

Pitfalls and prospects of contract farming to smallholder tobacco farmers in Shamva district, Zimbabwe

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Abstract

The objective was to assess the challenges and opportunities of contract farming to smallholder tobacco farmers in ward 27, Shamva District, Zimbabwe. Data on demographics, household endowments and economic and social achievements from tobacco production was collected using questionnaires and interviews. A systematic sampling technique was used in selecting the tobacco farmers. Data was analysed using SPSS version 26. The results show that 93.9% of the participants were males and most of the participants were educated to primary level (36.4%). Zimbabwe Leaf Tobacco Company (43%) was cited as the major company which provide contract farming to tobacco farmers in ward 27. The results further indicated that there are more opportunities received by tobacco farmers such as receiving inputs at no cost but face challenges such as poor crop yields due to low producer price (55%), high cost of production (30%), low rainfall (9%) and shortage of firewood (6%). Some participants indicated that they do not have technical knowledge on how to use chemicals and in identifying pests so that they apply the correct chemicals. It is recommended that companies which provide contract farming must collaborate with the Ministry of Agriculture and further train farmers on financial management skills, how to use chemicals and pest identification so that the quality of the leaf is improved. Nevertheless, contracting companies should provide tillage services to farmers and ensure that farmers are included in price determination.

Keywords

Contract farming, Opportunities, Side marketing, Smallholder farmers, Tobacco production

Introduction

Since the inception of the tobacco credit facility there has been great controversy each marketing season between contract tobacco farmers and contracting companies over producer prices. Contract farming refers to the contractual arrangement between farmers and a firm, whether oral or written, specifying one or more conditions of production and marketing of agricultural products (Stringfellow, 1996). Watts (1994) referred to contract farming as the relationship between farmers and private or state enterprises that substitute for open-market exchanges by linking nominally independent family farmers of widely variant assets with a central processing, export, or purchasing unit that regulates in advance price, production practices, product quality, and credit. IFAD (2003) also notes that contract farming is

the agricultural production governed by an agreement made between a buyer and a producer regarding the production and marketing conditions of one or more agricultural products. Smallholder farmers are small-scale farmers who manage farming activities varying from less than one hectare to 10 hectares. They are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption and a few surplus for sell (Kurt and Johann, 2006).

Providing smallholder tobacco farmers with sufficient inputs and purchasing their products at viable producer prices well before the onset of the rainy season are probably the most essential factors of the farmers cropping programmes. In Zimbabwe smallholder

farmers face an acute shortage of resources and the capacity needed for maximum productivity and marketing (TIMB, 2011). Smallholder farmers have the land but are constrained with financial resources to purchase the inputs. Thus smallholder farmers mostly depend on contract farming. In 1992 the Zimbabwe government embarked on the World Bank's Economic Structural Adjustment Program (ESAP), which encouraged the deregulation of agricultural marketing. This period saw the commencement of liberalization programmes for the main agricultural products which increased opportunities for companies to become involved in contract farming (Owen, 2008).

The government of Zimbabwe ceased subsidizing agricultural inputs to farmers. The agricultural bank required collateral security before granting loans. Other institutions like the Farmers Development Trust, Kutsaga and TIMB also could no longer fully support farmers especially in terms of finance. In 2004/05 season the Zimbabwe Tobacco Association linked 1523 smallholder tobacco farmers nationally to Northern Tobacco, Tribac and Zimbabwe Leaf Tobacco which process and market tobacco products. In the 2013/14 season more than 90 000 farmers registered to grow the golden leaf, with 70% of them in contract farming. Contracting companies benefit from the input credit scheme by making profits from the farmers' produce that they export or process to add value before marketing (Dawes, 2009). Some companies increase their profits by buying produce from farmers at lowest prices and in turn export them at higher prices (Reach et al., 2007; Wang and Deglad, 2014). Contract farming contributes to both increased production and income for farmers (FAO, 2001).

The main potential advantages of contract farming include provision of inputs, access to ready markets, appropriate technology and conservation skills transfer (UFAD, 2003; Wang and Deglad, 2014). Major challenges confronting tobacco growers mainly comprise of; resource limitations, poor agricultural management practices, lateness of operations, seasonal variability, defaulting by both parties, untimely provision of insufficient inputs, stiff competition among buyers, unviable producer prices and side marketing by farmers (Kumar, 2006; Kurt and Johann, 2006; Watts, 1994). Contracting tobacco farming should potentially enhance productivity and profitability. However the magnitude and reliability of the profit needs to be ascertained especially in rural wards such as ward 27 of Shamva district. The aim of the study was to assess the opportunities of contract tobacco farming and its sustainability to smallholder farmers.

Materials and Methods

Research Area

This study was carried out in Ward 27, Shamva district of Mashonaland Central Province in Zimbabwe. The study area falls in agricultural ecological region IIb and it is a hot and dry region with temperatures ranging from 21°C to 23°C during the hot season (AGRITEX, 2014). During the cold season the temperatures decline to as low as 10°C. Shamva district has an average rainfall of between 600mm and 900mm per annum (AGRITEX, 2014). Its altitude varies from 900m to 1000m above sea level. The study area is characterized

by sandy and sandy loam soils which are favourable for tobacco production.

Sampling and sampling intensity

A systematic sampling method was used to select a sample of research participants. Farmers were arranged in alphabetical order from the four selected villages in Ward 27 and every third farmer was considered as a research subject. From the target population of 110 smallholder farmers (as supplied by Crop department, Ministry of Agriculture) under contract credit scheme by various contracting companies in the ward, a total sample of 33 smallholder farmers were selected for the study. Thirty percent of the total contracted tobacco farmers were considered ideal to take part in the study.

Data collection and analysis

Only primary data was collected. The study was conducted mainly through the use of structured questionnaires and semi-structured interviews. Semi-structured interviews were conducted with key stakeholders from Agriculture extension officers, tobacco companies, the local councilor and village heads. These people were interviewed for both their perceptions and support of the contract scheme. Specific issues that were asked about the tobacco contract credit scheme included timely provision of inputs, timely payment of produce during purchasing, and challenges faced by the farmers in the contract credit scheme. Descriptive statistics and the Statistical Package for Social Sciences (SPSS) were used to analyze data so as to assess the challenges and benefits of tobacco growing under contract farming. Tables and pie charts were used to present the data.

Results and Discussion

Demographic characteristics of the respondents

The results revealed that the majority of farmers involved in the tobacco input credit scheme were male adults accounting 93.9% of the respondents (Table 1). Female headed households were 6.1%. This shows that the majority of households were headed by males. This may be attributed to the amount of labour demanded by tobacco operations and women headed families could not take up the risks involved. During interviews the female headed families practicing tobacco farming confirmed that they inherited the enterprises from their male counterparts with full farming implements, draught power and skills. They also highlighted that they have children who could help them in the whole production process. Application of techniques introduced by management like ridging, fertilizing, transplanting, thinning, de-suckering, pests and disease control and curing are hard to cope with for women headed families (FAO, 2012; Silva and Rankin, 2013).

The mean household size was six. The modal age of respondents was between 36-40 years, (36.4%), indicating that the majority of contracted tobacco farmers were middle aged (Table 1). Farmers less than 30 years and above 45 years were the minority accounting for 9.1% and 12.0% respectively. According to the respondents, young people aged between 20 and 25 years were mainly not involved in tobacco production. Key informants cited that the main reason for young people refraining from growing tobacco was their poor resource base including skills in tobacco production. The modal age of tobacco growers was 36

to 40 years with 36.4%. Farmers in this age group were skilled and energetic to run around organizing for inputs and carrying out all the necessary activities and field operations. It was noted that at the age of above 45 years, the number of farmers involved in tobacco growing decline possibly due to the strenuous work involved.

The majority of the respondents interviewed had attained education upto primary school level (36.4%), while secondary education (18.5%), tertiary education (9.1%) and 36% had not attended to any formal school (Table 1). It therefore meant that most of the respondents were better off in terms of education hence the ability to understand contract terms given to them by contracting companies. The results reflected a high literacy level of about 64% (Table 1). It follows that the majority of

respondents could read contract terms and instructions written on seed, fertilizer, herbicides and pesticides packs for proper field application procedures. Commensurate with the level of education, respondents were legible for training in record keeping and simple book keeping, an important factor for the farmers to be able to assess business profitability. Provided with enough inputs including irrigation facilities, farmers reported that they could fully utilize all the inputs supplied to them by contracting companies. Most farmers used knapsack sprayers incorrectly and the potential results included waste of costly crop chemicals, poor pest and disease control, plant injury and high levels of chemical residues on the harvested crop (Glover, 1992).

Table 1. Demographic characteristics of participants

Characteristic	Percent
Gender	
Males	93.9
Females	6.1
Age (years)	
26-30	9.1
31-35	15.2
36-40	36.4
41-45	27.3
>45	12.0
Education	
No education	36.0
Primary	36.4
Secondary	18.5
Tertiary	9.1

Contracting Companies and Services provided to farmers

The research findings show that Zimbabwe Leaf Tobacco had the largest number of contracted farmers (43%), followed by Northern Tobacco with 33% of the farmers and Chidziva Tobacco Processors with 24% of the farmers (Table 2). Respondents asserted that the major services provided by contracting companies were the supply of agricultural inputs and to some extent, working capital for labour hiring. During interviews respondents associated this variance in contracted farmers to customer care and commitment which were demonstrated by the former company. Farmers complained that these contracting companies were not

providing tillage services which were a critical component for enhancing tobacco output. However farmers confirmed that seed, fertilizers and chemicals were supplied on time (Table 3). According to Kumar (2006), one key feature of contract farming is that it provide farmers with access to markets that would not otherwise have been available to them. To some extent, contract farming schemes have acted as growth poles in sugar schemes in western Kenya, tea schemes in Tanzania and asparagus scheme in Peru. All these schemes have performed well in terms of opening up underdeveloped areas of the countries in which they are located (Silva and Rankin, 2013).

Table 2. Contracting companies and Services Provided

Name of company	Percent	Services Provided
Zimbabwe Leaf Tobacco	43	Agricultural inputs provision, technical extension services and working capital
Northern Tobacco	33	Agricultural inputs provision and farmer training
Chidziva Tobacco Processors	24	Agricultural inputs provision
Total	100	

Farmers' experiences and expectations with contract farming

About 51.5% of the respondents reported that they had 2-3 years' experience of tobacco growing, 9.1% had grown tobacco for less than 2 years while 39.4% had more than 4 years of contract farming (Table 3). All interviewed farmers asserted their intention to continue with contract tobacco production. The modal age of experience reported by farmers during interviews was 2-4 years with 51.5% (Table 3). About 18% of the farmers were motivated by the need to acquire training skills in tobacco production. Ideally contracting companies should equip farmers with managerial skills to enable them to plan other activities outside but linked to

contract farming. This is in agreement with Minton (1986), who reported that extension services should be designed to provide learning effects to go beyond production of the contract crop. Results of the study showed the need for marketing services (6.1%) and funds for hiring labour (9.2%). The results also show that contract farming was indispensable in Ward 27 since there were no alternative sources of funding. This agrees with the findings by Wang and Deglad (2014) for developing countries which indicated that contract farming is the only available source of funding to rural farmers as banks demanded collateral security and title deeds which farmers did not have.

Table 3. Period of contract farming and farmers' wishes to continue with contract farming

Period of contract farming (years)	Percent
Less than 2 years	9.1
2-4 years	51.5
More than 4 years	39.4
Total	100.0

The researcher explored the reasons why farmers chose to continue with contract farming and the results revealed the following reasons. Farmers emphasized that they were motivated to continue with contract tobacco production for the cheap acquisition of basic

agricultural inputs (52%), training in tobacco production (21%) while 18% indicated the need to secure markets (Figure 1). Only 9% of the respondents indicated the need for the working capital for hiring field labourers.

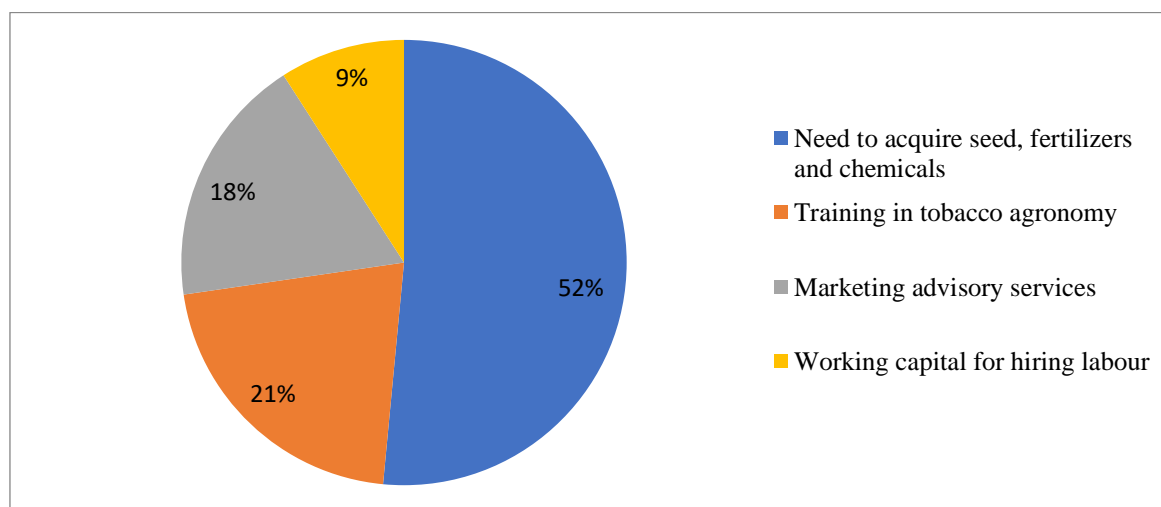


Figure 1. Reasons for continuing with contact farming

Services provided by contracting companies

The study showed the different types of services which were received during the 2018/19 agricultural season and the responses given by the farmers are depicted in Table 5. The results revealed that 66.7% of the tobacco growers in ward 27 received seed, fertilizers, pesticides and herbicides during the 2018/19 agricultural season and 6.1% of them received advisory marketing services from the contracting companies (Table 4). The majority (85%) of tobacco farmers reported that inputs and other services were supplied well on time for the subsequent cropping season. Zimbabwe Leaf Tobacco and Northern Tobacco, in addition to supplying inputs, trained their growers in tobacco production (Table 2). Training was timed with

field operations especially sowing of seed. Only Zimbabwe Leaf Tobacco provided working capital during the peak field operations which demanded additional labour. Some tobacco companies are unique in that they provide funds for hiring labour at certain times of the crop cycle (Kumar, 2006). No tillage services were provided by contracting companies. This implied that companies do not consider the importance of deep ploughing, let alone other soil management techniques like use of organic manures and soil pH moderation. These factors alone could also contribute to low productivity since continued use of inorganic fertilizers could cause soil acidity and pans which significantly reduce plant growth (Sartorius and Kirsten, 2006).

Table 4. Types of services farmers received from contracting companies during the 2018/19 agricultural season

Services provided to farmers	Percent
Seed, fertilizers, herbicides and pesticides	66.7
Training	18.0
Working Capital for hiring labor	9.2
Marketing services	6.1
Total	100.0

All the interviewed tobacco growers reported that tobacco producer price was determined by contracting companies alone. Farmers complained that they were not consulted during the producer price calculations. However, farmers appreciated that they were fairly paid on time for their produce.

Challenges faced by farmers under tobacco contract farming

Fifty five percent of the respondents revealed that the greatest challenge faced by contract tobacco farmers was low producer price. High costs of inputs accounted for 30% while bad weather had 9% and shortage of fire wood 6% (Figure 2). The results denoted that contracting companies do not include farmers in the price determination of tobacco, citing the reason that prices were dictated by fluctuating prices prevailing at the world market at the time of selling (Table 5). These results reflected that contracting companies are monopolizing and manipulating the unfortunate situation of tobacco farmers of lacking resources and funding sources for tobacco production. The high cost of production and uncompetitive producer prices imposed by contracting companies to tobacco farmers renders the credit scheme unviable and unprofitable especially to the farmers. Da Silva and Rankin (2013) posits that the most significant income increases have been generated in those contract schemes in which smallholder farmers gain access to lucrative export markets for labour intensive luxury crops.

Measures to improve the financial viability of contract farming schemes should be monitored

including setting appropriate pricing policies, rewarding risk taking by private companies in new crops and improving the autonomy and accountability of parastatals (Eaton and Shepherd, 2001). These findings contradicted with the study by Glover and Kusterer (1990) in Seke where Selby Enterprises negotiated the selling price of baby corn with farmers before contracting them and renegotiated the prices in the wake of threatening competitors. This company also advised its growers when prices were likely to be highest. In fact it is suspected that some buyers organized themselves in order to steal from companies (Dawes, 2009; Kessides, 2002). In some instances, the price at which the produce is bought might be so low that the farmers are not able to recoup the cost of transport they could have incurred, let alone recovering production costs.

Some payments were made late during floor auction days due to pressure at the auction floors. Some respondents reported that they had to go overnight awaiting payment. They cited inconveniences experienced during sleeping outdoor as well as risks of being conned by Harare men. These results pointed to the need for government to subsidize inputs to reduce production costs, intervene during price determination by companies and decentralize tobacco marketing services to production areas since farmers were having problems during transporting their tobacco to Harare and losing their hard earned cash to connemen. Where feasible project authorities should sign contracts and disburse payments at household level.

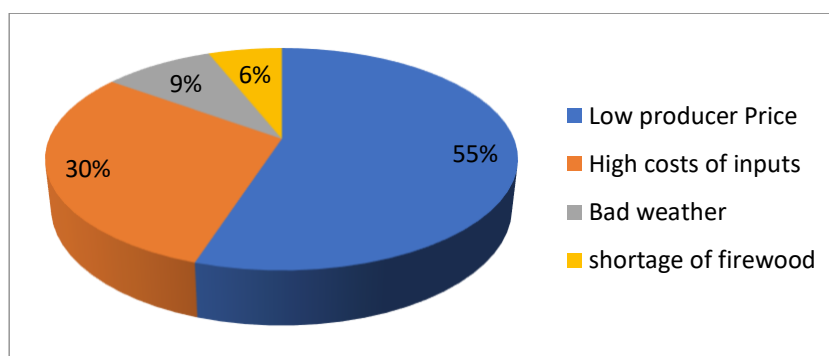


Figure 2. Challenges faced by farmers on contract credit scheme

Challenges faced by contracting companies

The major challenges faced by the contracting tobacco companies ranged from defaulting on loan payment (40%), side marketing (27%), and inputs diversion and selling by farmers (17%) (Figure 3). However, competition among buyers (13%) and yield fraud (3%) were also indicated as challenges faced by contracting companies. Low producer price was

attributed to the exclusion of tobacco farmers during price determination by contracting companies. Contracted farmers sometimes sell or divert fertilizers meant for tobacco production to maize crop which results in low productivity and low income (TIMB, 2011). Company officials argued that the cost of inputs were high since they included transport. This fact was also supported by Da Silva and Rankin (2013) who

noted that the transport costs were built into the producer price such that farmers took it as free service. Tobacco is harvested and cured starting from February. This means that bans, sheds and storerooms of farmers should be intact to avoid losses through tobacco spoilage by the rains. Carlos and Marlo, (2013) highlighted the need for companies to consider funding infrastructure to prevent post-harvest losses especially to beginners. Charcoal availability should be organized for tobacco curing to avoid cutting down of trees (Mutenje and Mango, 2019).

Contracting companies should consider decentralizing buying and processing of tobacco in the production areas to reduce transportation costs to the farmers, increase producer price and lure more farmers into the tobacco industry (IFAD, 2003; Kessides, 2002). The companies would in this way increase raw materials which they need most for processing or exporting. This would resultantly increase their sales income. In a study by Murko (2009), on contract farming in Thailand, Malaysia and Philippines, found out that farmers with very low yields were unable to repay their loan input scheme and when faced with the prospect of

indebtedness they would often choose to sell the output elsewhere. According to respondents, other reasons that cause farmers to side market their produce include late payment by companies, greed and the feeling that companies were profiteering especially when the producer prices offered by contracting companies were lower than those of competing buyers.

While companies blamed farmers for selling inputs and diverting fertilizers meant for tobacco production to maize crop. Tobacco farmers argued that companies should provide farmers with full input scheme including tillage services. Inputs delivered for use on the contract crop are occasionally diverted to food crops depending on the farmers' estimates of relative marginal returns. Several aspects of contract farming impinge on food production and consumption by farmers, their families and employees and other segments of the population (Kurt and Johann, 2006; Singh, 2003). These findings showed that farmers recognized the importance of food and wanted to avoid buying it using funds from the cash crop like tobacco.

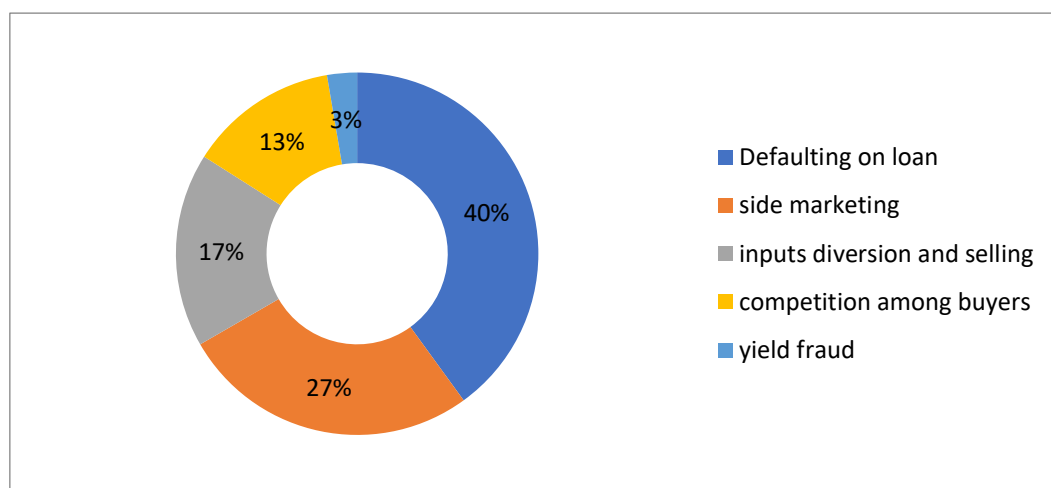


Figure 3. Challenges faced by contracting companies

Challenges of contract farming as given by the Agriculture extension officers and the local leadership

Village heads echoed the problem of felling down of trees for fire wood by tobacco growers (57.1%) while agriculture extension officers were worried with farmers who were contracted yet they had no draught power, enough skills and labour force (28.6%). The councilor noted that the training of farmers is an important factor that would reduce the defaulting of loan payments, side marketing and misappropriation of inputs meant for tobacco production. About 57.1% of these respondents indicated that tobacco farmers' major challenge was shortage of fire wood as farmers could cut down big trees in order to cure their golden leaf. About 26.6% of the interviewees highlighted that some farmers had no draught power, enough skills and labour. Lack of tractors and farming implements can delay land preparation and potential crop yields diminish with late planting. Shortage of labour was also highlighted and this concurs with the findings by Ruttan (2007) who reported that farmers at Mkwasine Sugar Estate

complained about severe labour shortages. The traditional labour pool had dried up as people sought better livelihoods in Mozambique or in informal trading and mining operations. In addition, the inability of contracting companies to wean off capable tobacco farmers may promote dependency syndrome among farmers.

Solutions to challenges faced in contract farming

The inclusion of tobacco farmers during price determination by contracting companies was found to be the great remedy (38%). Training by both Agriculture extension officers and contracting companies accounted for 24% of the respondents and timely supervision of field operations had 24% as imperative solutions for a successful contract farming program (Table 5). Provision of tillage services and working capital were also suggested as contributing factors to the farmers' success by 14% of the respondents. Farmers highlighted that companies should provide tillage services and funds for labour hiring in addition to other agricultural inputs. The respondents wished that the government through the Ministry of Agriculture be involved by providing

irrigation infrastructure, and regulation of producer prices. Key informants from Agriculture extension officers also supported that tillage services should be provided to farmers to enhance planting on time and improve weed management. All stakeholders agreed that all the training services should be done by the Agriculture extension officers in conjunction with contracting companies to eradicate risks and uncertainty of crop failure. This in turn would enable farmers to utilize all the supplied inputs in their fields without diverting or selling some. Farmers can also repay all

their debts and continue with their production of tobacco in mutual understanding with their sponsors (Glover, 1984). Agriculture extension officials, councilor and village heads in ward 27 reported unfair risk sharing between farmers and contracting companies citing that greater risks were apportioned to the farmers. Accordingly, they felt that these farmers should be weaned off from contracting companies and self-manage their production enterprises after certain years of input assistance.

Table 5. Solutions to challenges faced in contract farming

Solutions to challenges	Percent
Training in record keeping and accounting	24
Timely supervision	24
Inclusion of farmers during price determination	38
Companies to provide tillage and working capital to famers	14
Total	100

Conclusions

The study was effective in its assessment on the challenges faced by tobacco farmers in the contract farming scheme. The low producer price, high costs of inputs, bad weather, and shortage of firewood for curing were cited as major challenges in tobacco contract farming. Similarly, contracting companies cited defaulting of loan by farmers, side marketing, diversion of inputs and yield fraud as major challenges in their own assessment to productive tobacco yield. In conclusion, the immediate solutions to these challenges included: training of tobacco farmers in record keeping and accounting, timely supervision and inclusion of farmers during price determination. While tobacco producer prices are not commensurate with production costs because prices are determined by contracting companies without involving the farmers the production risks are shouldered by the tobacco farmers.

Recommendations

Farmers should be educated on financial management skills such as record keeping, labour costs and simple bookkeeping to enable them to assess profitability of their enterprises. These skills help instill financial discipline among farmers and allow them to be more vigilant in avoiding too many overheads. It is further recommended that researches on how large scale tobacco production impact on poverty reduction or prosperity gains be conducted to establish the challenges contracting companies encounter. There is also need to compare and contrast how other farming sectors are attempting to extend support to farmers. Nonetheless,

contracting companies should offer tillage services as well as some funds for hiring labourers.

Compliance with Ethical Standards

Conflict of interest

The authors declared that for this research article, they have no actual, potential or perceived conflict of interest.

Author contribution

The contribution of the authors to the present study is equal. As authors we have read and approved the final manuscript. We have verified that the text, figures and tables are original and that they have not been published before.

Consent for publication

As authors of this manuscript, we have agreed that the paper be published with your journal.

Ethical approval

Ethics committee approval is not required.

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Data availability

Not applicable.

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