agriculture, conservation, livelihoods and multi-stakeholder coordination; (iii) a primacy of conservation and sustainable management goals as a motivation to start the initiative; (iv) involvement of multiple stakeholder groups (10 on average per initiative); and (v) a bias in investments towards capacity building, institutional planning and stakeholder coordination. Major differences exist in scale (from tens to tens of thousands of km^2) and population size (from a few hundred to millions of people). Institutionally, most initiatives are based on platforms for stakeholder mobilisation and negotiation.

The case of a corporation-driven landscape approach initiated by agribusiness Olam International in West Africa's cocoa sector provides more institutional details, revealing engagement in multiple and nested institutions from local to global (Kissinger *et al*, 2013; Brasser, 2013):

- Local tenure arrangements, negotiated with traditional authorities and concession holders;
- A national multi-stakeholder platform, involving the Ghana Forestry Commission to negotiate better tenure arrangements for cocoa farmers and the integration of cocoa farming in carbon schemes;
- A certification scheme with the Rainforest Alliance to enhance smallholders' income through certification of 'climate friendly cocoa'.

Table 1. Design principles for institutions in landscape approaches (adapted from Ros-Tonen *et al*, 2014: 3001-2)

Principle	Dimensions	Authors
Multi-stakeholder negotiation	• Negotiated objectives, change logic, and trade-offs	Sayer *et al*, 2013
	• Participatory and collaborative processes	Sherr *et al*, 2012; Wambugu *et al*, 2015
Polycentrism	• Hybridity of arrangements with clear rights and responsibilities, legal options for self-organisation	Nagrenda and Ostrom, 2012
	• Multi-scale and multi-level governance	Mwangi and Wardell, 2012; Sayer *et al*, 2013
Continual learning	• Single loop learning (improving daily practices), double loop learning (challenging underlying assumptions), and triple loop learning (transforming underlying norms and values)	Armitage *et al*, 2008; Pahl-Wostl, 2009
	• Building institutional memory	Gupta *et al*, 2010
	• Participatory monitoring and evaluation	Sayer *et al*, 2013; Wambugu *et al*. 2015
Adaptive capacity	• Being prepared for change	Dietz *et al*, 2003
	• Willingness to engage in collective decision making and share power	Berkes *et al*, 2003; Armitage, 2005
	• Accept a diversity of solutions, actors and institutions	Berkes *et al*, 2003; Armitage, 2005; Gupta *et al*, 2010
	• Room for autonomous change	Gupta *et al*, 2010
	• Building adaptive capacity	Sayer *et al*, 2013
Gender sensitivity	• Taking account of gender roles, rights and values in resource access, collaboration and equitable benefit sharing; representation of women	Wambugu *et al*. 2015

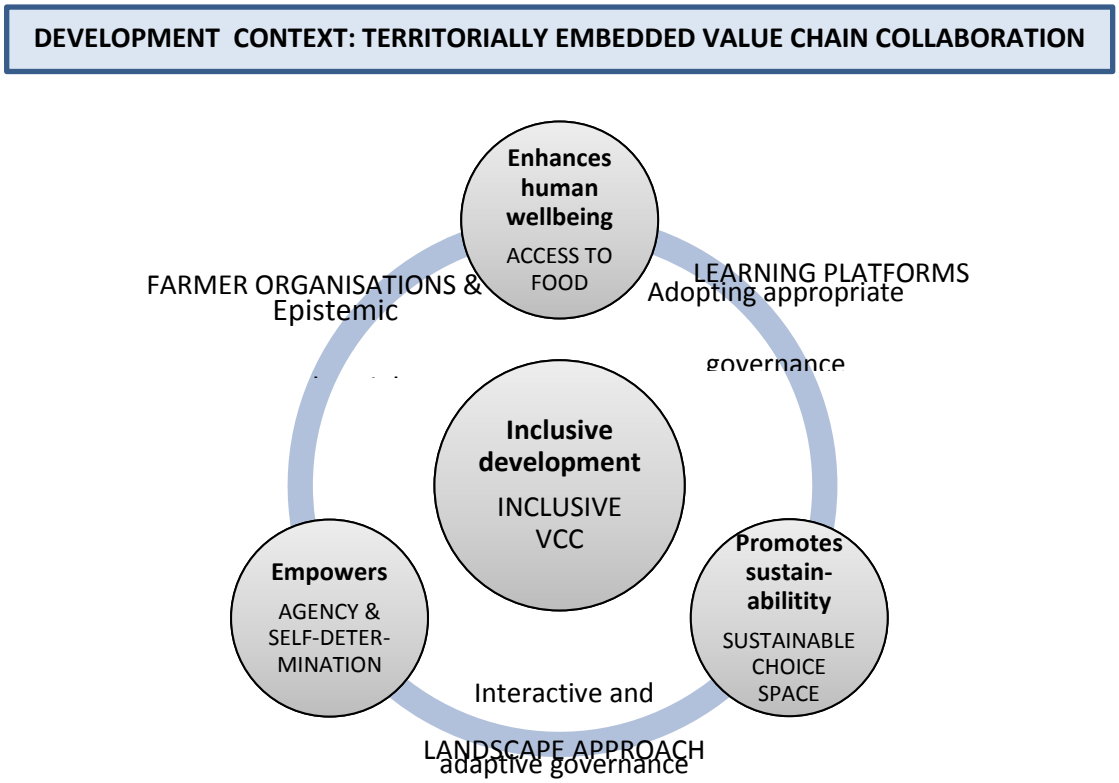

Figure 2. VCC 'beyond the chain' in an inclusive development perspective (*c.f.* Gupta *et al*, 2015, this issue)