



Contents lists available at ScienceDirect

## World Development

journal homepage: [www.elsevier.com/locate/worlddev](http://www.elsevier.com/locate/worlddev)

## Procedural Justice in Value Chains Through Public–private Partnerships

Jodie Thorpe

Institute of Development Studies, UK



## ARTICLE INFO

## Article history:

Accepted 8 October 2017

Available online 22 November 2017

## Key words:

public–private partnerships  
 value chain governance  
 procedural justice  
 farmer agency

## SUMMARY

This paper is about making agricultural value chains work for smallholder farmers, and the way that governments can achieve this aim through public–private partnerships (PPPs). Applied to agricultural value chains, PPPs seek to catalyze new investments, support chain upgrading, or improve the performance of poorly functioning chains through joint activities that capitalize on the complementary resources and competencies of public and private partners. Smallholder farmers are frequently the intended beneficiaries. However, there is little understanding of how the terms of value chain participation affect farmer perceptions of and behavior within chains, or the role of the public sector in influencing these arrangements. This paper analyzes in-depth case studies from Ghana, Indonesia, Rwanda, and Uganda to better understand a surprising empirical finding: that farmers that experience strong PPP results in terms of productivity and incomes may nevertheless remain dissatisfied, while those experiencing much more modest gains can view the PPP favorably. At the heart is an analytical framework based on five attributes of “procedural justice”. It finds that public sector actors, through PPPs, are able to shape governance within value chains, influencing the relative skills, knowledge, and resources which different actors possess, the way that farmers are organized to engage in the value chain, and the attributes of procedural justice reflected in chain arrangements. Where procedural justice is weak, farmers are more likely to exit or neglect the arrangements, leaving the value chain underperforming with sub-optimal outcomes for all: for farmers, for lead firms, and for government agencies. Government involvement in value chains should be premised on facilitating relationships that are more procedurally just than those which would be expected to arise through the market alone.

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## 1. Introduction

This paper is about making agricultural value chains work for smallholder farmers, and the way that governments can achieve this aim through public–private partnerships (PPPs). Agriculture has traditionally been dominated by market arrangements involving many farmers and many buyers of undifferentiated commodities. Since the 1980s, however, the sector has changed dramatically. New corporate strategies, changes in regulation and standards, greater competition, and changing consumer demands have meant a higher degree of explicit coordination such that these loose trading relationships have been replaced by tightly structured “value chains” that spatially link farmers and firms (Dolan & Humphrey, 2004; Gereffi, Humphrey, & Sturgeon, 2005; Gibbon & Ponte, 2005; Lee, Gereffi, & Beauvais, 2012). The result has been the emergence of networked forms of value chain governance arrangements which are neither arm’s length markets nor characterized by vertically integrated corporations, but in which

“lead firms” exert varying degrees of power to explicitly coordinate production (Gereffi *et al.*, 2005).

Partnerships that engage companies in development cooperation are part of a recent trend toward private sector development and market-based approaches to poverty reduction (Humphrey, Spratt, Thorpe, & Henson, 2014). Spending by members of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee through public–private mechanisms, for example, rose from US\$84.8 mn in 2005 to US\$671.4 mn in 2015 (OECD, 2016). These include public–private approaches to boost agricultural investment that enables smallholders to access new value chains and derive greater benefits from chain participation. However, the findings in this paper suggest that investment alone is insufficient to achieve these outcomes. The arrangements facilitated by the PPPs and the value chain relationships they catalyze also matter.

The empirical work that underpins this paper was carried out within the project “Enabling Factors for Public–Private Partnerships in Agriculture”, supported by the International Fund for

Agricultural Development (IFAD) during 2014–15.<sup>1</sup> Four case studies in Ghana, Indonesia, Rwanda, and Uganda were developed, identifying enabling factors for agricultural value chain PPPs and outcomes for smallholder farmers. While the PPPs all supported productivity increases with benefits for households and communities, productivity was negatively affected by farmer failure to implement new production techniques or apply new inputs as expected. More surprisingly, farmers in the PPP with the strongest achievements (in terms of productivity and farmer incomes) expressed dissatisfaction with the arrangements, while farmers experiencing much more modest gains were more positive. This unexpected result prompted a systematic re-analysis of the case evidence to understand how value chain arrangements that strengthen farmer satisfaction and commitment can be catalyzed by PPPs.

The paper draws on theoretical insights from three fields: value chain governance, inter-organizational behavior, and PPPs to analyze the case evidence. It asks:

- What aspects of agricultural value chain performance influence farmer perceptions and commitment?
- What are the arrangements within agricultural value chains that influence this performance?
- How can the public sector influence these arrangements through PPPs?

## 2. Agricultural value chains and public–private partnerships

### (a) Agricultural value chains and smallholder inclusion

The global value chain literature analyzes chains of spatially connected activities to bring products that consumers, including the character of inter-firm linkages, the role of institutions in coordinating activities, and the distribution of power in the chain. The chain is governed by a “lead firm” which sets and enforces terms of participation, directs the allocation of resources and coordinates chain activities related to prices, standards, inputs, or processes used (Gereffi *et al.*, 2005; Ponte & Gibbon, 2005). The lead firm determines how rewards are distributed in the chain and the prospects for firms to upgrade through better products, processes or higher value activities (Henson, 2011; Humphrey & Schmitz, 2002; Ponte & Gibbon, 2005; Sturgeon, 2008).

Gereffi *et al.* (2005) identify five governance types: market, modular, relational, captive, and hierarchy; representing a spectrum in the explicit coordination and power asymmetry between lead firms and others. For example, market governance involves arm’s-length relationships between many suppliers and buyers, where the product is standardized and the cost of switching to new partners is low; relational governance involves interdependence between the supplier and lead firm, with a high degree of interaction and explicit coordination, where the cost of switching to new partners is high for both parties; while in captive governance, the supplier’s output is dominated by the lead firm to meet its requirements, often under a high degree of control which limits the likelihood of suppliers acting in an opportunistic way.

Through agricultural value chains, smallholders have been increasingly integrated into the global economy, and lead firms have increasingly shaped farm-level activities. Multi-national supermarkets and manufacturers have penetrated upstream and many smallholders have become transactionally dependent on these companies and beholden to international public and private standards (Dolan & Humphrey, 2004; Neilson, 2008; Tran, Bailey, Wilson, & Phillips, 2013). Farmers often benefit from access to mar-

kets and technical guidance for process or product upgrading, but through arrangements designed to reduce opportunistic behaviors (e.g., side selling) and with limited potential for functional upgrading (e.g., into higher value processing) (Fitter & Kaplinsky, 2001; Neilson, 2008). While specific opportunities and constraints are often contingent on context-specific arrangements (Bain, 2010; Harvey, 2007; Lee *et al.*, 2012; Staritz, Gereffi, & Cattaneo, 2011; Tran *et al.*, 2013), small-scale farmers in developing countries are commonly either drawn into highly unequal relationships of dependency or are marginalized from more lucrative market opportunities (Dolan & Humphrey, 2004; Fitter & Kaplinsky, 2001; Maertens & Swinnen, 2009; Schmitz, 2006; Tran *et al.*, 2013).

### (b) Public–private partnerships and agricultural value chains

The study of global value chains arose in the context of the “re-treat of the state” (Strange, 1996) and its preeminent concern is lead firm chain governance. However, a small but growing number of papers now draw attention to the “(re) insertion of the state” (Adolf, Bush, & Vellema, 2016: 79) and its influence over value chains in developing countries (Adolf *et al.*, 2016; Bitzer & Glasbergen, 2010; Gereffi, 2014; Vellema & van Wijk, 2015). Research on “Global Production Networks”, which shares many conceptual features with value chain analysis, also sets analytical boundaries that include states and other actors such as civil society, consumers, and labor organizations (Coe, Dicken, & Hess, 2008; Henderson, Dicken, Hess, Coe, & Yeung, 2002). In agriculture, national governments regulate firms and farmers, while also enabling or constraining farmer upgrading through the institutional, legal, and infrastructural environment they create, which affect, *inter alia*, the ease of trade, the potential for product aggregation, the flow of information, and access to resources (Neilson, 2008; Tran *et al.*, 2013; Trienekens, 2011; Vieira, 2006). However, significant questions remain about the degree to which public and private interactions can be coordinated; their respective roles, responsibilities, and resources (Macdonald, 2007); and whether and how states can use value chains and lead firms to reinforce public policy goals (Adolf *et al.*, 2016; Vellema & van Wijk, 2015).

Public–private partnerships (PPPs) are one response to coordinating public and private resources toward a common goal. “PPP” has been used to refer to a wide range of relationships without a common definition. For this study, they are defined as arrangements between companies and governments based on shared goals (although generally different underlying interests), which seek to capitalize on different but complementary resources and competencies (Bitzer & Glasbergen, 2010; Bitzer, Glasbergen, & Arts, 2013), through jointly planned and executed activities. Specifically in agricultural value chains, PPPs seek to catalyze new investments, support chain upgrading or improve the performance of poorly functioning chains by addressing market and governance failures (Narrod *et al.*, 2009; Poulton & Macartney, 2012). Smallholder farmers are frequently the intended beneficiaries, where PPPs create pre-conditions for farmer inclusion, and improved incomes and well-being (Bitzer *et al.*, 2013), although other goals such as employment generation, improved nutrition, or import substitution may (also) be sought.

The evidence base of agricultural value chain PPPs is limited. There are few detailed, independent, impact evaluations (Gregoratti, 2011; Kolk, van Tulder, & Kostwinder, 2008; Poulton & Macartney, 2012; Rein & Stott, 2009), and the relative newness of many partnerships (Poulton & Macartney, 2012) is an additional impediment. Where evidence is available, it suggests that PPPs do counter the tendency for high value chains to marginalize smallholders (Abdulsamad, Stokes, & Gereffi, 2015; Bitzer & Glasbergen, 2010; Narrod *et al.*, 2009) by supporting human capital development and knowledge transfer, or investments in infrastruc-

<sup>1</sup> [www.ids.ac.uk/project/public-private-partnerships-ppps-in-agriculture-enabling-factors-and-impact-on-the-rural-poor](http://www.ids.ac.uk/project/public-private-partnerships-ppps-in-agriculture-enabling-factors-and-impact-on-the-rural-poor) (last accessed December 30, 2016).

ture (Bitzer *et al.*, 2013; Okello, Narrod, & Roy, 2011). PPPs generally work through producer organizations (POs) as the chosen instrument to promote smallholder inclusion (Bitzer *et al.*, 2013), either through existing POs or by encouraging the formation of new ones. However, the results of PPPs in terms of broader farmer empowerment are mixed. Some find that partnerships hold the potential for price premiums and appear to raise farmer incomes (Bitzer & Glasbergen, 2010; Bitzer *et al.*, 2013), others emphasize that economic growth does not necessarily translate into household benefits (Abdulsamad *et al.*, 2015). There is general recognition, however, of the importance of POs and their empowerment in order to capture these wider gains (Abdulsamad *et al.*, 2015; Bitzer & Glasbergen, 2010; Bitzer *et al.*, 2013).

#### (c) Farmer agency within value chains

The value chain literature emphasizes the power of the lead firm to coordinate production activity. By implication, producers are forced to accept lead firm discipline in exchange for access to markets and upgrading opportunities. Yet other studies make it clear that farmers are not powerless, even within global value chains. They can mobilize resources and forge alliances to advance their interests (Coe *et al.*, 2008; Gregoratti, 2011; Levy, 2008; Schipmann & Qaim, 2011; Vellema & van Wijk, 2015).

Farmers exert agency through the everyday decisions they make regarding the crops they plant, the farming techniques they employ or the marketing channels they choose, with implications for value chain success. Value chain inclusion creates the expectation that farmers will invest resources in advancing their relationship with buyers in the chain, in preference to firms outside it. However, farmer willingness to participate in chain coordination will be at least partly determined by how they experience value chain relationships and the degree to which they trust their value chain partners (Gounaris, 2005; Schipmann & Qaim, 2011). Where coordination is achieved, it can lead to improvements in productivity, quality, and efficiency, with benefits to all parties involved (Boniface, Gyau, Stringer, & Umberger, 2010; Gyau & Spiller, 2007; Masuku & Kirsten, 2004). Yet in agriculture, farmers have been used to more arm's length and often adversarial relationships with buyers, and are often suspicious of new chain arrangements based on collaboration (Gounaris, 2005; Schipmann & Qaim, 2011; Stevenson & Pirog, 2008).

Producer organizations support smallholder inclusion in value chains by creating economies of scale and reducing transaction costs, and PPPs therefore often prioritize the development of POs. However, POs also enable collective farmer agency; the ability to take action for self-determination and challenge decisions perceived as detrimental to their welfare (Gregoratti, 2011). While in principle PPP efforts to organize POs may offer advantages to farmers and are to be welcomed, they can also be deeply problematic (Gregoratti, 2011; Neilson, 2008; Okello *et al.*, 2011). Engagement of POs in high value chains may weaken agency by exposing fragile organizations to risk, e.g., financial debt, that they are not well positioned to manage or leave them dependent on external assistance (Bitzer *et al.*, 2013; Neilson, 2008). Organizations initiated or controlled externally may have agendas that do not align with farmer priorities, and fail to establish social and political functions that underpin collective agency (Bitzer *et al.*, 2013).

#### (d) Inter-organizational behavior and procedural justice

The management literature includes a series of studies on the behavior of actors (e.g., firms and employees) within collaborative arrangements like value chains (Kumar, 1996; Kumar, Scheer, & Steenkamp, 1995; Narasimhan, Narayanan, & Srinivasan, 2013; Nor, Perumal, & Hussin, 2011; Yilmaz, Sezen, & Kabadayi, 2004).

It builds on earlier work in the field of industrial organizational psychology (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). These studies find that commitment to coordinated chain relationships is influenced by perceptions of justice within the arrangements, and that justice has two dimensions: distributive and procedural. *Distributive* justice is the perception of the fairness of the *outcomes* of the value chain, while *procedural* justice refers to perceptions of the fairness of the *behavior and decision-making procedures* by which the more powerful party deals with the weaker or more vulnerable party (Kumar *et al.*, 1995). Both types of justice influence commitment, with some evidence that the effect is greater for procedural than for distributive justice (Hornibrook, Fearne, & Lazzarin, 2009; Nor *et al.*, 2011; Yilmaz *et al.*, 2004). While this result may seem counter-intuitive, it makes sense if one considers that procedures are more obviously and directly in the control of the more powerful party; while economic outcomes are heavily influenced by external factors, such as economic cycles, currency movements, or weather events. Procedures can be more enduring over time (Yilmaz *et al.*, 2004), especially in contexts characterized by high volatility, and as such are indicators of the likely future behavior of the lead firm and future rewards to other chain actors (Hornibrook *et al.*, 2009; Kumar *et al.*, 1995; Nor *et al.*, 2011).

Although the concepts of distributive and procedural justice arise from the studies of industrial psychology and supply chain management, some authors have employed them in the analysis of agricultural value chains, although largely in a developed world context (Fearne, Duffy, & Hornibrook, 2004; Kröger & Schäfer, 2014; Stevenson & Pirog, 2008). These studies find that there is heterogeneity in the practices of buyers and the perceptions of suppliers in relation to value chain fairness (Fearne *et al.*, 2004). Distributive and procedural justice in agricultural value chains are closely linked, with procedural justice a critical component of effective chain governance. However, in standards regimes in agriculture, such as organic and Fairtrade, the procedural aspects of justice are under-developed, and there is little reflection of the degree to which procedural justice can contribute to distributive justice (Kröger & Schäfer, 2014).

#### (e) Knowledge gap

Where evidence is available, existing research finds that PPPs applied to agricultural value chains have enabled smallholder inclusion. For example, PPPs enable human capital development and knowledge transfer or investments in infrastructure, leading to greater yields and (in some cases) improved farmer incomes. However, the literature largely fails to explore how the terms of value chain participation affect farmer perceptions of and behavior within chains, or the role of the public sector in influencing these arrangements. The rest of this paper addresses this gap through an exploration of empirical data from four in-depth case studies to better understand how these PPPs shaped value chain relationships and outcomes, and the implications for procedural justice. The analytical framework, developed in the next section, is grounded in principles and attributes of procedural justice.

### 3. Attributes of procedural justice in agricultural value chains

The analytical framework is based on the concept of procedural justice, defined as the fairness of the behavior of more powerful actors in the chain and of their decision-making procedures. Five attributes of procedural justice are identified as relevant to firm–farmer relationships in agricultural value chains, and related to core principles of procedural justice as set out in the management literature (Kumar *et al.*, 1995; Yilmaz *et al.*, 2004): impartiality—the consistent application of rules and procedures; refutability—the

**Table 1**  
Attributes of procedural justice in agricultural value chains

Attribute	Characteristics include	Principles supported	Sources
Bilateral communication channels	Honest and open communications Opportunities to voice objections and viewpoints Frequent informal communications	Refutability Explanation Knowledgeability	Kumar et al. (1995), Yilmaz et al. (2004), Brown, Cobb, and Lusch (2006), Kröger and Schäfer (2014)
Transparency of policies and decisions affecting farmers	Transparency in policies, procedures, plans and objectives, including explaining and ensuring understanding of these Advanced notice for changes to agreements, and reasonable justification based on objective/factual data Price and market transparency (e.g., crop prices, input costs) Collective negotiations, e.g., through roundtables or committees	Impartiality Explanation	Yilmaz et al. (2004), Kröger and Schäfer (2014)
Conflict resolution	Serious consideration of complaints and suggestions and acting on this feedback Conflict resolution measures, such as neutral complaints boards	Refutability	Kumar et al. (1995), Brown et al. (2006), Kröger and Schäfer (2014)
Informal long-term agreements	Agreements based on mutual expectations and understanding (“normative contracting”), rather than on formal contracts Consistent and stable policies and decision making	Impartiality Knowledgeability	Brown et al. (2006), Kröger and Schäfer (2014)
Countervailing power by farmers	Countervailing power held by the more vulnerable party, e.g., through brands that link consumer to producer; when the weaker party owns a minority stake in operations of the stronger party, particularly where the stake is large enough to create mutuality Business depends on the economic sustainability of the farmers	Interdependence	Stevenson and Pirog (2008), Bloom and Hinrichs (2010), Leventhal (1980), Schulze et al. (2007)

Source: Author's own, based on references cited.

ability of the weaker party to voice objections and participate in decisions; explanation—the stronger party's willingness to explain decisions and actions; knowledgeability—the stronger party's knowledge of the operating context of the weaker party; and interdependence—the dependence of the stronger party on the relationship with the weaker party to achieve its goals, and vice versa.<sup>2</sup> These attributes, summarized in Table 1 and defined below, affect the extent to which the weaker party will perceive that they receive just treatment in relation to the stronger party and expect the stronger party will act in ways that protect or promote their interests.

The first four attributes are derived from the literature on fairness in inter-organizational behavior (sources indicated in table). The fifth attribute—that of countervailing power—arises in Leventhal (1980), who proposes that actors are likely to attribute greater fairness when they have some control over the allocative process. It is also supported by findings in papers which deal with relationships in agricultural value chains (Bloom & Hinrichs, 2010; Schulze, Wocken, & Spiller, 2007; Stevenson & Pirog, 2008). The five attributes are:

*Bilateral communication channels:* allow for frequent and open communication between partners on a broad range of issues, assist farmers to understand and contest decisions in a meaningful way, and contribute to “knowledgeability” or the company's understanding of the operating context of the farmers.

*Transparency of policies and decisions affecting farmers:* means that relevant information on policies, procedures, plans, and objectives is provided, and price and market information is shared. Transparency requires not only providing information, but also facilitating understanding of the information.

*Conflict resolution:* based on impartial mechanisms which farmers are able to access to voice complaints and suggestions, and which ensure that concerns are seriously considered and acted on.

*Informal long-term agreements:* to purchase crops or provide support on an ongoing basis, providing stability and security, and based on mutual understanding, rather than relying on formal contracting. While the management literature includes both formal and informal long-term agreements as attributes, the emphasis on informal agreements reflects the fact that most contracts in

smallholder agriculture are informal. Formal agreements such as contracts, where they exist, are often used more to enforce conditions on farmers, rather to protect farmer interests.

*Countervailing power by farmers:* achieved through arrangements that strengthen farmers' collective action (rather than impose farmer organization from the top down) and foster interdependence between farmers and other value chain actors. However, there is not an expectation that power be equally shared.

#### 4. Methodology

##### (a) Case selection

The empirical evidence in this paper comes from in-depth case studies of agricultural value chain PPPs in four countries: Ghana, Indonesia, Rwanda, and Uganda. The four cases were selected from a portfolio of 23 IFAD-supported PPPs based in part on the core rationale behind the PPP—what was the change it was trying to incentivize? Four categories of rationale were identified: PPPs which are producer-oriented, improving the flow of finance, inputs and/or technical knowledge toward farmer upgrading within value chains; those that target financial sector development to bolster on-lending to the food sector; those that target other markets actors that provide services to farmers such as traders, transporters, and input suppliers; and those that work with large processors or exporters to develop entire value chains from production to final markets. An additional consideration, in line with the original project aim of understanding enabling factors for effective PPPs, was the process IFAD used to identify the private sector partner(s). This consideration led to the category of producer-oriented PPPs being sub-divided into (a) those that were designed explicitly as PPPs involving an active search for private sector partners through a structured process; and (b) those which did not have an explicit process to identify the private sector partner but rather reacted to project needs or opportunities (e.g., where a PPP was not envisaged at program design but emerged in the face of constraints which a private company had expertise to resolve). Table 2 presents the initial spread of IFAD-supported PPPs based on these categories.

While the initial intention was to select one case from each category, practical constraints relating primarily to access to the PPPs on the ground led to a focus on the value chain development and producer-oriented PPP categories, from which the final cases were

<sup>2</sup> The five principles most often quoted are impartiality, refutability, explanation, knowledgeability, and courtesy. In this paper, courtesy is not included in the analytical framework, as the research focused on inter-organizational arrangements, rather than the inter-personal relationships implied by the concept of courtesy.

**Table 2**  
PPP mapping and case selection

Focus	Finance sector	Value chain development	Producer-oriented		Other market actors
Process	Structured	Structured	Structured	Unstructured	Structured
IFAD PPPs	Armenia Moldova Soloman Islands	Burkina Faso and Mali Liberia Rwanda Sao Tome and Principe Swaziland Uganda Rwanda Uganda	Egypt Ghana Malawi Papua New Guinea	Brazil India Indonesia Nicaragua Paraguay Sri Lanka Indonesia	Bangladesh Madagascar Morocco Mozambique
PPP selected	–		Ghana		–

purposely selected. Uganda and Rwanda were selected as two cases with very similar design and purpose; both involving investment in new plantation production and processing facilities through the PPP, with farmers holding a share in the factory. Ghana and Indonesia represent sub-categories of PPPs designed to support smallholders (structured and unstructured). The final choices of these cases within each category were influenced by their learning potential (e.g., those with specific innovations) as well as practical issues such as IFAD country office support.

#### (b) Data sources and analysis

In each country, local research teams collected data on the PPP arrangements and outcomes through semi-structured interviews, field visits, focus group discussions (FGDs), and a review of IFAD monitoring and evaluation reports and other secondary sources. Primary data collection took place over a period of 3 months and information was triangulated to build a detailed picture of the PPP and its outcomes to date. Detailed write ups for the four country case studies<sup>3</sup> allowed the key features of the PPPs to be understood and validated, and findings were compared across the cases. During this analysis an unexpected observation came to light: that in the PPP which was showing the most promising results in terms of crop yield and income gains (Uganda), farmers expressed a surprisingly high degree of dissatisfaction. This observation led to a re-analysis of the case studies to consider farmer satisfaction, as expressed in the focus group discussions, among the observed outcomes (Table 4), and to explore the presence or absence of the attributes of procedural justice as identified in the analytical framework.

#### (c) Limitations

The original data collection did not include questions specifically directed at understanding farmer satisfaction, since this issue only emerged after the fieldwork was complete. Instead relevant comments were extracted from the focus group discussions and as a result, this information may be partial (e.g., it does not capture aspects of satisfaction or dissatisfaction that were not spontaneously offered), or overly negative (as farmers were specifically asked about the challenges they face). Another limitation is the relatively short time horizon over which the PPPs had been operational at the time of the field work (Table 3), particularly considering that three of the four cases involved tree or bush crops that take some time to mature, and two involved loans that were still outstanding. The outcomes of the PPPs in terms of both farmer satisfaction and economic indicators may have been unduly affected, positively or negatively, by short-term events. Finally, the case study approach was intended to generate comprehensive information on individual PPPs, how they worked and the implications for farmers. Further work based on larger samples, with more

focused analysis of farmer satisfaction and procedural justice, would allow further testing and validation of the findings.

## 5. Results

### (a) Case study overview

The PPPs in Ghana, Indonesia, Rwanda, and Uganda aimed to either improve the flow of finance, inputs and/or technical knowledge to support farmer upgrading within value chains (Ghana and Indonesia), or to develop specific value chains from production to final markets, including catalyzing investment in agro-processing (Rwanda and Uganda). In all cases, IFAD provided loans to enable government activities within the PPPs, and often acted as a broker. It facilitated contacts between public and private partners, provided technical assistance and feasibility assessments, along with monitoring and evaluation. While the PPPs vary in structure and objectives, each fulfills the definition used in this study. Each involves arrangements between one or more companies and the government (generally the Ministry of Agriculture), with investments and activities coordinated toward a shared goal, from which both the company and the public sector were intended to benefit. IFAD also ensured that each PPP targeted marginalized smallholder farmers among the beneficiaries. An overview of each case follows, which is summarized in Table 3.

*Ghana:*<sup>4</sup> The Northern Rural Growth Programme (NRGP) involves a series of PPPs in the northern region of the country. The research focused on the maize PPP, which is both a staple and a cash crop. Farmers sell maize to local aggregators including the Savanna Farmers Marketing Company (SFMC), a partner in the PPP, which sells the maize onto end users including Nestle Ghana (also a partner), which produces weaning products for the domestic market, and Akate Farms, which produces animal feed also for the domestic market. The PPP facilitates District Value Chain Committees (DVCCs), which bring together POs, input and service providers, aggregators such as SFMC, and rural banks. Through the DVCCs, a cashless credit system allows smallholder to receive inputs or services. The providers of these inputs and services are paid directly by rural banks at a price agreed through the DVCCs, with loans repaid to the banks when the farmers sell their produce. These arrangements enable farmers to invest in improved productivity and quality of maize, through market coordination and improved access to inputs and services. The key actors are the farmers and SFMC, both engaged with the DVCCs; Nestle which provides instructional materials for training on farm practices in line with the company's standards, and the government. POs include a mix of existing and well-performing organizations and less advanced formal and informal groups in poorer areas. The government facilitates the development of the DVCCs and the cashless credit system, and supports the formation or strengthening of POs through a local NGO, ACDEP.

<sup>3</sup> Summaries available at: <http://www.ids.ac.uk/publication/brokering-development-enabling-factors-for-public-private-producer-partnerships-in-agricultural-value-chains> (last accessed December 30, 2016).

<sup>4</sup> Sarpong and Anim-Somuah (2015). Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains. Summary of Ghana case study. Rome and Brighton: International Fund for Agricultural Development and Institute of Development Studies.

**Table 3**  
Case study overview

Country	Ghana	Indonesia	Rwanda	Uganda
IFAD program	2008–16	2008–14	Phase 1: 2005–11 Phase 2: 2011–present 9 years	Phase 1: 1997–2012 Phase 2: 2012–18 9 years
Length of PPP implementation at time of research	5 years	3 years	9 years	9 years
Location	Northern Ghana	Central Sulawesi	Southern province (Nshili)	Kalangala District, Bugala Island
Commodity	Maize	Cocoa	Tea	Oil palm
Market	Domestic	Cocoa Export	Export	Domestic
Private sector	SFMC (local) Nestle Ghana Ltd (subsidiary of Swiss MNC)	Mars Symbioscience Inc. (subsidiary of American MNC)	Nshili Kivu Tea Plantation Company (local private consortium)	BIDCO Uganda Ltd. (international consortium led by Kenyan MNC)
Public sector	Ministry of Food & Agriculture; Department of Cooperatives	Ministry of Agriculture	National Agriculture Export Board (NAEB)	Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)
Farmers	POs largely formed by government	Cocoa POs formed by government	Tea cooperatives formed by government	KOPGT formed by government; KOPGA formed by farmers

*Indonesia:*<sup>5</sup> The PPP in Indonesia evolved from the government's Rural Empowerment and Agricultural Development (READ) program. Cocoa is Indonesia's fourth largest foreign exchange earner from agriculture, mostly produced on the island of Sulawesi. Small-holder farmers produce cocoa beans which they sell to collectors at village or sub-district level, who sell them onto exporters or large-scale international companies with domestic processing plants,<sup>6</sup> including Mars (a partner in the PPP). At the time of the PPP, cocoa prices were high but production had been declining, due to aging plants, pests and diseases, insufficient improved planting material, and poor farm management practices. Neither the READ program nor the government's Extension Agency had sufficient expertise to resolve these challenges. The PPP with Mars Symbioscience Inc. aimed to establish five "Cocoa Development Centers" (CDCs) to disseminate learning on improved farm management techniques. Mars provides a package of technology, trains lead farmers and extension workers, and provides technical assistance; the Ministry of Agriculture develops and manages the CDCs and supports associated "Village Cocoa Centers" (VCCs), provides extension workers, and organizes farmers into groups, building their capacity and providing a revolving loan fund. Villages were targeted that had high levels of poverty but the potential for increased productivity, and where farmers expressed a need for and were willing to work together in a participatory way. Farmer groups received assistance from an NGO on group management, communication, and accounting, and operate the VCCs, where the trained farmers and extension agents apply their skill and other farmers can learn.

*Rwanda:*<sup>7</sup> The PPP in Rwanda involves a tea estate in Nshili in the southern province of the country, and was implemented as part of the government's privatization of the tea sector. Until 2004, the government owned and managed nine out of ten tea factories in Rwanda; however privatization has led to a new sector structure with the private sector dominating the ownership of tea estates and up to 85% of shares in tea factories across the country. In the PPP in Nshili, green tea leaves are produced by individual small-holder tea growers, by a cooperative and on an industrial estate owned by the factory. The factory processes the green leaves which are then transported to market, mostly to the auctions in Mombasa. Over 97% of local tea production is exported. A private consortium of local companies has invested in a tea factory and leases land from the government for the plantation, bringing also technical and managerial skills, and the logistics capability to connect to input and output markets. The government provided land, infrastructure improvements (roads and electricity), and formed and trained the tea cooperative, securing farmers a 15% shareholding in the tea factory. Farmers invest in tea and provide green leaves to the factory from both individual and cooperative plots. The cooperative represents the farmers as shareholders on the factory board.

*Uganda:*<sup>8</sup> The PPP, a component of Uganda's Vegetable Oil Development Project (VODP), established oil palm production as a new

<sup>5</sup> Natawidjaja (2015) *Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains*. Summary of Indonesian case study. Rome and Brighton: International Fund for Agricultural Development and Institute of Development Studies.

<sup>6</sup> Domestic processing of cocoa has been encouraged by a government policy change in 2010, which raised taxes on the export of raw cocoa beans.

<sup>7</sup> Byakweli and Nzeyimana (2015). *Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains*. Summary of Rwanda case study. Rome and Brighton: International Fund for Agricultural Development and Institute of Development Studies. This original research considered two sites: Nshili and a second site located at Mushubi. PPP implementation in the two sites were very similar in processes and outcomes, and so to keep the discussion focused, the results presented in this paper represent the findings from Nshili.

<sup>8</sup> Nsamba-Gaiyiya and Kamusiime (2015) *Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains*. Summary of Uganda case study. Rome and Brighton: International Fund for Agricultural Development and Institute of Development Studies.

**Table 4**  
Summary of PPP outcomes

	Chana	Indonesia	Rwanda	Uganda
Crop yield	Maize yield increased from 0.76–1.55 MT/ha in 2006/07 to 1.5–3.2 MT/ha	Cocoa yield increased from 50 kg/tree/month in 2010 to 100–200 kg/tree/month by 2014 in areas where the CDC model is functioning well. In communities outside PPP, yield continues at around 50–60 kg/tree/month	Cooperative tea yield is 3.5 T/ha and individual farmer yield is 0.7 T/ha, compared to 0.1 T/ha/yr in 2011. These are below potential of 6–7 T/ha/yr	Oil palm trees mature after five years. Oil palm yields in the 6 <sup>th</sup> year reached up to 15 T/ha/yr. Yields at this level were expected to only be achieved after nine years
Quality	Improve produce quality reported in Upper East and Upper West Regions	Average weight of cocoa beans increased by 10–15%	The proportion of tender green leaves supplied by cooperatives rose from 56% to 58%, although short of the 65% targeted to capture higher price margins	<i>No baseline as oil palm is new to area</i> <i>No baseline as oil palm is new to area</i>
Crop income	Farmers in the Upper East and Upper West Regions reported household income increases; however in the northern region, farmers said that income gains were offset by higher production costs	Average income improvement estimated at 10%, although farmers predict it will increase once rehabilitated plants are harvested	<i>Information not available</i>	Women in focus groups all report increased incomes as a result of PPP; while 86% of men reported increased incomes
Income stability	Incomes suffer from instability as output is weather-dependent and markets are not guaranteed, despite the PPP	No	No—vary with tea prices, weather, loan repayment	Yes—especially in early stages of the PPP, households receive regular payments (loans) for preparing and maintaining gardens. Once harvesting starts, income is more variable, but weather risk is mitigated by loan repayments tied to level of harvest
Farmer satisfaction—illustrative comments	“If a different buyer comes in with a different crop we will not stop producing ... for SFMC but instead produce the crop they ask for in addition to the production for SFMC” “If there was a reduction in the price of fertilizers it would help. A bag of maize cannot pay for a bag of fertilizer”	Farmers expressed that the PPP program to improve production is what they need most. However, they commented that the cost and availability of entries were an impediment to the side grafting	“... when I planted tea and followed the training, I saw it was positive. Tea is not the same as other crops. ... Tea is positive for business” “The price for green leaves is low”	“Field workers do not come to see us and tell us what should be done to improve our farming. They should co-operate with us by visiting our farms and explain to us the real reasons why some things are happening” “We do not have a good relationship with BIDCO, it is a monopoly who oppresses us”

cash crop in the country. The local edible oils sub-sector had been declining since the mid-1990s while domestic demand was rising. Uganda was importing 60–70% of its edible oil and soap needs, with increasing foreign exchange costs. VODP aimed to increase national production of sunflower oil in the north and east (not part of the PPP) and establish new oil palm cultivation in Kalangala District on Bugala Island in Lake Victoria. A private investor, BIDCO Uganda Ltd. (BUL), a consortium of international companies led by Bidco Oil Refineries Ltd of Kenya, was identified through a competitive bidding process to develop a 6,500 ha nucleus estate, a crude palm oil processing facility in Kalangala<sup>9</sup> and an edible oil-refining complex at Jinja near Kampala. The government made land available to the company, as well as providing tax incentives and road and ferry infrastructure. The PPP also made provision for the development of 3,500 ha smallholder plantations supported by technical know-how and access to inputs provided by the company. The government created the Kalangala Oil Palm Growers Trust (KOPGT) for the farmers, which had a 10% shareholding in the crude palm oil mill. The government provides farmers with loans through KOPGT and has helped them formalize land tenure, since many farmers had been tenants or squatters on land which was owned by absentee landlords. The farmers invest in new oil palm trees, producing fresh fruit bunches to feed the mill. They have set up their own growers' organization, the Kalangala Oil Palm Growers Association (KOPGA), as a platform to better represent their interests within KOPGT.

#### (b) Outcomes of the PPPs

The study found that the PPPs raised farmer yields and crop quality, and improved farmer incomes, although income stability was frequently affected by weather and price movements (Table 4). However, poor implementation of farm practices (e.g., low fertilizer use in Uganda or poor tea bush care in Rwanda) and farmers or buyers trading outside agreed channels (Ghana) have negatively affected value chain performance. Through the focus group discussions, farmers in Rwanda, Ghana, and Indonesia expressed general satisfaction with the PPP arrangements, although complained about financial aspects (high costs for input and low prices for products). Surprisingly, farmers in Uganda, where outcomes were most positive in terms of yields and incomes, expressed a high degree of dissatisfaction with the arrangements.

#### (c) Attributes of procedural justice identified across the four case studies

This section sets out the case study results in terms of the attributes of procedural justice identified, with the results summarized in Table 5 at the end of the section.

##### (i) Bilateral communication channels

Farmers in Rwanda engage in direct bilateral communication with the processing factory, with monthly meetings to discuss productivity, fertilizer, prices, transport, and tea crop management. Where issues are raised and agreements identified, feedback is discussed in future meetings. Although the cooperative represents the farmers at factory board meetings, cooperative leaders complain of a lack of voice in strategic decisions, such as setting targets or negotiations with tea brokers. In Ghana, bilateral communications are also frequent, operationalized through the DVCCs which meet regularly and provide a forum for farmers to engage with input and service providers, rural banks and SFMC on issues of prices,

crop budgets, and loan applications. In Uganda, on the other hand, there is essentially no direct communication between the factory and the farmers. All exchanges take place through the intermediation of KOPGT. However, although KOPGT was intended to represent the farmers, its lines of accountability are blurred as its board members are farmers but also other stakeholders such as the government, further diluting communication. In Indonesia, there is very limited bilateral communication. That which does exist is focused on technical exchanges between the Mars trainers at the CDCs and lead farmers.

##### (ii) Transparency of policies and decisions affecting farmers

Transparency is strongest in Ghana. Through the DVCC, farmers have information on prices and on decisions such as crop budgets, loan applications, and the selection of input and service providers. Transparency is further enabled by ACDEP, which supports the farmers with simplified agreements (draft purchase contracts) which can be understood by all value chain actors. ACDEP also helps farmers understand market information and the terms of these agreements. The PPP in Uganda has introduced a number of novel measures to support transparency. Farmers are represented on committees that oversee input costs and the pricing of fresh fruit bunches (FFBs), and pricing decisions for the FFBs are transparent since farm gate prices are linked to the world market price through a predetermined pricing formula. However, farmers say they do not understand the pricing formula or the subsequent deductions for loan repayments. Farmers perceive the quality assessments of FFBs as arbitrary and lacking transparency. In Rwanda, farmers also complain of weak transparency related to the reception and weighing of green leaves and to market information. In Indonesia, few transparency issues were raised by farmers, although a few complained of a lack of transparency related to training decisions (e.g., who could attend).

##### (iii) Conflict resolution

In Ghana and Rwanda, there are informal but frequent and relatively effective spaces for conflict resolution. In Ghana, conflicts between farmers and buyers have arisen from price disparities between what aggregators have agreed to pay and prices offered by itinerant traders at local markets. Local arbitration of such conflicts take place within the DVCCs, with NRGF or ACDEP often acting as "honest brokers" to facilitate agreements. In Rwanda, the regular meetings between the farmers and factory also provide a space within which to raise and resolve concerns. The arrangements in Uganda are more ad hoc and do not provide a regular space for farmers to raise grievances. Instead, through IFAD's regular monitoring and supervision missions farmers have managed to raise concerns with IFAD or consultants contracted by them. In Indonesia, no conflict resolution mechanisms were identified, nor serious grievances raised.

##### (iv) Informal long-term agreements

In all the PPPs except Indonesia (where there are no marketing arrangements and exchange takes place via local traders), arrangements at least partially meet this criterion. In Rwanda, company investment in the local processing factory offers a long-term secure market for farmers, as alternative sources of green leaves are not readily available in sufficient quantities. In Uganda, the local processing mill and lack of alternative supply of oil palm fruits similarly offers a long-term secure market. However, the formal nature of the individual loan contracts between KOPGT and farmers, which are enforced to ensure loan repayment, is likely to undermine farmers' perceptions of procedural justice in this chain. In Ghana, there are no long-term agreements. Farmers are free to negotiate prices and markets each year, or to change from maize to another crop. Such arrangements fail to offer much security.

<sup>9</sup> A further 20,000 ha of nucleus estates, accompanied by further smallholder plantations, were planned at other locations in Uganda, together with additional crude oil palm mills, although at the time of the research these had not yet been realized.



**Table 5**  
Attributes of procedural justice identified in the four PPPs

	Ghana	Indonesia	Rwanda	Uganda
Bilateral communication channels	<ul style="list-style-type: none"> <li>– Farmers directly engaged in discussing key issues (crop budgets, loans, prices) within District Value Chain Committee (DVCC)</li> <li>– DVCCs meet regularly</li> <li>– Linkages to buyer only indirectly through DVCC</li> </ul>	<b>None identified</b>	<ul style="list-style-type: none"> <li>– Direct communication with company on key issues (productivity, prices, transport, crop management)</li> <li>– Monthly meetings between cooperative and factory</li> <li>– Cooperatives perceive they are excluded from broader issues (target setting, negotiations with tea brokers)</li> </ul>	<ul style="list-style-type: none"> <li>– No direct communication</li> <li>– All interaction mediated through third parties such as farmers' trust (KOPGT) or IFAD</li> <li>– No joint meetings</li> </ul>
Transparency of policies and decisions affecting farmers	<ul style="list-style-type: none"> <li>– DVCC provides transparency and collective negotiation related to crop budgets and prices, and loan applications</li> <li>– Farmers are given market information, simplified agreements, and other support to understand the terms of the agreements</li> </ul>	<ul style="list-style-type: none"> <li>– Transparency on decisions regarding who attends training</li> <li>– A lack of transparency on other training decisions (e.g., number of spaces on training program)</li> </ul>	<ul style="list-style-type: none"> <li>– Government pricing mechanism means price transparency</li> <li>– Lack of transparency on green leaves reception and weighing</li> <li>– Cooperative represented on factory board and at board meetings; however information sharing (e.g., tea processing, marketing) is limited</li> </ul>	<ul style="list-style-type: none"> <li>– Farmers receive substantial information on loans, market, prices via KOPGT role in committees that oversee pricing and costs</li> <li>– Farmers say they do not understand pricing formula and changes have not been justified</li> <li>– Quality assessments (grading) are not transparent and seen as arbitrary</li> <li>– Limited and ad hoc—through KOPGT, IFAD or consultant</li> </ul>
Conflict resolution	<ul style="list-style-type: none"> <li>– DVCC acts as a space for local arbitration of conflicts</li> <li>– Farmers supported in these processes by local NGO</li> </ul>	<b>None identified</b>	<ul style="list-style-type: none"> <li>– Monthly meetings provide space to discuss concerns</li> <li>– Agreements monitored and discussed in subsequent meetings</li> </ul>	<ul style="list-style-type: none"> <li>– Company investment in processing mill represents long-term secure market</li> </ul>
Informal long-term agreements	<ul style="list-style-type: none"> <li>– Informal agreements rather than formal contracts</li> <li>– Arrangements are only short term</li> </ul>	<b>None identified</b>	<ul style="list-style-type: none"> <li>– Company investment in factory represents long-term secure market</li> </ul>	<ul style="list-style-type: none"> <li>– Farmers say they do not understand loan deductions</li> <li>– Formal contract between farmers and KOPGT used to enforce terms on farmers</li> </ul>
Countervailing power by farmers	<ul style="list-style-type: none"> <li>– Farmers represented by POs; some existed before PPP and some created by government for PPP</li> <li>– POs relatively weak but receive support from ACDEP</li> <li>– Farmers diversified and have access to multiple buyers</li> <li>– 100% of productive land owned by farmers (no company plantation)</li> </ul>	<ul style="list-style-type: none"> <li>– Farmers represented by POs set up by government; and receive support from NGO (e.g., on financial management)</li> <li>– Farmers specialized but have access to multiple buyers</li> <li>– 100% of productive land owned by farmers (no company plantation)</li> </ul>	<ul style="list-style-type: none"> <li>– Farmers represented by cooperative under supervision of government</li> <li>– Support provided to train and empower cooperative, but they are not autonomous</li> <li>– Cooperative is heavily indebted, having borrowed RWF 230,000,000 (USD\$230,000)</li> <li>– Farmers specialized and largely dependent on single buyer (though other more distant buyers exist)</li> <li>– 51% of productive land owned by farmers (49% by company)</li> <li>– Farmers have 15% share in factory</li> </ul>	<ul style="list-style-type: none"> <li>– Farmers represented by trust (KOPGT) set up by the government, which also implements PPP, administers loans</li> <li>– KOPGT not seen to represent farmers' interests</li> <li>– Farmers create KOPGA, although it does not receive PPP support</li> <li>– Farmers specialized and depend on single buyer</li> <li>– 38% of productive land owned by farmers (62% by company)</li> <li>– KOPGT has 10% share in factory</li> </ul>

On the other hand, farmers are not constrained by conditions dictated by other value chain actors.

#### (v) *Countervailing power by farmers*

In Rwanda, farmers are specialized and largely dependent on the processing factory as the single local buyer of green leaves, although other (much more distant) buyers do exist. However, farmer control of half of the land used for tea production establishes interdependence between farmers and company, since the factory needs to secure supplies from the farmers in order to be profitable. Initially, the government had envisaged an even higher share (70%) of the land would be held by the farmers. In Uganda, the farmers are similarly specialized and dependent, but unlike Rwanda, the factory can operate independently of smallholder production. The company controls 62% of production capacity through its plantation, providing sufficient raw material for the factory to break even without the farmers. In Ghana, interdependence between farmers and company is relatively low. Both farmers and SFMC trade outside the PPP arrangements, and switch between maize and other crops between years.

In all of the PPPs, producer organizations are a vital part of the arrangements; mostly created by governments to facilitate farmer access to inputs, finance, extension services, and markets. In Ghana, Indonesia, and Rwanda, POs receive some capacity building support from the government, such as on financial management and local decision-making. However, only in Ghana is the importance of POs in advancing farmer interests and challenging unfavorable decisions reflected in PPP arrangements, with ACDEP assisting farmers in these dealings. In Rwanda the cooperative is supervised by the semi-governmental Rwanda Cooperative Agency (RCA), and its autonomy is further threatened by its high indebtedness to the Rwandan Development Bank. In Uganda, KOPGT cannot be said to primarily advance the farmers' interests, since it is accountable not only to the farmers but also to other actors, particularly the government. While the farmers have set up KOPGA in order to better defend their interests, this association has not received support through the PPP.

## 6. Discussion

The findings from the four cases, both those which focused on value chain development and those which were producer-oriented, are that PPPs do enable inclusion and smallholder farmer upgrading. However, these outcomes alone are insufficient to judge that a PPP is effective in terms of making value chains work for smallholder farmers. The specific value chain arrangements catalyzed by PPPs also matter for how farmers experience the value chain, and their commitment to and agency within it. Public sector actors, through PPPs, are able to shape governance within value chains, considering the skills, knowledge, and resources which different actors possess, the way that farmers are organized to engage in the value chain, and the attributes of procedural justice supported by PPP arrangements.

#### (a) *PPPs and value chain governance*

In the cases that focused on value chain development (Rwanda and Uganda), farmers were required to develop specific assets and meet company specifications in a context where farmer capabilities were low. Based on value chain governance theory, one would expect these circumstances to lead to a captive value chain characterized by relationships of dependency (Gereffi *et al.*, 2005; Okello *et al.*, 2011). The features of the value chain in Uganda suggest that it is, in fact, a captive chain. Farmers have taken on substantial loans to invest in a new crop for which there is only one available

buyer, and are expressing dissatisfaction with the arrangements despite positive outcomes achieved. In Rwanda, the cooperative is also in a dependent position, as alternative buyers are located at a great distance and the cooperative has a substantial debt burden. However, the value chain in Rwanda is characterized by more relational arrangements. There is greater interdependence between the company and farmers, and regular face-to-face interaction. These differences can be attributed to the role of the government and the arrangements generated by the PPP. The government was particularly instrumental in ensuring that farmers had at least half of the total production area, promoting interdependence, and that the PPP design supported bilateral communication through the cooperative. In contrast, the PPP in Uganda was designed such that KOPGT became an intermediary between the farmers and the company, rather than representing the farmers in negotiations with the company.

In Ghana, the PPP strengthens pre-existing value chains in which farmers have been producing crops with little input from buyers and little explicit coordination, in what most closely resemble market governance arrangements. The PPP has, however, strengthened coordination and embedded attributes of procedural justice (communication, transparency and conflict resolution) within existing trade structures through the institution of the DVCC, with farmers expressing satisfaction with the arrangements and resulting access to services and inputs. The DVCC was an integral part of the PPP design, and the government has been instrumental in making it work better for the farmers by bringing in ACDEP to support farmers in negotiation and conflict resolution, and provide market information and simplified agreements. Across these 3 cases, therefore, we observe that PPPs shape (though do not determine) agricultural value chain governance, and the farmers' experience of these value chains.

The case in Indonesia presents an interesting contrast. Here the PPP leaves the marketing arrangements unchanged, and most of the attributes of procedural justice are absent. Yet this lack of procedural justice did not produce the expressions of dissatisfaction which emerged in Uganda. There could be a number of reasons for this finding. Firstly, the PPP seems to offer a direct solution to the clear problem of declining productivity, giving farmers a sense of optimism, which may also have been buoyed by high prices for cocoa at the time of the fieldwork. This finding confirms that despite the importance of procedural justice, distributive justice (the outcomes) still matters. It may also suggest that procedural justice matters more in uncertain circumstances, such as when new commercial arrangements are involved (new market channels, new loans), than where uncertainty is lower, such as in the context of long-established arrangements. This interpretation would be consistent with studies that propose that procedural justice is more important in more volatile contexts or when the rewards of engaging in collaboration will only come in future (Hornibrook *et al.*, 2009; Kumar *et al.*, 1995; Nor *et al.*, 2011). Alternatively, a positive relationship between the local traders (not part of the PPP and therefore not assessed in the original case research) and farmers may influence the perception of procedural justice in ways that were not captured by the research. Neilson (2008), in his study of the coffee sector in Indonesia, notes that farmers benefit from traditional market mechanisms through local traders who offer hassle-free access to credit and simple marketing procedures embedded within traditional market cycles. He suggests that externally driven models that change these local chain structures without considering such functions risk negative unintended consequences.

#### (b) *PPPs and producer organizations*

The question of local versus imposed institutions raises also the issue of producer organizations, their role within value chains, and

how these institutions are shaped by the government through PPPs. Effective POs enable farmer inclusion through collective marketing and purchasing and the reduction of transaction costs, but also exert political and social functions. Governments often play a direct role in organizing farmers to engage in value chains, but POs so created may remain dependent on external organization, with agendas that do not align with farmer priorities and failing to bolster collective agency (Bitzer *et al.*, 2013; Neilson, 2008).

In all four cases studied, the government was indeed instrumental in organizing farmers to facilitate their inclusion and upgrading within value chains. In most cases, POs were given capacity building support by some combination of the government, local NGOs and IFAD, enabling them to engage in the value chain more effectively. However, only in Ghana can a case be made that the POs were also explicitly strengthened in ways that advance procedural justice and empower them to advocate for farmer interests. In the short term, there may be little obvious interest or incentive for either public or private partner in the PPP to encourage the more political functions of POs, especially where partners perceive tight control over the countryside or the value chain to be in their respective interests. However, in the longer term, strong and empowered POs are arguably important if PPPs are to fully satisfy the interests of all actors: to deliver value and quality to buyers, to advance rural development, and to respond to farmer aspirations. Empowered POs built from the bottom up which give farmers a role in designing PPP structures and direct control over value chain activities can build commitment and farmers' ownership, compared with initiatives that involve farmers as passive actors. However, this approach implies a substantial investment of time to develop viable organizations owned by farmers, posing a dilemma for PPP development.

A separate challenge arises where POs are farmer led, and this is the potential for exclusion of more economically or socially marginalized groups from these organizations. POs may effectively represent the general interests of farmers, without representing all farmers. For example, most women in the focus group discussions in Ghana said they were not members of their local PO, and were not involved in PO activities. In Uganda, some concerns have been expressed that KOPGA, the organization set up by the farmers to advance their interests, is dominated by larger farmers with little voice for poorer farmers. The role of PPPs in addressing inclusion of more marginalized groups is an area for further research.

(c) PPPs and procedural justice

The analytical framework identifies attributes of procedural justice relevant for agricultural value chains based on principles identified in the management literature (Brown, Cobb, & Lusch, 2006; Kröger & Schäfer, 2014; Kumar *et al.*, 1995; Leventhal, 1980; Yilmaz *et al.*, 2004); further supplemented to reflect issues of power and dependency highlighted in the context of agricultural value chains (Bloom & Hinrichs, 2010; Schulze *et al.*, 2007; Stevenson & Pirog, 2008). Through the application of this analytical framework to the case studies, we can assess and discuss the attributes of procedural justice within each case. In addition, by comparing the attributes across the cases, it is possible to develop a descriptive scale (strong-moderate-weak) and indicators which would assist in the identification and analysis of procedural justice in future value chain research. This framework is presented in Table 6. Alongside its value for research, this table could be used to help policy-makers and practitioners to inform and improve the design of agricultural value chains and PPPs which support farmer commitment and empowerment.

**Table 6**  
A framework for assessing procedural justice in value chain arrangements

Attributes of procedural justice	Indicators		
	Weak (low) presence	Moderate presence	Strong (high) presence
Bilateral communication channels (farmer-company)	Communication infrequent, on limited issues and/or indirect, or non-existent	Regular opportunities to exchange views and voice objections on key issues; though communication with buyer may be indirect	Regular, direct, formal and informal opportunities to exchange views and voice objections on a broad range of issues
Transparency of policies and decisions affecting farmers	Policies, procedures, and decisions not known or understood by farmers; or transparency on a very limited range of issues	Partial transparency in policies, procedures, decisions, price and costs; however may not be fully understood by farmers	Policies, procedures, price, quality, and cost decisions fully transparent and support provided where needed to ensure understanding; collective negotiation mechanisms
Conflict resolution mechanisms	No conflict resolution mechanisms available or only ad hoc	Regular space or mechanism available for arbitration of conflicts	Impartial conflict resolution mechanism is available and known; complaints are acted on
Informal long-term agreements	No ongoing commitment between company and farmers, or emphasis on formal agreement which is used primarily to enforce conditions on farmers; decision-making perceived as arbitrary	Informal commitment to purchase crop and/or provide support on an ongoing basis; some decision-making perceived as inconsistent or arbitrary	Informal commitment to purchase crop and/or provide support on a long-term basis, e.g., backed up by investment in processing factory; along with consistent decision-making
Countervailing power by farmers	Farmer organization is weak; farmers are specialized and dependent on company for market and inputs; farmers' share of productive or processing assets is insufficient to create mutuality	Farmer organizations are weak but being strengthened; farmers produce diverse crops or have alternative buyers for single crop; farmers' share of productive or processing assets is insufficient to create mutuality	Farmer organizations are represented by a strong organization; farmers produce diverse crops or have alternative buyers for a single crop; farmers' share of assets creates mutuality between farmers and buyers

Source: Author's own.

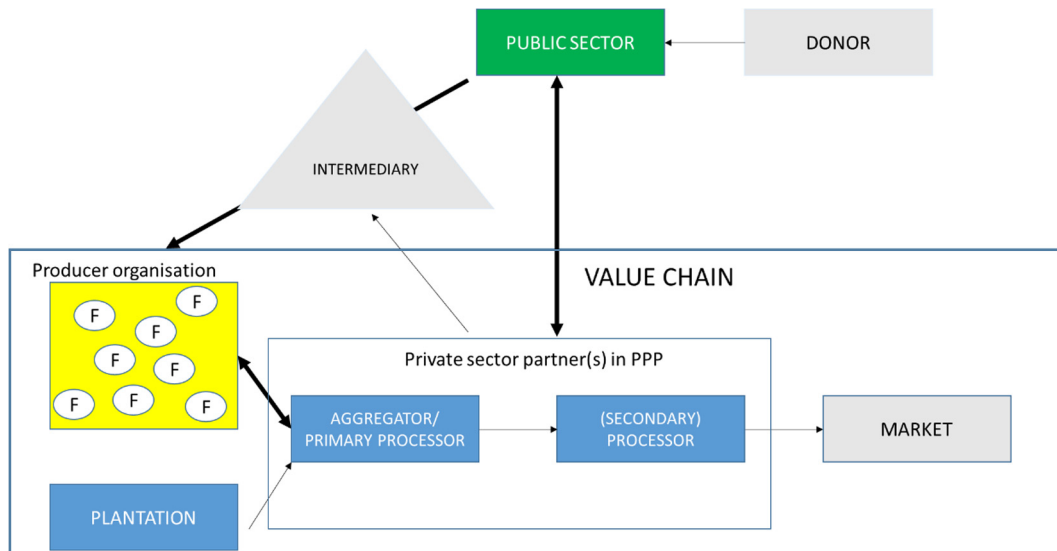


Figure 1. Model of PPP relationships in agricultural value chains.

#### (d) Policy implications for PPP design

Other papers have usefully explored the factors that enable effective relationships between the government and investors in PPPs (Bouman, Frierson, Gielen, & Wilms, 2013; Brinkerhoff, 2002; Poulton & Macartney, 2012; Thorpe & Maestre, 2015). The analysis in this paper draws attention to the role of *farmers as core partners in the PPP*. Figure 1 presents this relationship schematically. It shows a three-way PPP between the farmers, the government and the company(s) based on “different but complementary resources and competencies” and “jointly . . . executed activities”, as per the partnership definition set out earlier. In addition, a three-way PPP would also imply “shared goals” and “jointly planned . . . activities”, which were largely absent in the cases studied. POs were mostly only created after the PPP was set up and had no voice in PPP negotiation and design, raising doubts as to whether the arrangements adequately reflected farmer priorities and interests. Involving farmers as partners in PPP negotiation and design does not imply ignoring power relations and inequalities (Gregoratti, 2011). Rather it is likely to mean partnering with well-functioning POs or investing much earlier in the development and strengthening of farmer groups to be ready to engage in PPP development. It also means ensuring that POs speak for farmers’ interests. The PPP in Uganda was innovative in having a tripartite agreement between the company, the government and KOPGT at its heart, matching the arrangements described in Figure 1. However, what was missing was an organization which was more truly representative of the farmers and involved much earlier in the PPP development process.

The second message for policy-makers designing agricultural value chain PPPs concerns the role of the government. Government involvement in value chains should be premised on facilitating relationships that are more procedurally just than those which would be expected to arise through the market alone. If these conditions cannot be created, then serious questions must be raised about both the *rationale for* and the *viability of* the value chains being catalyzed and whether alternative arrangements would better suit local conditions. Alternatives might include focusing on crops or on market arrangements with less complex or stringent requirements, reducing the likelihood of dependency, but still creating space for communication and engagement. Another

alternative would be to focus only on more organized smallholders, who have sufficient assets, access to inputs, and technical skills to enter more demanding relational arrangements. From the perspective of development cooperation and inclusive growth, working with already better off farmers may seem undesirable, even if these farmers are still relatively poor. However, the arrangements may be desirable for other reasons, such as addressing food security or for import substitution, and the resulting value chain is more likely to be viable, with farmers less vulnerable to exploitation. This approach, of course, raises the question of how best to secure sustainable livelihoods for more marginalized farmers.

#### (i) Future research

This paper responds to an unexpected observation from the original case research: farmers in the PPP with the strongest outcomes expressed dissatisfaction with the arrangements, while farmers experiencing much more modest gains were more positive, prompting a re-examination of the data. An obvious next step would be to explore in more depth attributes of procedural justice in agricultural value chains, how they influence farmer perceptions of and commitment to value chain arrangements, in different types of value chains (pre-existing or newly created, or long versus short chains), and how these are shaped through PPPs. Table 6 offers a framework to support systematic analysis of this nature.

Research could also explore other aspects of the role of governments, through PPPs, in enabling farmer inclusion and upgrading. The data available in this research did not disaggregate farmers and outcomes by poverty level, but some anecdotal accounts suggested that poorer farmers on marginalized land were not benefiting from the opportunities created, and that producer organizations have been dominated by better-off farmers. Furthermore, the findings point to the importance of empowered and accountable producer organizations as a precondition for agricultural value chain PPPs that work for farmers. What are the potential and limitations for PPPs to support the inclusion of more marginalized farmers in value chains, through arrangements that introduce attributes of procedural justice? Another question would explore the potential for PPPs to go beyond process or product to achieve functional upgrading. The PPPs in Uganda and Rwanda gave farmer organizations a 10–15% share in the processing facility, although it was unclear to what degree holding a share in

the processing operations might constitute functional upgrading and with what outcomes for farmers. Is there potential for PPPs that enable farmers to enter into new, higher value-added levels in the value chain?

## 7. Conclusion

This paper addresses how the public sector through PPPs can make value chains work for smallholder farmers, by not only improving economic coordination between farmers and their buyers but also by fostering procedural justice in value chain arrangements. The insights call attention to the importance of farmer commitment to value chain arrangements, and how this is influenced not only by economic outcomes in terms of productivity, farmer incomes, and household gains, but also the fairness of value chain procedures. By engaging in a PPP, public actors have an instrumental role in the value chains arrangements and governance model that emerge.

These findings remind us that farmers have agency within value chains and their sense of the fairness of the arrangements matters. In procedurally just arrangements, farmers experience a consistent application of rules and procedures, with decisions and actions that are explained and understood, and an ability to voice objections and participate in decisions, while also wielding some power within the relationship. Where these principles are weak or absent, farmers can exercise their agency to exit the chain, or neglect procedures required for effective coordination. The result is chain underperformance and sub-optimal outcomes for all: for farmers, for lead firms, and for government agencies. Procedural justice also matters in and of itself. Questions are rightly raised where public money is used to create highly unequal and prejudicial relationships between farmers and companies, or to subsidize private investments that would have happened anyway, without improving the quality of these relationships and their outcomes for development.

## Funding sources

This work was supported by the International Fund for Agricultural Development [grant number 2000000153]. IFAD provided feedback on the study design and facilitated access to key informants and farmers for interview, based on criteria established by the author. The analysis and interpretation of the data, the writing of the article and the decision to submit the article for publication was the sole responsibility of the author.

## Acknowledgments

Detailed information on the case studies included in this analysis can be found in the publication, *Brokering Development: Enabling Factors for Public–Private–Producer Partnerships in Agricultural Value Chains* (Thorpe and Maestre, 2015), and the four country studies which accompany it, authored by Daniel Bruce Sarpong and Henry Anim-Somuah (Department of Agricultural Economics and Agribusiness of the University of Ghana); Ronnie S. Natawidjaja (Center for Agrifood Policy and Agribusiness Studies, Padjadjaran University); Jean-Marie Byakweli (Rwanda) and Eddie Nsamba-Gayiyi and Herbert Kamusiime (Associates Research, Uganda). I would like to gratefully acknowledge the generous feedback received from Hubert Schmitz, Lizbeth Navas-Aleman, Mar Maestre and Anuradha Joshi, as well as the anonymous reviewers, which has greatly improved the final result, as well as the support received from the International Fund for Agricultural Development (IFAD). The findings expressed are the author's alone and do not necessarily represent the views of IFAD.

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