Brokering Development:

Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains

Summary of Rwanda Case Study

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This is a summary of the Rwanda Country Report, which was written by Jean-Marie Byakweli and Felix Nzeyimana, based on research carried out in 2014 in association with the Institute of Development Studies (IDS) and the International Institute for Environment and Development (IIED) as part of an IFAD-funded programme on the role of PPPs in agriculture.

It is one of the four IFAD project-supported Public-Private-Producer Partnerships analysed for the research report 'Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains'. The report syntheses the four case studies and discuss the findings on how PPPPs in agricultural value chains can be designed and implemented to achieve more sustained increases in income for smallholder farmers and broader rural development.

Design: Lance Bellers and Gary Edwards.

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Executive summary

Developing country governments and donors are increasingly looking to public–private partnerships (PPPs) to deliver growth and positive development outcomes in agriculture. Capturing learning from the experiences of two PPPs in Rwanda involving tea estates in two areas of the Southern province (Nshili and Mushubi) provides important lessons for other programmes with PPP arrangements.

Eager to put the 1994 genocide and its many destabilising legacies behind it, the Rwandan government looked to the private sector for much-needed finance to drive economic growth. The government, with strong input from IFAD, aimed to reach the most vulnerable people (particularly female-headed households living in poverty) in some of the poorest areas of the country, with a strategy to develop certain crops (in this case, tea). The two PPPs were designed and implemented as part of the government's privatisation policy, from 2003. It aimed to secure substantial public and private sector investment to drive an increase in smallholder incomes and generate new employment opportunities. Increased household incomes would contribute to poverty reduction and improve food security in tea-growing regions.

The model used for the PPPs at Nshili and Mushubi was broadly similar:

- The private investor (in both cases a consortium) leased land from the government to manage a tea plantation and build and operate a tea factory.
- The government provided infrastructure improvements (roads and electricity) to support the factory.
- The private investor bought 85 per cent of shares in the factory, with the government granting the remaining 15 per cent to the cooperative (purchased by IFAD).

The two tea PPPs enabled smallholder tea growers to increase household incomes, which have helped people to acquire livelihood assets, improve the family diet, and pay for health insurance, among other important changes. They also generated new employment opportunities and brought improvements in road and energy infrastructure, providing a much-needed boost to the local economy.

But they have also faced some important constraints, not least around productivity and financing. As they move forward, the key challenges lie in:

- risk sharing between the private investor and smallholder farmers, where farmers are bearing high risks around production, financing, and other key aspects of the PPP
- building viable, community-owned businesses
- consultation, voice and empowerment
- reaching the poorest smallholders

Overall, the experience of the two PPPs studied here suggests that development of the tea sector should be viewed as a long-term venture that needs careful planning, a sound financing model, and strong risk-mitigation strategies. Such partnerships require appropriate legal instruments to ensure that they function effectively, with clearly defined responsibilities and lines of accountability. The deliverables expected from each party should be clearly outlined, and arrangements should include conflict-resolution processes.

Introduction and overview

Objectives of the case study

This report forms part of a series of case studies that seek to identify key success factors for public–private partnerships (PPPs) in rural development, based on learning from IFAD's experiences with PPPs in four countries (Ghana, Indonesia, Rwanda and Uganda). The aim of this series is to support policy and decision-makers in government, business, donor agencies and farmers' organisations to build more effective PPPs that bring about positive development outcomes sustainably and at scale. The study identifies key elements of PPP design and implementation that lead to positive (or negative) development outcomes for smallholders and rural communities, by exploring four questions:

- What constraints was the PPP set up to overcome, and what was its theory of change?
- What were the key features of how the PPP was brokered, designed and implemented?
- What have been the development outcomes for smallholders and rural communities to date?
- How have these outcomes been influenced by the PPP brokering, design and implementation?

Methodology

The research team conducted a desk review in Kigali examining key policy documents, reports and other data from government departments, IFAD, and other organisations. Fieldwork was carried out between June and August 2014 in Nshili (Nyaruguru district) and Mushubi (Nyamagabe district), both in Rwanda's Southern province. It involved meetings with district government officers, cooperative leaders and members, smallholder tea growers, tea factory and tea plantation managers, and pluckers.

Data were collected through a mixture of key informant interviews, stakeholder meetings (one before and one after fieldwork, to share preliminary findings), field visits and focus group discussions (with beneficiary and non-beneficiary smallholders). The limitations of the study include the risk of bias from using small sample sizes. Also, the interviews were held at only one point in time, and may not therefore have reflected seasonal factors. Data collection was also a challenge, mainly because there was a lack of clearly written assumptions underlying the theory of change and, there were no specific PPP indicators in the baseline study for IFAD's Smallholder Cash and Export Crops Development Project (PDCRE) (2003–2011) (described below).

Indeed, PPP arrangements – although considered an important innovation in the tea sector – were introduced by the government in the course of the tea privatisation process, not as a policy instrument to guide the process but rather as a tool for implementing privatisation. It was not until 2014 that the Rwandan government drafted its first PPP Policy and Regulations guidelines.

Country context

Rwanda's population is predominantly rural (90 per cent) and young (45 per cent under 14 years old). Its economy, which had experienced rapid growth in the 1960s and 1970s on the back of strong global markets for tea and coffee exports, had stagnated by the mid-1980s. A poverty rate of 70 per cent and a big increase in the proportion of female-headed households were among the many legacies of the 1994 genocide.[1] As at 2011, the national poverty rate stood at 44.9 per cent.[2]

Political and economic context

With the restoration of peace in 1994 and the return of the refugees in 1995/96, the new government initiated policy reforms to stimulate economic recovery and decentralise services and budgets to district level, emphasising community participation in the planning and implementation of development programmes. The government's Poverty Reduction Strategy Paper (2001) aimed to address major challenges constraining economic growth. It aimed to raise export earnings, increase agricultural production, support non-farming activities in rural areas, and diversify the economy. As part of its Vision 2020, the Rwandan government saw PPP arrangements as a vehicle for securing the country's transition from a post-conflict aid-dependent government to a self-sustaining nation with privatised public industries. The Rwanda Economic Development and Poverty Reduction Strategy (EDPRS) 2008–2012 sets out medium-term objectives and financial allocations for different sectors.

The tea sector

Coffee and tea are Rwanda's major export products. From the late 1990s until 2012, the vast majority of the country's tea factories and estates, which were owned by the government and run through the parastatal OCIR-THE,[3] were privatised through the establishment of PPPs.[4]

The Rwandan government implemented its first Tea Development Strategy from 2003 to 2010, designed to address the sector's main challenges, namely: low incomes for smallholder tea growers, the low yield of green leaves (as well as poor quality and supply of green leaves and limited use of fertiliser), lack of product diversification, enhancing value added through branding and packaging, and improving marketing (through direct sales instead of at Mombasa auctions). The strategy succeeded, enhancing quality and increasing production, from 14,500 MT in 2000 to 24,066 MT in 2011.

Overview of the PPP

This study focuses on two established PPPs (at Nshili and Mushubi, in Southern province), both facilitated and funded by IFAD (the specific arrangements for each are summarised below). They emerged from a previous IFAD-supported government of Rwanda project, the Smallholder Cash and Export Crops Development Project (PDCRE), which ran from 2003 to 2011 and supported smallholder tea growers to develop their production and form two cooperatives[5] – known as COTHENK in Nshili, and COTHEGAB in Mushubi. From 2011 onwards, through a follow-on project (Rural Incomes through Export Project, or PRICE), IFAD has continued to provide technical and financial support for tea development and cooperative capacity building while facilitating and strengthening the two existing PPPs. It also plans to develop greenfield sites in Gatare, Rutsiro, Karongi and Muganza-Kivu for tea production, using lessons drawn from PDCRE.

Partnership agreements

The first partnership agreement was signed in 2006 in Nshili to rehabilitate a tea plantation formerly owned by the government, to establish a tea factory, and to develop smallholder tea farming. The second PPP, at Mushubi, saw an agreement signed in 2009, which introduced tea growing for the first time in the area, setting up a factory and tea plantations managed by the private investor and by smallholder farmers. These two PPPs are based on a general agreement signed between the government of Rwanda (represented by the National Export Development Board or NAEB), and a private sector consortium (which involved different businesses at each site).

In Nshili, the private consortium comprises three companies:

- BARCO (the majority shareholder)
- Rujugiro
- MIG (Multisectorielle d'Investissement de Gikongoro).

BARCO is a UK-registered company; Rujugiro is a local businessman, while MIG is a locally registered company operating in Southern province.

In Mushubi, the private investor is also a consortium, comprising:

- MIG (the majority shareholder)
- SORAS (Société Rwandaise d'Assurances), a local insurance company
- SPIC (Southern Province-owned Investment Company).

These two agreements stipulated that the private investor would lease land from the government to manage a tea plantation (known as an industrial bloc) and build and operate a tea factory. The government agreed to provide the necessary infrastructure (roads, electricity) to support the factory. The private investor would hold 85 per cent of the shares in the factory, while the government granted the remaining 15 per cent[6] to the cooperative at each site. There is, however, no agreement signed between the private investor and the cooperative. The factory is supplied with green leaf tea by the private investor's plantation, individual smallholders (Thé Villageois or TV) who own small plots between 0.25 and 0.5 ha (all of whom are members of the cooperatives) and, in Nshili only, a smallholder cooperative plantation.

Amounts invested by each partner

The total amount invested by the Rwandan government (financing construction, upgrading and maintenance of roads, establishing the electricity grid, and supporting tea development) is not known. Investments by other partners were as follows:

- Construction of the factory in Nshili by the private investor – $5 million (RWF 3 billion) and in Mushubi by the private investor - $7 million (RWF 4.8 billion)[7]
- Smallholders' shares in the tea factory – approx. $220.000 (RWF 150 million) for each cooperative - financed by IFAD through the government
- Support to cooperatives and smallholders to develop their tea plantations – total amount unknown (support provided by IFAD through OCIR-THE/NAEB)
- Smallholders' labour in establishing and developing tea plots – total amount unknown

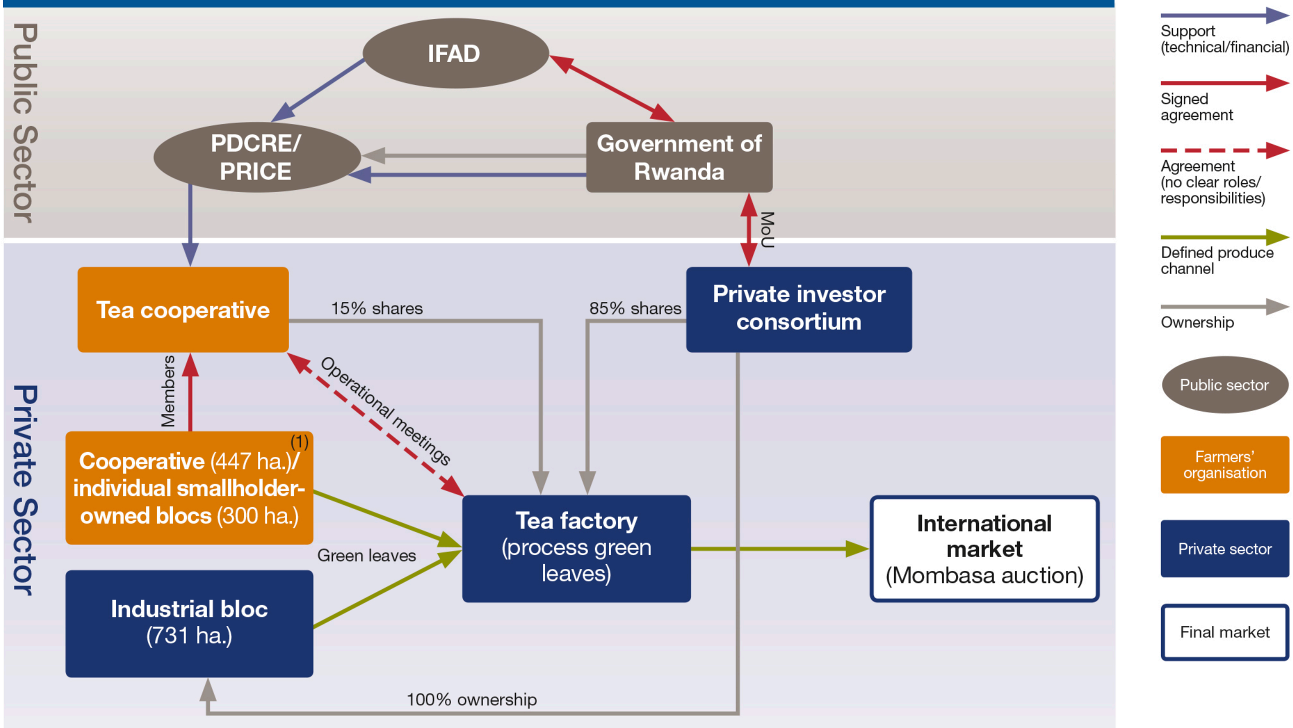
PPP modalities in each site

Nshili
In Nshili, tea production covers 1,478 ha, split as follows:

- an industrial bloc of 731 ha leased from the government by the Nshili Kivu Tea Plantation (NKTP), which is 100 per cent owned by the private consortium
- a cooperative bloc of 225 ha given by the government to COTHENK, and a newly cultivated cooperative bloc of 222 ha, financed by PDCRE
- individual privately owned smallholder plots totalling 300 ha belonging to 352 Thé Villageois (TV), financed by an eight-year loan from Banque Rwandaise de Développement (BRD), granted in 2009. (It is important to note that tea bushes have a three-year gestation period and take around seven to eight years to reach their full productive potential of 7–8 MT/ha.)

Mushubi
In Mushubi, tea production covers 1,397 ha, split as follows:
- an industrial bloc of 460 ha leased from the government by the Nyungwe Highland Tea Company (NHTC), which is 100 per cent owned by the private consortium
- individual privately owned smallholder plots totalling 937 ha belonging to 966 Thé Villageois (TV), of which 350 ha are fully productive, 137 ha are partially productive, and 450 ha are newly planted plots. These are all grown on privately owned land, with development supported by an eight-year loan from BRD, granted in 2009.

Figure 1: PPPP arrangement in tea palm value chain in Rwanda



(1) Details used following Nshili's structure, for illustration purposes only. Mushubi details vary, with individual smallholders owning 937 ha. and the industrial bloc 460 ha. However, the structure in Mushubi remains broadly the same.

In Mushubi, the tea factory (the Nile Tea Company or NTC), which only began operating in October 2013, has a different shareholding structure, with 70 per cent owned by the private consortium, 15 per cent by the government (through the NAEB),[8] and 15 per cent by the cooperative.

Comparison of the two modalities

There were many similarities between the two sites (no major differences in terms of agro-ecological zones, low fertility soils, limited food production, few alternative employment options). However, in Nshili, farmers had some prior knowledge of tea production, and tea development started there much earlier (1983) than in Mushubi (2004). Furthermore, the factory in Nshili has been operational since 2008, while in Mushubi started in 2013. Extension work and tea development has therefore been more challenging in Mushubi. While the cooperatives in both sites are still comparatively weak, COTHENK (Nshili) seems to be better organised and have a more dedicated membership. There also appear to be some differences between the two sites in terms of the relationships and dialogue between the cooperative and the tea factory.

In Nshili, dialogue between COTHENK and NKTF is better structured and organised, while in Mushubi, dialogue between COTHEGAB and the tea factory owners is not formalised. This may be a reflection of the fact that COTHENK and NKTF started to work together since 2008, and Mushubi did not start until 2013 (see table 1 below for key features of the two cooperatives). Also, COTHENK has its own tea plots, while COTHEGAB does not own any; only its individual members do.

Theory of change

Although there was a theory of change behind the PPPs, it was not documented early on, and turned out to be based on assumptions not clearly articulated. In line with its privatisation policy, the government was looking for private investors for long-term partnerships who could commit funds to build factories and partner with tea growers, in two very poor and underdeveloped areas of the country. This partnership would help smallholders increase their green leaves productivity while adding value through a processing plant, which would boost incomes further by providing opportunities for casual labour, as well as dividends to producers through their shareholdings. Spillover effects of increasing smallholders' incomes would include better health, nutrition and housing, while upgraded roads and other infrastructure would enable new business centres to emerge in the two areas.

Assumptions were made in a number of areas, particularly around technical capacity and social capital, including, for instance:

- a stronger capacity of the cooperatives and their aptitude for running a business
- productivity levels smallholders were able to achieve during early years assumed to be higher
- smallholders' willingness to focus on tea production rather than other crops
- higher cooperatives' ability to meet loan repayments after three years.

Table 1: Key features of the two cooperatives involved in the PPPs

	When established	Membership	Members involved in the tea PPP	Tea plots (ha)	Cooperative shares in tea factory
COTHENK (Nshili) (Nshili Kivu, Nyaruguru district)	Created 2005, officially approved 2011 Factory operational in 2008	2,560, 38% women	352[9]	Comprehensive research, COTHENK plantation: 447 ha TV: 300 ha individual plots	15%
COTHEGAB (Mushubi) (Gatare-Buruhukiro, Nyamagabe district)	Created 2007, officially approved 2011 Factory operational in 2013	966, 28% women	966	TV: 937 ha individual plots available, of which 350 ha currently under production	15% share in the Nyungwe Highland Tea Company (NHTC), which owns the factory

Analysis

Key elements of the PPP

Design
In parallel with its privatisation policy, in 2003, the Rwandan government, together with IFAD, pursued the establishment of partnerships to support the rehabilitation of the tea sector in two less-developed areas of the country where alternative livelihood options for rural households were limited. The two PPPs were set up between newly established tea-producing cooperatives, selected private investors, and the government.

The government established these two PPPs to improve the productivity of its tea plantations, and, at the same time, to introduce farmers to growing tea as a way of increasing incomes and reducing poverty. To improve tea sector yields, it focused on improving smallholders' access to inputs and services, and revisited its tea pricing policy. The government, supported by IFAD, organised the farmers into cooperatives and provided them with technical and financial support. To guarantee their representation and linkages with the private investor, and as an additional incentive, each cooperative was granted a 15 per cent shareholding in the tea factory, yet there is no agreement signed between the factory and the cooperative.

To attract private investors to build a tea factory in these less-developed areas, the government offered various incentives:

- leasing land to the private investor
- the opportunity to manage part of the tea plantation formerly owned by the government (the industrial bloc)
- state provision of infrastructure (roads and electricity).

The government was looking for a private investor partner to build and operate the factory and manage the industrial bloc, and to form a long-term partnership with smallholder tea growers. However, it did not operate a competitive bidding process to select the main investor. Instead, it opted for a non-competitive bid, partly reflecting the remote and underdeveloped nature of both sites, which were deemed unattractive to private companies and therefore did not lend themselves to a competitive bid. The government identified a potential private investor and offered the incentives package listed above. In both sites, it approached a local private investor (MIG) that had knowledge of the tea sector. The company was also familiar with the government and the national context, which helped to build trust. The government's agreement with the main investor stipulated that the latter could not increase the size of its plantation beyond 30 per cent of the total acreage (currently at Nshili, the industrial bloc accounts for half of the total acreage under cultivation, though this is expected to be reduced as more TV members plant further tea plots; at Mushubi, the industrial bloc accounts for 32 per cent). This was designed to ensure that the factory needed to secure supplies from the cooperative bloc and the TV to be profitable, giving all partners a shared incentive to make the PPP work.

IFAD supported the PPPs through the PDCRE/PRICE, playing a key role in facilitating and brokering the arrangements with the Rwandan government and other partners throughout the design and implementation stages. Among its many roles, IFAD:

- provided funding to develop the institutional capacity of the cooperative in each site
- provided funding to purchase each cooperative's 15 per cent equity share in the tea factory (worth $220,000)[10]
- financed the feasibility study for the Mushubi tea factory
- helped negotiate loan terms with the BRD and the government on behalf of smallholder tea growers
- helped to select beneficiaries, ensuring the inclusion of women smallholders as a key means of reducing rural poverty
- provided and funded technical assistance to the government, the private investor, and the cooperatives as well as to individual tea growers

Implementation
In each PPP, the main investor contributed financing (to build the tea factory), working capital, and technical and managerial skills for tea processing, marketing and selling, as well as training staff. The role of the cooperative was to guarantee a regular supply of quality green leaves to the factory, while liaising with external partners for training of their members (in tea crop management and organisational skills), and representing them at meetings with the factory board meetings and government officials.

The interdependence between the factory and smallholder tea growers (given that yield from the industrial bloc alone would not be sufficient for the factory to function) has led to a strong relationship between the factories and cooperatives on operational matters such as productivity, transport and fertiliser. However, there are no written agreements between the main investor and the cooperative, so there are no clearly defined linkages between the factories and tea growers in terms of responsibilities and lines of accountability for factory management. Furthermore, during the negotiations for the PPPs, neither the government nor the main private investor consulted the tea growers on business plans for the factories.

In Nshili, the tea plantation company (NKTP) currently provides most of the green leaves processed by the factory. COTHENK supplies a relatively small proportion, while individual smallholders (TV) only started supplying the factory in 2010. The cooperative blocs (447 ha) and TV blocs (300 ha) received government extension support through the PDCRE/PRICE projects in terms of nursery preparation, initial planting costs, and cropping techniques. In addition, the tea factory supports COTHENK by providing subsidised fertiliser (at 50 per cent of its market price) (see box below for details of the pricing mechanism) as well as technical and logistical support (infilling, transportation services, etc). In Mushubi, MIG and the NHTC provide logistical support to COTHEGAB (transportation, tea plantation expansion).

Despite strong external support, in its first few years, the tea factory at Nshili experienced considerable financial constraints, partly because it was not yet connected to the electricity grid so incurred high fuel costs. The high ‘vacancy’ rate (the proportion of dead trees) is a major problem for all tea blocs (industrial, cooperative or TV). In Nshili, this is due to the legacy of poor practices before privatisation, while in Mushubi, the high vacancy rate is due to poor soil, poor crop management and inadequate fertiliser to support young trees. A high vacancy rate was not factored in during the design stage, so no financial provisions were made to address this.

Pricing

The price of tea used to be set by the government at a uniform flat rate, irrespective of producer constraints and labour markets. High-quality leaves were not incentivised or remunerated. The World Bank deemed this pricing system to be incompatible with the long-term sustainability of the tea industry in Rwanda. In addition, pluckers were paid below-market wages, which led to shortages, longer plucking rounds and low leaf quality.[11]

In 2014, the government asked the World Bank to design a new pricing mechanism on the basis of the international market for processed tea. This means the price of green leaves would be set as a percentage of made-tea prices on international markets. These new arrangements should strengthen profits for producers and processors.

Despite higher operating costs in Rwanda than in neighbouring countries, a more equitable price for made tea should increase tea growers’ incomes. (The net income ranges from RWF 25.4 to 49.2, depending on whether labour needs to be hired in.) This represents between a quarter and a half of the purchase price for green leaves, or between 5.8% and 11.4% of the made tea sale price. By comparison, in Tanzania, for example, tea growers receive 27% of the made tea price; this figure is almost 75% for tea growers in Kenya.

The World Bank suggested a system whereby the price of green leaves should increase gradually, from 35% of auction prices (July 2012), reaching 50% by July 2015. As the new system links the price of green leaves to the auction price, this should motivate farmers to produce more higher-quality leaves. But should the international auction price for green leaves fall, growers will receive at least RWF 100-105/kg, a national minimum average set by the government.

This new mechanism is expected to raise factory quality standards and boost tea exports while helping smallholders move out of poverty. The World Bank estimates that factory margins should gradually reduce from 35% to 13%, but still be highly profitable. At the same time, smallholder incomes should increase by almost 140%, making significant inroads towards poverty alleviation targets. However, the impact of the new pricing policy has yet to be evaluated.

However, the NKTF has succeeded in making a profit, paying dividends to COTHENK in 2013 of RWF 45 million, some of which was used to buy a truck so that COTHENK no longer had to rely on NKTF for transporting the leaves. The factory in Mushubi only began operating in October 2013, so has not yet paid dividends.

Productivity

Both sites suffer from low productivity. At Nshili, this is due to poor tea bush care prior to privatisation, a high vacancy rate (after infilling, new bushes have low yield in first few years), high altitude, poor ability of soil to retain water, and use of a low-yield tea clone (which accounts for 70 per cent of the area planted). Yields are higher on the NKTP-managed blocs. At Nshili, the yield on COTHENK plots has increased considerably since privatisation, from 1,707kg/ha in 2007 to 3,594kg/ha in 2013.[12] The NKTP yield increased from 2,042kg/ha in 2004 to 4,318kg/ha in 2013. The yield gap between the two blocs has been narrowing over time and continues to do so.

At Mushubi, the yield on COTHEGAB-managed plots is low (2.5 MT/ha) compared with NHTC-managed blocs (4–5 MT/ha), and the vacancy rate is higher (30 per cent compared with 10–20 per cent). Production constraints include limited use of fertiliser (due to a complicated and lengthy procurement system and transport delays) and lack of casual labour at peak times (many labourers opt for potato production), with rising labour costs keeping tea growers' profit margins low.

In terms of financing, both cooperatives took loans from the Banque Rwandaise De Développement (BRD) (over an eight-year period, at 8.5 per cent interest) to finance tea expansion and purchases of fertiliser and other inputs, using their equity share and land titles as collateral. The loan agreement stipulated that individual beneficiaries would start making repayments at year three (i.e., 2013 for Nshili and 2014 for Mushubi), assuming a yield of 6-7 MT/ha per year. In 2014, BRD provided an additional loan to COTHEGAB in Mushubi. Terms and conditions are almost the same as in the previous loan.

While the recorded yields are increasing each year at each site, they are still far below the expected yield set out in the loan feasibility study. During their early discussions about the PPP, the Rwandan government and IFAD assumed that tea production was not only viable in the two areas but also profitable in the short term. But tea growing is a relatively costly livelihood and requires longer-term investment to deliver optimal outputs (bushes take at least three years to produce leaves, and up to eight years to reach maturity), while ecological and environmental factors can represent important constraints. In addition, poor crop management practices on the land prior to privatisation have led to high 'vacancy' rates (20–30 per cent) on cooperative land, limiting any potential increase in short-term yields. As a result, all tea blocs (whether industrial, cooperative or Thé Villageois) incur high 'infilling' costs, for which no financial provisions have been made. This has given rise to major challenges around loan sustainability (see later section).
The BRD loans to smallholder tea growers are strictly limited to inputs needed for tea production (eg, fertiliser), not for other crops or income-generating activities. According to the focus group discussions and key informant interviews at both sites, tea growers have not used the loans for other purposes (such as investing in livestock or housing improvements, etc.), since the loans are released in instalments based on accomplishing certain tasks on the tea plots. While productivity remains well below its potential, it is important to understand that smallholders' incomes are derived partly from the sale of green leaf tea, and partly from waged labour (in the factory, on tea estates, or as labourers/pluckers).

Brokering
The Rwandan government played a key role in driving the PPPs to develop the tea sector. It acted as an enabler, attracting private investors by creating a conducive policy environment and offering financial incentives, negotiating long-term lease agreements, mobilising farmers by providing extension services, and improving local infrastructure in the selected areas.

IFAD played the role of enabler from the design stage through to implementation (for instance, funding and conducting a feasibility study for the tea factory in Mushubi and developing the reformulated tea component of PDCRE for both sites). It also provided funding channelled through the two government programmes, PDCRE and PRICE, and has taken a lead role in programme monitoring and evaluation. IFAD also focused on ensuring that the poorest smallholders would be among the beneficiaries (30 per cent of whom were to be female-headed households).

The PDCRE: Helping families diversify livelihoods and afford health insurance

Before 2008, Mageza Gervais, a tea grower in Gatare sector, Mushubi, was struggling to earn RWF 2,000 (c. $29) a month, migrating to Mayaga (70km away) for seasonal labour. He had to leave his family for long periods and was not able to support them. But in 2008 he managed to acquire a 1.4 ha tea plot with the support of the government, through the PDCRE.

Now, he earns around RWF 15,000 a month (c. $257 a year) – almost eight times what he used to earn. With the income he has earned from selling green leaf tea he has bought a pig and two goats. He has built a new house with an iron sheet roof, and has opened an account at the local bank, which provides access to loans. He and his family are enrolled in the universal health care scheme.
margins low.

Development outcomes

This section is in no way intended to be an evaluation of the two PPPs or their outcomes. Instead, we focus on the extent to which the PPPs were a successful instrument for achieving the PPPs' objectives of increasing productivity, boosting, upgrading infrastructure, and enabling development. The two PPP arrangements have delivered some impressive achievements at the household level in a relatively short period of time – notably in relation to ownership of assets, new job opportunities and increased household incomes, and ability to meet basic needs and pay for basic services (see boxes for what this means to individual families).

The PDCRE: Helping families improve their diet and afford school fees

Bakanirora Edureda lives in Gatare sector, Mushubi. Through the PDCRE, the government helped her acquire a 1.5 ha tea plot. In 2006, she could only afford to eat Irish potato and struggled to earn RWF 3,000 a month (c. $51 a year). Now, she earns eight times that amount. She has bought a cow so that the family can have milk. And she can afford to pay her children's school fees. She is also a member of her local Savings and Credit Co-operative (SACCO).

Table 1: Summary of development outcomes achieved by Rwanda's public–private partnerships in the tea sector at Nshili

Development outcomes	Baseline (2006) survey	Outcomes[7]	Evidence and attribution to PPP
Food security: Access to food all year round (without needing to borrow money or food to meet basic consumption needs)	Limited food production due to poor soil productivity and lack of income In 2004, the number of people having 3 meals/ day was 4% in Mushubi and 5% in Nshili Animal products consumption was limited	Food production increased in Nshili and Mushubi. By 2010, number of people having 3 meals increased to 9% in Mushubi and 10% in Nshili Focus group discussion in Mushubi and Nshili confirmed greater access to food and more diversity through (i) improved production and (ii) local food purchase on markets President of COTHEGAB cooperative (also a medical technician) confirmed a decrease in under-fives with protein deficiency in tea-growing households	Increased income from tea enabled farmers to invest in soil productivity (fertiliser, seeds, lime, etc), and animal production provides manure which improved productivity Tea growers managed to acquire dairy cows and small animals in both Nshili and Mushubi (goats, pigs, chickens, etc) or to access meat and milk through local purchase
Assets: Household income (measured in terms of access to or ownership of key assets such as electricity, forms of transportation, communication devices or types of cooking fuel)	In 2006, no data on number of houses with tile roofs and constructed with bricks No. households owning a radio: 44% in Mushubi and 50% in Nshili	In 2010, the number of households with roofs covered by tiles had increased by 29% while those with grass roofs haddecreased by 88%; those with brick-built houses had increased by 120% in tea-growing sites In 2009, the number of households owning a radio: 91% in Mushubi and 60% in Nshili	Evidenced through PDCRE Impact Assessment of 2010 and focus group discussions at Nshili and Mushubi in July 2014
Wellbeing: Perceptions of wellbeing among farmers and other community members	Health : no universal medical coverage available in Nshili and Mushubi Water facilities non-existent No electricity	By 2010, 84% of tea-growers in Mushubi and 80% in Nshili were affiliated to medical health insurance (Mutuelle de Santé Water facilities developed Number of smallholder tea growers with houses connected to electricity grid increased in Nshili and Mushubi;	Smallholder houses connected with electricity grid in Nshili and Mushubi is higher than houses belonging to non-tea growers in both sites
Land tenure issues: access to land and security of tenure	Land was owned but not officially registered with titles. Land administered under both customary and national law Number of hectares owned cooperatives in Nshili = 0	COTHENK cooperative, in Nishili, owns 447 ha. Land registered under law with certificate, in 2014, 310 ha. in Nishili owned by 352 members and 937 ha. in Mushubi owned by 966 members. So land tenure better protected than before.	937ha of TVs financed by BRD and managed by 966 individual TV in Mushubi 310 ha. of tea plot financed by BRD and managed by 352 individual TV in Nishili 447 ha. granted by the government, owned and managed by COTHENK (2,560) supported by PDCRE

Development outcomes	Baseline (2006) survey	Outcomes	Evidence and attribution to PPP
Empowerment: Voice and influence in decision-making processes (e.g. policy processes,	No baseline	There is still a long way to go before smallholder farmers will be empowered to play a greater role in local- and national-level discussions and decision-making – for instance, participating in price negotiation There is a sense that despite being shareholders, the cooperatives still lack a sense of ownership of the factory companies	COTHENK was created in Nshili and COTHEGAB in Mushubi to organise and empower smallholder tea growers The emphasis is on establishing autonomous producers, capable of adding value to tea green leaves instead of maximising commodity production
Gender empowerment: Involvement, by women who participate in crop production, in farm decision-making	No baseline	Improvement: women have gained a say in coop activities, as board members or members of management team	In both COTHENK and COTHEGAB, women are board members, while others have responsibilities for managing the cooperatives
Access to services and infrastructure	In 2004, no feeder road available in tea plots, no electricity connection	Inputs made available have improved soil productivity Feeder roads and electricity grid constructed. But some road segments in Nshili are not upgraded, increasing costs of some inputs compared to competitor sites (e.g. energy, transport).In Mushubi, frequent power fluctuations and failures affect product quality and increase production costs, as does the lack of transport for COTHEGAB, with high transport fees	Upgraded roads have facilitated the transport of tea to Mombasa auction and promoted development of business centres MIG management team confirmed and appreciated the role of the government in upgrading roads and providing electricity in both regions
Risk management: Farmers' exposure to risk (considering also how this is affected by risk-sharing within the PPP or risk management measures like weather index insurance)	No baseline	Tea production is a long-term investment with lots of risks. Bushes take 3–4 years to start producing, only reaching peak yield by 7–8 years. Farmers bear the risk of upfront investment, with the expectation of return on this investment later	Based on group discussions and key informants interviews: both cooperatives have contracted unsustainable loans using their equity share and land titles as collateral. Repayment of loans hampered by low tea productivity

Linking the PPP and the development outcomes

A 2010 impact assessment of the PDCRE considered the main development outcomes from the tea PPPs in Nshili and Mushubi. It found the following positive outcomes.

- **Tea growers had increased their incomes through selling green leaves and working in the factories** as wage labourers, pluckers, cleaners, etc. Households have been able to use some of their extra income to invest in animals and other assets, while financial institutions (Savings and Credit Co-operatives) are now operating in both areas.

- **In both areas, the cooperative and its members now have considerable land planted with tea** (COTHENK 747 ha, COTHEGAB 937 ha) as well as shares in the tea factory. The PPPs are also linked to improvements in roads and electricity supply in both areas, as well as economic development in the broader community.

- **From a baseline of zero, 84 per cent of tea growers in Mushubi and 80 per cent in Nshili now have health insurance** (through the Mutuelle de Santé). In Mushubi, the President of COTHEGAB, who is also a health official, confirmed that the cooperative mobilises its members around health issues (vaccination, sanitation, hygiene, reproductive health issues, etc).

- **There have been notable improvements in household food security.** For instance, the number of households in Mushubi eating three meals a day increased from 4 per cent to 9 per cent (between 2004 and 2010), and from 5 per cent to 10 per cent in Nshili. In Mushubi, between 2006 and 2009, the proportion of tea grower households that could afford to consume proteins increased from 56 per cent to 79 per cent (and from 49 per cent to 77 per cent in Nshili) as a result of increased incomes and investments in animal production.

- **The PPPs have generated large numbers of permanent and seasonal jobs, as well as temporary work** in transportation and construction, in areas where livelihood options were fairly limited previously. Before the PPPs, up to 40 per cent of the labour force in both areas used to migrate to find seasonal work in Mayaga and other regions of the country. Today, there is no seasonal out-migration; the rural poor from other areas come to Nshili and Mushubi to find work.

- **According to COTHEGAB's president,** taken together, the changes that have resulted from the PPPs have proved 'transformational', not just for the households involved but others who have experienced the knock-on effects of local development.

Challenges

One of the biggest challenges facing the PPPs is that high production costs, coupled with limited outputs, may jeopardise the economic viability of the tea factories at Nshili and Mushubi in the medium term. Cooperative yields are low due to low productivity, poor-quality seedlings and high vacancy rates, undermining smallholders' ability to meet loan repayments. Due to insufficient supplies of green leaf tea, both factories currently operate well below nominal capacity – 30 per cent in Mushubi (where nominal capacity is 3,500 MT/year of made tea) and 40 per cent in Nshili (where nominal capacity is 3,000 MT/year of made tea). In addition, costs of certain factory inputs such as energy and transport are much higher when compared with competitors.

Despite laudable increases in productivity, there remain tensions between the private investor and the cooperatives. At both sites, the private investor considers that the cooperatives are not doing enough to further increase productivity through more intensive crop management, weeding, pruning, and proper use of fertiliser. In addition, factory operations (receiving and weighing the leaves, processing, procurement, accounting and marketing/auctioning) are performed solely by factory staff and do not involve the cooperatives' management team. A lack of transparency and involvement in these operations may lead to mistrust between both parties. When it comes to strategic decisions (investments to make, modification of business model, auctioning, etc.) the private investor does not involve the cooperative at either site.

Although the tea factory at Nshili has begun paying dividends to the cooperative, this has taken five years since operations began. The factory incurred high operating costs in its first three years until it was connected to the national electricity grid. Poor roads in some areas still lead to high transportation costs and losses due to damage to leaves.

Capturing learning from the PPP

Promoting shared interests: The PPPs were designed to incentivise partners to work together to achieve shared success, by ensuring that the factory needed to secure supplies from the cooperative bloc and the TV to be profitable. As noted though, unless the cooperatives can significantly increase productivity at each site, their viability is at stake. This issue is beginning to be addressed at the operational level, with the factory at Nshili recently introducing a new system that pays a bonus to tea growers who supply high-quality leaves as a way of incentivising improved productivity.

The importance of a 'roadmap' for PPPs: At the time IFAD was implementing its PDCRE project, the government was beginning to privatise tea factories and estates. The PPP objectives were clearly aligned with IFAD's objectives (as reflected in the PDCRE's Reformulated Tea Component of 2006). But there was no PPP 'roadmap' detailing or formalising the processes involved, the responsibilities of each party, risk-sharing arrangements or lines of accountability. Nor was there a clearly articulated theory of change describing how the tea PPPs would deliver development outcomes for smallholder tea growers, increasing their incomes and diversifying their livelihoods. It was only in June 2014 that the Rwandan government drafted its first ever PPP law and policy framework – ten years after the privatisation of tea in Nshili and Mushubi began through the PPPs.

- **Consulting smallholder producers:** There was little involvement of smallholder tea growers and cooperatives in the negotiations for the PPPs, which meant it was difficult to establish arrangements that clearly took into account their needs and capacities. Some of the challenges around production constraints, alternative income sources in the early years of production, and loan arrangements could have been tackled head-on if smallholders had been consulted and involved in programme planning.

- **IFAD's role:** IFAD's involvement early on was critical – negotiating with the Rwandan government about the feasibility of the projects, developing the reformulated tea component of the PDCRE in 2006, and providing funds (for development of the sector and of cooperatives), particularly in ensuring a focus on reaching the poorest smallholders in the least developed areas of the country. However, future ventures may benefit from IFAD playing a stronger role in identifying appropriate technical expertise to support business planning. This may help avoid some of the problems encountered by the PPPs at Nshili and Mushubi (for instance, the situation with unsustainable BRD loans).

- **Risk-sharing:** It appears that the smallholder tea growers involved in the PPPs at both sites bear a very high risk. Both cooperatives (and their members) are now heavily indebted to the BRD, putting their future in jeopardy. Smallholders find it difficult to meet repayments, incurring penalties for arrears, and it is unclear how these loans will be repaid without major increases in productivity, which, as noted, are unlikely to be forthcoming in the short term at least. Unless a solution is found that is acceptable to all parties (which may require transforming the loan to a grant), it is possible that the BRD could take over the land held by the cooperatives, and their respective shares in the tea factory companies at both sites – threatening to undo the many positive development outcomes achieved by the PPPs to date.

- **Building viable, community-owned businesses:** The PDCRE aimed to build viable, community-owned businesses rather than pursue commodity production targets at any cost. It has succeeded in setting up and supporting independent producer groups (two cooperatives) in Nshili and Mushubi, which are actively representing and defending their members' interests.

  The government might have expected that by working closely with the private investor in the tea factory, the cooperatives would absorb some business 'know-how' and strengthen their institutional development capacity as a result. But this has not happened. Although there is direct collaboration between the cooperative and the tea factory, this is usually limited to operational matters; there are no processes for ensuring that cooperative leaders gain business experience and skills required for cooperatives to occupy a stronger position in the value chain, which would bring additional benefits for their members. Cooperative leaders could benefit from more intensive support with financial management, knowledge about managing a tea factory, and marketing/auctioning tea.

It is important to remember, though, that the cooperatives have only recently been established (COTHENK in 2005 and COTHEGAB in 2007), and organisational development is neither a short-term nor a linear process. In their eagerness to move forward with the PPPs, the Rwandan government and IFAD perhaps paid insufficient attention to the time, resources and investment needed for cooperatives to become viable, strong and financially independent institutions.These kind of outcomes require long-term business planning and financial strategies, which were absent. Today, both cooperatives are still receiving support for capacity building and institutional development from the government and IFAD, while the PRICE project is still subsidising infilling operations, nursery preparation and plantation expansion, and providing extension services to cooperatives and smallholders.

- **Voice and empowerment:** Giving cooperatives a 15 per cent shareholding in the tea factory was a positive innovation, which is producing dividends already in Nshili, but this percentage is too small to give cooperatives a significant role in strategic decision-making in the PPP (e.g. on annual targets, major purchases of equipment and other investments in the factory, and in negotiations with tea brokers, at auctions, or in meetings with government officials). In Mushubi, the private investor has called for a review of the shareholding arrangements, pushing for a 93 per cent stake due to higher-than-anticipated costs of factory construction (completed in 2013). This would leave COTHEGAB and the government with not much more than a token shareholding of 3.5 per cent each. Not surprisingly, COTHEGAB is unhappy with this proposal, presenting a potential conflict between the two parties for which there is no framework to resolve.

- **This learning is already feeding through:** the PDCRE’s interim evaluation report recommends a larger proportion of shares (40–50 per cent) for cooperatives involved in new tea ventures, with the dual aim of increasing their dividends and giving them a greater say in management and strategic decision-making.

- **Reaching the poorest households:** In Mushubi, because the poorest smallholders had limited plots (less than 0.5 ha) and few alternative income-earning options, they struggled to meet their basic food needs and earn a livelihood during the first three years (the time it takes for tea bushes to begin producing leaves). Learning from this experience has already been captured, in that the PDCRE’s interim evaluation report recommended that the follow-on project (PRICE) included a cash-for-work/food-for-work component to enable farmers to meet their basic needs until such time as the crop provides an income, and to ensure their continued involvement in what is a long-term venture.

To conclude, overall, the profitability of tea growing through PPPs should be viewed as a long-term venture that needs careful planning, a sound financing model, and strong risk mitigation strategies. PPPs in the tea sector require appropriate instruments to ensure that they function effectively in terms of service delivery, with clearly defined responsibilities and lines of accountability; the deliverables expected from each party should be clearly outlined, with conflict-resolution processes and possible penalties for any breach in the arrangements.

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[2] World Bank Data, 'Rwanda', http://data.worldbank.org/country/rwanda (accessed 6 February 2015).

[3] Since the privatisation of the tea industry in 2004, the role of the Office des Cultures Industrielles du Rwanda-Composante Thé (OCIR-THE) has been restricted to monitoring and regulation of the sector.

[4] There are four forms of tea plantation: (1) industrial tea blocs, (2) tea growers' cooperatives blocs, (3) tea growers' association blocs, and (4) village tea blocks also known in French as 'Thé Vlilageois' (individual smallholders' tea plots on family holdings).

[5] COTHENK is a cooperative formed by smallholder tea growers in Nshili and COTHEGAB is a cooperative formed by smallholder tea growers in Mushubi. Both cooperatives were initiated by the government.

[6] In Mushubi, the government currently also owns a 15 per cent share. However, this is a transitional investment, with no strategic decision-making power, hence it has not been included as part of the analysis.

[7] USD/RWF of 678.4 as of 5.05.15.

[8] The government's 15 per cent share currently owned in Mushubi is a transitional investment, with no strategic decision-making power, hence it has not been included as part of the analysis.

[9] Tea plots are expensive to maintain, not all members wanted to participate. Any member wanting to grow tea directly (as opposed to on the cooperative's bloc) can access support from PRICE for seedlings as well as training, though they need to own land. With only 41 women members growing.

[10] This was initially regarded as a repayable loan but was subsequently reformulated as a one-off grant.

[11] Key interviews with NAEB's management.

[12] The TV yield is even lower at 0.7 T/ha, and the individual smallholders only started supplying the factory in 2010.

Brokering Development:

Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains

Summary of Rwanda Case Study

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