World Development Vol. 40, No. 1, pp. 96–109, 2012

0305-750X/$ - see front matter

ELSEVIER
www.elsevier.com/locate/worlddev

doi:10.1016/j.worlddev.2011.05.017

Can Public–Private Partnerships Leverage Private Investment in Agricultural Value Chains in Africa? A Preliminary Review

COLIN POULTON
School of Oriental and African Studies (SOAS), UK

and

JON MACARTNEY *
Independent Consultant

Summary. — Public–private partnerships (PPPs) may be one way of increasing the level of private sector investment into poorly performing agricultural value chains. This paper considers a range of PPP mechanisms that respond to different market failures affecting such chains and draws on principal–agent theory to illustrate the challenges. It reviews emerging experience with a number of these mechanisms along with experience from other sectors that may shed light on "generic" problems of implementing PPPs in Africa. While finding some positive impacts on investment, it notes that state failures can also undermine PPP effectiveness. As the evidence base is still limited, it calls on organizations promoting innovative PPPs to disclose available information for critical examination.

Key words — market failure, state failure, public private partnerships (PPP), agriculture, Africa

1. INTRODUCTION

Many parts of African agriculture may be thought of as struggling between market and state failure. There has been some disappointment with the private sector response to agricultural market liberalization, which is perhaps best described as "uneven". Thus after a period when the major policy emphasis was on getting the state out of agricultural marketing activity in Africa, over the past decade or so there has been a search for a more active role for the state that goes beyond the creation of a basic enabling environment toward encouraging market development. Simultaneously, there is ongoing disappointment with the performance of public sector service delivery, including in—but not restricted to—the agricultural sector. This has prompted a search for ways to bring the private sector into provision of services that were traditionally considered to be the preserve of state agencies.

This paper reviews a variety of so-called public–private partnerships designed to leverage private investment both where existing participation in value chains is considered too limited and into the provision of services traditionally provided by the public sector. The scope of the term "public–private partnership" (PPP) is subject to considerable debate (Hodge & Greve, 2007). Hodge and Greve (2007) cite a definition from Van Ham and Koppenjan (2001, p. 598) of "cooperation of some sort of durability between public and private actors in which they jointly develop products and services and share risks, costs, and resources which are connected with these products". Narrod *et al.* (2009, p. 10) define a PPP as "a cooperative venture between the public and private sectors built on the expertise of each partner that best meets clearly defined goals through the appropriate allocation of resources, risks and rewards". According to the World Economic Forum definition, cited by Warner, Kahan, and Lehel (2008, p. 9), PPPs entail "reciprocal obligations and mutual accountability, voluntary or contractual relationships, the sharing of investment and reputational risks, and joint responsibility for design and execution". All these definitions emphasize new investment facilitated by a cooperative approach and risk sharing.

Through PPPs the state (or other "public" actor, such as a donor or nonprofit foundation) seeks to align the incentives facing private sector actors with public policy goals, for example the provision of public goods or of services to poor groups. In this paper we focus on cases where the mechanism formally used to seek this alignment is some type of contract.

In recent years there has been growing interest in possible PPP mechanisms to improve the performance of poorly functioning agricultural value chains in Africa and elsewhere. Thus, World Bank (2007) notes that PPPs "offer much potential" for stimulating innovation, highlighting biotechnology research and value chains for high value agricultural products as two areas of particular promise. Langyintuo *et al.* (2010) argue that seed systems in southern and eastern Africa would benefit from support from PPP interventions. However, in practice there has been rather less action: many interventions are still at proof-of-concept stage. Perhaps understandably, there have been even fewer formal evaluations. Nevertheless, it is noteworthy how little information on innovative PPPs for agricultural value chains is readily available. This paper does not provide an exhaustive review of available evidence, but it does set out what the authors believe to be important general lessons for Africa from experience so far. One objective is to stimulate deeper

* A longer version of this paper was commissioned by the Trade and Markets Division of FAO under the EU-funded All ACP Agricultural Commodities Programme. The authors are grateful for comments on the paper from participants at a workshop at FAO, Rome in June 2010. Sections of the paper also benefited from research assistance from Elena Baglioni and from discussions with Mark Thomas (manager of DFID's Food Retail Industry Challenge Fund), Brinda Ganguly (Rockefeller Foundation, New York) and Akin Adesina (AGRA, Nairobi). Final revision accepted: April 12, 2011.

debate on the potential of PPPs in the hope of bringing information currently buried in gray literature out into the full public arena.

In this paper some reference is made to PPPs in agricultural value chains in other continents, but experience with PPPs in agricultural value chains in Africa is also compared with experience within nonagricultural sectors in Africa. Much of the literature here is quite critical of PPPs in practice and sometimes also as a concept (foisted by donors on unconvinced governments for ideological reasons where privatization of state activities was not considered a viable option). Nonagricultural examples are considered relevant here because the low capacity of many African states and often ambiguous attitudes toward private sector-led development among political elites can be expected to affect public engagement with the private sector irrespective of sectoral boundaries.

The paper proceeds as follows: In Section 2 reasons for the poor functioning of agricultural value chains are briefly discussed, leading to an understanding of the types of market (and associated state) failures that PPP mechanisms may be designed to address. Section 3 presents a typology of PPP mechanisms that is used to structure later sections. Section 4 draws on principal–agent theory to highlight the major design challenges facing PPP mechanisms. Sections 5–8 review experience with different mechanisms both in nonagricultural and agricultural contexts to address the following questions:

- Can PPPs remove or alleviate binding constraints on private investment?
- Can contractual arrangements between state and private sector actors incentivize the latter to provide supply chain services in ways that meet public policy objectives?

Finally, Section 9 concludes.

2. REASONS FOR POOR FUNCTIONING OF AGRICULTURAL VALUE CHAINS

Following agricultural market liberalization in Africa private traders have taken up many opportunities to purchase output from producers, although levels of entry and competition vary across geographic space. In general, private sector participation in the provision of pre-harvest services has been more limited than participation in output marketing. However, there are significant differences across crop groups, with the incentives for investment in service provision for traditional export cash crops generally much stronger than for food crops (Poulton, Dorward, & Kydd, 2010). Private investment in crop storage has been another "disappointing" area, contributing to increased price volatility post-liberalization.

The reasons for these outcomes remain contested. Jayne, Govereh, Mwanaumo, Nyoro, and Chapoto (2002) argue that states have not fully withdrawn from many input and output markets; their continued presence—and/or the continued *threat* of state intervention—discourages private investment. Commission for Africa (2005) and Jayne, Govereh, Wanzala, and Demeke (2003) emphasize the impact of low public investment in basic infrastructure on private investment opportunities in agricultural marketing. Kherallah, Delgado, Gabre-Madhin, Minot, and Johnson (2000) and Fafchamps (2004) argue that important institutions required to support efficient private markets have not been established. Finally, according to Poulton, Kydd, and Dorward (2006), important coordination issues have to be tackled to overcome "low level equilibrium traps" constraining agricultural production and marketing activity in many parts of rural Africa. Meanwhile, in important export markets, consumers, retailers, and legislators are demanding greater assurances about produce quality and safety. This makes it difficult for African supply chains, especially those relying on large numbers of smallholder producers, to stay competitive (Henson & Reardon, 2005; Otsuki, Wilson, & Sewadeh, 2001), thus discouraging investment.

As greater emphasis has been placed on the role of transaction costs and the associated risks in constraining private sector activity in African agricultural markets, so there has been a search for ways in which public agencies might share some of these costs and risks. Many of the interventions discussed in this paper have this objective. However, high transaction costs are not the only constraint to greater private sector investment in African agricultural markets, nor even necessarily the binding constraint. PPPs will only encourage greater private investment where they tackle the binding constraint to such investment. While a sharing of transactions costs and risks could partly compensate for high costs due to an unstable macro-economic environment or inadequate physical infrastructure, it is unlikely to stimulate greater private investment where unpredictable state policies are what currently discourage such investment.

Table 1 summarizes a range of market failures affecting African agricultural markets and indicates where some form of PPP might stimulate greater private involvement. Note that there may also be other public interventions that can stimulate greater private sector participation. For example, publicly-funded marketing information or business development services may reduce barriers to entry in agricultural markets. However, it is only interventions where a state agency enters into some form of contractual relationship with a private sector partner(s) that are defined as PPPs and reviewed in this paper.

Meanwhile, some PPPs attempt to stimulate private involvement in the provision of services traditionally provided by the public sector (row 2). Often, the original rationale for public sector provision was market failure, emanating from the public or merit good attributes of the services in question. However, where state provision is also perceived to have failed, innovative ways are being sought to bring the private sector in after all.

3. PUBLIC–PRIVATE PARTNERSHIPS: A TYPOLOGY

Table 2 categorizes PPPs according to the type of investment that they seek to stimulate or other role that they might play. While in practice the boundaries between categories can be blurred, the rows in Table 2 are intended to correspond to those in Table 1. Thus, for example, PPPs to develop new products and services principally tackle problems of barriers to entry (row 3 in both tables). Table 2 identifies sectors outside agriculture where the relevant mechanisms have been used, as well as applications related to agricultural supply chains.

Two details of Table 2 may require more explanation at this point. Firstly, row 2 distinguishes (a) contracts for delivery of services where public sector financing is expected to be required for the foreseeable future, from (b) good or services where, after a period of improved access (hence greater familiarity), consumers' willingness to pay might be sufficient to sustain a commercial service. In the latter case, public funds may be used to stimulate demand in the short-medium term. This, then, represents an intermediate case between contracting out of a public service and support for the development