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RESEARCH ARTICLE

Enhancing the Public-Private-Community Partnerships in the Banana Value Chain in Mutasa District, Zimbabwe

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ABSTRACT

The paradigm shift from the New Public Administration to the New Public Governance underlines the significance of multi-stakeholder collaborations in attending to complex societal challenges. In this vein, Public-Private-Community Partnerships are a feasible mechanism for enhancing the banana value chain in Mutasa District of Zimbabwe. Bananas are extensively eaten fruits in the world with smallholder farmers playing a vital role in production, particularly in developing nations like Zimbabwe. Yet smallholder farmers' economic returns in the banana value chain are a cause of concern. Thus, this study focuses on enhancing Public-Private-Community Partnerships in the smallholder banana value chain. A concurrent mixed methods research design allowed for both objectivity and detailed analysis. The target population comprised public, private, and community stakeholders in the banana value chain. The multiplicity of stakeholders motivated a mixture of quota, purposive, and snowball sampling techniques to ensure representation. Questionnaires, in-depth interviews, and focus group discussions were the data collection methods. There was descriptive analysis of quantitative data, while qualitative data were analyzed thematically, and related findings were grouped together. Public-Private-Community Partnerships are attractive because they reduce information asymmetry, enhance transparency, ensure fairness in pricing, facilitate risk sharing, increase productivity, and enhance value addition. Public-Private-Community Partnerships are not "magic bullets", necessitating attention to their potential deficits, which include power imbalances, conflicts of interest among partners,

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and challenges associated with ensuring active participation by diverse stakeholder groups. Pathways for strengthening Public-Private-Community Partnerships include consensus building, clear definition of partners' roles, fair sharing of risks and benefits, monitoring and evaluation, selection of competent actors, and farmer capacity building. Effective Public-Private-Community Partnerships facilitate active participation among the public, private, and community actors along the entire value chain.

Keywords: Banana Value Chain; Collaboration; Public-Private-Community Partnerships; Smallholder Farmers

1. Introduction

The 21st century paradigmatic shift from New Public Management (NPM) to New Public Governance (NPG) emphasizes citizen and stakeholder participation in the development processes of nation-states [1]. This study examines the relevance of PPCPs in strengthening the smallholder banana value chain in Zimbabwe, with a particular focus on Mutasa District. The study also examines the potential deficits of PPCPs in the smallholder banana value chain. Focus is also on the pathways for strengthening PPCPs in the smallholder banana value chain in Mutasa District.

Public-Private Community Partnerships (PPCPs) are joint and collaborative relationships between the government, private sector, and the farmers (community) that aim at attaining common objectives [2]. In the agricultural sector, the PPCPs can also be referred to as public-private-producer partnerships (4Ps). In this study, the PPCPs entail a system of linkages, connections, and regulations that bring the government, the private sector, and the farmers together so that all the stakeholders realize mutual benefits. A value chain (VC) comprises the entire set of actions required to bring a product to customers, including production, processing, and delivery. These actions take place in a sequential order and are carried out by various players such as input providers, farmers, processors, and customers [3]. Value chains are aided by a variety of technical, business, and financial service providers. Each link in the chain contributes to the product's value [4].

Bananas are one of the most extensively eaten fruits in the world, with worldwide output reaching over 114 million tonnes in 2023 [5]. Smallholder farmers play a vital role in banana production, particularly in developing nations like Zimbabwe [6]. However, smallholder farmers' economic returns in the banana value chain are a cause of concern. Despite many stakeholder interventions, economically empowering smallholder banana farmers remains a challenge throughout the world, notably in Africa [7] and Zimbabwe [8]. In addition, smallholder farmers continue to be monopolized by private sector players like processors, retailers, wholesalers and traders. These players organize smallholder banana producers into various contractual arrangements that include contract farming and out-grower schemes [9].

In the Zimbabwean context, smallholder banana farmers in Mutasa District remain impoverished living on less than US$1 per day a figure that rose to 37% in 2022 [10] from 12% in 2015 [11]. Smallholder farmers continue to be marginalized along the value chain with limited opportunities for increasing their income margins from pre-production to marketing. This implies that the existing value chains are the source of the problem at hand, which is global in nature [12]. Despite these issues, the banana sector in Africa and Zimbabwe remains an essential source of income and food security for millions of smallholder growers [13]. Ongoing efforts to support these farmers, through greater access to inputs, technologies, and markets, as well as climate change adaptation techniques, might help to boost the resilience of Africa's banana value chains [14].

In light of the challenges faced by the smallholder banana farmers, PPCPs could be answer. The notion of PPCPs is central to the Food and Agriculture Organization's (FAO's) interventions in agriculture [15]. The FAO identified multi-stakeholder partnerships as one of the key drivers of its support to the 2030 Agenda [16]. There is a growing recognition that complex, multi-dimensional and cross-sectoral issues, such as food security require cross-sectoral and holistic approaches, pooling together the resources, knowledge and expertise of

different stakeholders[17]. At the global, regional, and national levels, the FAO builds partnerships to support enabling environments for policies and programmes to achieve transformative change on food security and nutrition and sustainable agriculture. The FAO works to strengthen the capacities of stakeholders and mobilize resources in order to accelerate efforts aimed at climate change mitigation, rural transformation, ending poverty, and hunger[18].

Moreover, multi-stakeholder collaboration can be viewed as a form of governance in which different parts of society attempt to work together, undertake collective decisions and apply collective actions that can have an impact at one or more scales[19]. These collaborations typically consist of a mix of representatives from government, civil society, and the private sector, at one scale or across multiple scales. Therefore, effective PPCP frameworks ought to enhance active participation between the governmental actors, private players, and the farmers. The intention of sound collaborative arrangements is to transcend power differentials and strengthen the voice of those more marginalized members of society to enhance inclusion, shared ownership and increase the chances of positive change[20]. Additional key functions of multi-stakeholder collaboration include integrating diverse perspectives, experiences and expertise, linking informal and formal governance and decision-making, and enhancing trust, mutual benefits and shared power among partners. One of the possible challenges in Zimbabwe's agricultural sector could be that of mistrust among the various actors. Accordingly, PPCPs could help to cultivate trust, mutual benefits, and ultimately enhance productivity[21].

The Governance Network Theory (GNT) informed this study. The GNT emerged in the 2000s and was brought to attention by Osborne in 2006 and in 2010[22]. The GNT emphasizes the resolution of complex problems through a multi-stakeholder approach[23, 24]. Operating in isolation stakeholders in the banana value chain are unable to tackle the complex societal challenges as they lack the resources or problem-solving capacities to do so. The complexity of the contemporary challenges and interdependencies between actors result in intensive interactions between actors[25]. As a result, governance networks emerge, which entail interrelated systems of enduring patterns of social relations between actors involved in dealing with a problem[26]. Likewise, a framework for enhancing PPCPs in the banana value chain in could be best possible through multi-stakeholder collaboration.

2. Materials and Methods

Mutasa District is located in Manicaland Province, also referred to as the "eastern highlands". Bananas are a significant crop in Mutasa District, which not only ensures food and nutrition security, but enhances income security. Despite being the producers, smallholder banana farmers in Mutasa District of Zimbabwe do not have much voice in the value chain and are mere "price takers". The farmers acquire inputs at prices determined by the suppliers and sell produce at values determined by the buyers. The smallholder banana farmers are weakened by the power asymmetries in the value chain and the situation is rather complex. Therefore, a comprehensive examination of PPCPs as pathways for strengthening the banana value chain in Mutasa District of Zimbabwe was not possible without reference to the concurrent mixed methods research. A single method seemed inadequate to provide a complete examination of the significance of PPCPs as pathways for strengthening the banana value chain in Mutasa District.

The target population comprised several stakeholders, including input suppliers (registered contractors), heads of smallholder farmer cooperatives, banana distributors, banana processors, the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD), and the Agricultural Marketing Authority (AMA). The Mutasa Rural District Council, non-governmental organizations (NGOs), financial institutions, Global Good Agricultural Practices (GGAP) certifiers, and Zimtrade were also part of the population.

The multiplicity of stakeholders in the banana value chain called for the use of multiple sampling techniques to ensure representation. In this vein, the research used a mixture of quota, purposive, and snowball sampling techniques. First, the study ensured representation from all the stakeholders in the banana value chain, entailing the use of quota sampling. Second, pur-

posive sampling was used to select the knowledgeable resource persons within the stakeholder entities. Third, snowball or chain sampling was also used to identify some of the stakeholders, for instance, AMA provided the database of registered contractors or private companies that engage in partnerships with the farmers. In addition, the Agricultural and Rural Development Advisory Officers (MLAFWRD) were instrumental in providing data pertaining to the farmers with a "high potential for banana production".

The study used questionnaires, in-depth interviews and focus group discussions to collect data. The design of the data collection tools aligned with the three specific research objectives. Closed questions were used, as well as a five-point Likert-type scale ranging from "Strongly Disagree" (code 1), "Disagree" (code 2), "Unsure" (code 3), "Agree" (code 4), and "Strongly Agree" (code 5). The study administered 150 questionnaires and there were responses from 112 individuals, indicating a response rate of 74.67 percent. In addition, 12 in-depth interviews complemented the data from the questionnaires. Data from the banana farmers were collected through four focus group discussions (FGDs) conducted in different administrative wards.

Quantitative data were captured on the Statistical Package for Social Sciences (SPSS), Version 25 spreadsheet. Descriptive and inferential statistics were used to analyze the findings, with computations of the mean score, standard deviation, and analysis of variance (ANOVA). A flexible model was adopted for analyzing qualitative data, including basic analysis during data collection (interviews and FGDs). Data were then analyzed thematically, and related findings were grouped together. The study respected ethical principles of informed consent, voluntary participation, freedom of withdrawal, and confidentiality. In addition, the principle of trustworthiness was upheld during the data collection process.

3. Results

The study presents results in three themes. First, there is a presentation of findings on the relevance of PPCPs in the smallholder banana value chain. Second, there is a presentation of findings on the potential deficits of PPCPs in the smallholder banana value chain. The possible pathways for strengthening PPCPs in the smallholder banana value chains wind up the findings. However, initially the study presents demographics of respondents and participants.

3.1. Demographics of Respondents and Participants

An examination of PPCPs in the banana value chain in Mutasa district is not possible without interaction with multiple actors. Questionnaires, interviews, and focus group discussions were used to collect data from multi-stakeholders.

3.1.1. Profile of Questionnaire Respondents

This section presents the demographics of respondents focusing on their gender, age, occupation and level of education. **Table 1** presents the demographics of respondents.

The gender breakdown reveals a slight male majority among respondents, with 55.4% being men and 44.6% being women. This observation suggests the dominant gender dynamics in the agricultural and related industries in Zimbabwe, where males tend to hold significant roles in farming and economic operations. However, the roughly same figures suggest fair and equal representation. In addition, irrespective of gender disparity, all participants from various gender groups had an amazing understanding of the topic. The operation of governance networks in the banana value chain is influenced by gender dynamics. By advocating for gender equality and guaranteeing a wide range of individuals are involved, those involved may increase cooperation, confidence, and decision-making, ultimately resulting in efficient management and better results for the entire process.

The age cohort ranging from 38 to 47 years old has the largest proportion of respondents, with 48.2% of the total. These findings indicate that middle-aged individuals have a significant impact on the banana value chain, most likely because of their vast knowledge and involvement in agricultural practices and decision-making processes. The age group between 18 and 27 years has

Table 1. Demographic profile of respondents.

Demographic Characteristic		Frequency	Percentage
Gender	Male	62	55.4
	Female	50	44.6
	Total	**112**	**100.0**
Age	18–27	8	7.1
	28–37	20	17.9
	38–47	54	48.2
	48–57	20	17.9
	58 and above	10	8.9
	Total	**112**	**100.0**
Occupation	Contractor	6	5.4
	Farmer/Cooperative member	44	39.3
	Distributor	12	10.7
	MLAFWRD employee	14	12.5
	AMA employee	4	3.6
	NGO employee	12	10.7
	Financial Institution employee	6	5.4
	GGAP certifier	4	3.6
	Zimtrade employee	4	3.6
	Banana Processor employee	6	5.4
	Total	**112**	**100.0**
Level of education	No education	12	10.7
	Primary level	22	19.6
	Secondary level	32	28.6
	Tertiary level	46	41.1
	Total	**112**	**100.0**

the smallest percentage, at only 7.1%. This suggests a potential lack of engagement of young individuals in the agriculture sector, which might hinder the adoption of innovative ideas, technology, and progress. The age groups of 48–57 years and 58 years and older collectively make up 17.8% of the respondents. This implies that individuals of an older age group are also engaging in the activity, potentially contributing their expertise and acquired knowledge. The age group of 28–37 years represents 17.9% of the respondents, suggesting a modest level of engagement among those in their early middle adulthood. The high proportion of individuals aged 38–47 suggests that the participants have considerable knowledge and experience for the partnership discussions. This might be beneficial for acquiring practical knowledge and attaining effective solutions throughout the whole process of producing and distributing bananas. The lack of adequate representation of individuals between the ages of 18 and 27 in the agricultural sector emphasizes the need for targeted initiatives to engage younger people in this industry. Interventions that promote entrepreneurship, incentivize the use of technology, and offer vocational training can attract a larger pool of young people to the business. The age distribution of the respondents reveals a significant proportion of individuals in the middle age category, while there is a conspicuous absence of participation from the younger demographic. The interplay of age dynamics is essential in influencing the formation and structure of governance networks throughout the banana value chain. By promoting collaboration across different generations and actively involving younger stakeholders, these networks can improve their efficiency, resulting in the development of more creative and environmentally friendly farming methods. Addressing the issue of age representation can eventually enhance governance and improve outcomes for all actors in the value chain.

The distribution of respondents' occupation re-

veals a notable representation of Farmers/Cooperative Members, constituting 39.3% of the whole sample. This underscores their pivotal role in the banana supply chain. MLAFWRD workers strictly follow a 12.5% increase, indicating government involvement in overseeing agriculture. The distribution of distributors and NGO staff is equal, with each group comprising 10.7% of the total. This underscores the importance of logistics and community support in this particular business. Contractors, personnel of financial institutions, and banana processors collectively represent 5.4% to 6% of the whole figure, showing their noteworthy yet humble role in the advancement and handling of operations. The minute percentage of AMA employees, GGAP certifiers, and Zimtrade staff (each constituting 3.6%) suggests potential prospects for increased participation. In general, the data emphasizes the presence of several stakeholders who contribute to improving the banana value chain. The presence of several occupations along the banana value chain highlights the significance of cooperative governance networks. By using the distinct capabilities and viewpoints of different stakeholders, these networks may improve decision-making, facilitate the exchange of resources, and promote overall efficiency in tackling difficulties in the agriculture industry. Establishing robust connections across various professions will be essential for attaining lasting results in the banana value chain.

The data on education distribution among respondents reveals a notable inclination towards higher degrees of education, as 41.1% of them have successfully completed postsecondary education. This indicates the presence of a competent and proficient team that has the ability to make substantial contributions to the banana value chain. 28.6% of those with secondary education possess a significant basis for engaging actively. Conversely, 19.6% of the respondents have only had basic education, which might limit their ability to participate in complex farming methods. A significant proportion of the respondents, up to 10.7%, of those who do not have formal education may experience challenges when confronted with industrial issues. To summarize, the findings suggest that while the majority of individuals possess a high level of education, it is crucial to actively support and engage individuals with lower educational attainment in order to foster a more inclusive value chain. The educational attainment of respondents has a substantial influence on their capacity to participate in governance networks associated with the banana value chain. By promoting the involvement of all persons and providing education and training to those with less formal education, stakeholders may increase cooperation and achieve better results in governance, eventually reinforcing the entire process.

3.1.2. Profile of Interview Participants

The study collected qualitative data using 12 in-depth interviews. There was selection of participants in key institutions involved in the banana value chain in Zimbabwe. **Table 2** shows the institutional and gender profile of the participants.

Table 2. Institutional and gender profile of interview participants.

Interviewee Label	Institution	Gender
Interviewee 1	Contractor	Male
Interviewee 2	MLAFWRD employee	Female
Interviewee 3	Financial institution employee	Male
Interviewee 4	MLAFWRD employee	Male
Interviewee 5	AMA employee	Female
Interviewee 6	NGO employee	Female
Interviewee 7	MLAFWRD employee	Male
Interviewee 8	GGAP certifier	Male
Interviewee 9	Zimtrade employee	Male
Interviewee 10	Banana Processor employee	Female
Interviewee 11	MLAFWRD employee	Female
Interviewee 12	MLAFWRD employee	Female

Table 3 shows that there was an equal representation of male and female interview participants. In addition, **Table 3** shows that five out of the 12 interviewees were from the MLAFWRD, which has an organisational structure devolved down to the Ward level.

3.1.3. Profile of Focus Group Discussion Participants

The study conducted four focus group discussions with "champion" or leading farmers. Four administrative wards were identified with the guidance of MLAFWRD employees, who work with farmers on a daily basis. **Table 3** shows the ward-by-ward profile of the FGD participants.

In all the FGDs, the main concern was on ensuring gender balance, as there were efforts to identify women

Table 3. Ward-by-ward profile of the FGD participants.

FGD Label	Number of Participants	Number of Male Participants	Number of Female Participants
Ward A	11	5	6
Ward B	9	4	5
Ward C	10	4	6
Ward D	11	6	5
Total	**41**	**19**	**22**

champion farmers. Therefore, out of 41 participants who took part in the FGDs, 19 (50.20%) were males while 22 (49.80%) were females. These findings show that women play an important role in the smallholder banana value chain in Zimbabwe, and it is important to ensure that they are afforded adequate recognition and support.

3.2. The Case for PPCPs in the Smallholder Banana Value Chain

The current and anticipated food shortages in Zimbabwe necessitate significant investments in the value chains. The government lacks the necessary resources to provide adequate finance for the value chains of smallholder banana production. Therefore, there is a compelling argument for the adoption of PPCPs. **Table 4** illustrates the importance of PPCPs in enhancing the resilience of small-scale banana supply chains.

Table 4 shows that PPCPs have a considerable impact in several aspects. The mean scores, ranging from 4.24 to 4.47, provide ample evidence to support this claim. The next sub-sections provide detailed explanations of the relevance of PPCPs in the smallholder banana value chain.

3.2.1. PPCPs Reduce Information Asymmetry

According to **Table 4**, the mean score on the variable is 4.11086, with a standard deviation of 0.94075. The result suggests a strong positive perception, that PPCPs can increase synergistic advantages by facilitating the sharing of ideas between the government, private sector, and farmers. This helps reduce information asymmetry, which is a key benefit of the multi-stakeholder partnerships. One of the interview participants argued that information asymmetries result in unfair practices that disadvantage the farmers. During focus group discussions, the farmers insisted that they lacked information about best production methods, best post-harvest management procedures and how to access profitable markets. In addition, focus group discussions also revealed that actors were working in silos and often had conflicting interests. Thus, PPCPs are essential for ensuring symmetrical information.

3.2.2. PPCPs Could Enhance Transparency and Fairness in Pricing of Inputs and Produce

Table 4 shows that the mean score on the variable is 4.4762 and the standard deviation is 0.96873. The finding indicates a strong positive perception that PPCPs can enhance transparency and fairness in the pricing of agricultural inputs and produce. In the same vein, during one of the FGDs, almost all the farmers pointed out that it was necessary to ensure transparency and fairness of the prices through PPCPs. In addition, interview participants pointed out that that there were price fluctuations, which were affecting farmers' planning and profit margins.

3.2.3. There Is Risk Sharing in the PPCPs

According to **Table 4**, the mean score on risk sharing is 4.11086 with a standard deviation of 0.91446. The results indicate that respondents strongly agreed that there is risk sharing in PPCPs. Findings from in-depth interviews and FGDs corroborated the quantitative data and almost all the participants pointed out that working through partnerships helps to share risks, which are prevalent in the Zimbabwean agricultural sector. Furthermore, a representative of a financial institution claims that because PPCPs lower risks, it will be simpler for financial institutions to provide loans to smallholder banana growers.

Table 4. Relevance of PPCPs in the smallholder banana value chain.

Relevance	N	Mean Score	Std. Deviation
PPCPs reduce information asymmetry	112	4.11086	0.94075
PPCPs could enhance transparency and fairness in pricing of inputs and produce	112	4.4762	0.96873
There is risk sharing in the PPCPs	112	4.11086	0.91446
PPCPs could enhance farm productivity	112	4.4762	0.80359
PPCPs enhance value addition of bananas in the farming communities	112	4.4762	0.92145

3.2.4. PPCPs Could Enhance Farm Productivity

The mean score on whether PPCPs enhance farm productivity is 4.4762 and the standard deviation is 0.80359. The respondents strongly believe that PPCPs can enhance farm productivity, which is a crucial outcome for agricultural development. FGDs revealed that the farmers' voices remain marginalized throughout the value chain, comprising productivity, and PPCPs are feasible options. Almost all of the interview participants pointed out that PPCPs would enhance information exchange, facilitate access to inputs, provide market access chances, increase production efficiency, and lead to improved sales margins. One of the head farmers' cooperatives who participated in the study argued, "Farmers require PPCPs to improve their capability and strengthen the private sector's cost competitiveness in agricultural marketing."

3.2.5. PPCPs Enhance Value Addition of Bananas

Table 4 shows that the mean score on the variable is 4.4762 and the standard deviation is 0.92145. PPCPs enhance the value addition of bananas, which is important for improving the performance of agricultural value chains. One of the Agricultural and Rural Development Advisory officers opined that on-farm value addition helps to reduce post-harvest losses (PHLs), especially during the peak of banana harvesting seasons. The absence of value addition in Mutasa District results in bananas rotting on the farms when markets are flooded. Additionally, processes like drying bananas help to increase prices and farmers' income. Dried bananas can also be further processed into flour, which is highly nutritious compared to maize meal, which is a staple food in Zimbabwe.

3.3. Relevance of PPCPs in Enhancing Value Chain Performance Indicators

Assessing the influence of PPCPs on the value chain performance indicators is essential for sound decision-making. **Table 5** presents the findings on the influence of PPCPs on efficiency, quality control, sustainability, and market responsiveness.

Table 5. Relevance of PPCPs in enhancing value chain performance indicators.

Performance Indicator	N	Mean Score	Std. Deviation
Efficiency	112	4.2455	0.76575
Quality control	112	4.4356	0.78965
Sustainability	112	4.4566	0.94535
Market responsiveness	112	4.6788	0.76489

3.3.1. Efficiency

The mean score for efficiency is 4.2455, indicating a generally positive perception among respondents regarding the effectiveness of PPCPs in enhancing operational efficiency within the banana value chain. The standard deviation of 0.76575 suggests that responses varied moderately, reflecting a mix of opinions on how well PPCPs streamline processes. This score highlights that while there is recognition of improvements, there may still be areas for enhancement. During interviews, the farmers indicated that they were affected by inefficiencies in production, post-harvest management and marketing. This was mainly emanating from resource limitations and lack of knowledge. Effective communication and resource sharing among stakeholders can further boost efficiency. Overall, the results suggest that PPCPs play a valuable role in optimizing operations.

3.3.2. Quality Control

With a mean score of 4.4356, quality control is perceived positively, indicating that respondents believe PPCPs significantly contribute to maintaining high standards in the banana value chain. The standard devia-

tion of 0.78965 shows a moderate level of agreement among participants, suggesting that most recognize the importance of collaborative efforts in ensuring quality. This perception underscores the role of PPCPs in reducing variability and enhancing product consistency. During focus group discussions, the farmers pointed out that some of the banana produce was not meeting market requirements due to production and post-harvest management anomalies. By facilitating knowledge sharing about best practices, PPCPs can further strengthen quality control measures. Ultimately, these findings emphasize the importance of collaborative frameworks in achieving quality assurance.

3.3.3. Sustainability

The mean score for sustainability is 4.4566, indicating a strong belief among respondents that PPCPs positively influence sustainable practices in the banana value chain. The standard deviation of 0.94535 suggests a wider range of views, reflecting varying degrees of commitment to sustainability among stakeholders. This score highlights the growing recognition of the need for environmentally friendly practices and social responsibility. PPCPs can enhance sustainability by promoting shared goals and practices that benefit both the environment and the community. During focus group discussions, it was reported that banana farming was a threat to environmental sustainability as some farmers were utilizing wetlands. The results point to a significant opportunity for further collaboration in sustainable development initiatives.

3.3.4. Market Responsiveness

Market responsiveness received the highest mean score of 4.6788, suggesting that respondents view PPCPs as highly effective in adapting to consumer needs and market trends. The standard deviation of 0.76489 indicates relatively consistent support for this viewpoint among participants. This high score underscores the critical role of collaboration in quickly responding to market demands and changes. PPCPs facilitate the sharing of insights and feedback between stakeholders, enabling faster adjustments to strategies. Almost all of the interview participants pointed out that the farmers lacked profitable market opportunities. Overall, the results highlight the importance of PPCPs in fostering agility and responsiveness within the banana value chain, a view supported by **Table 6**.

The ANOVA results reveal significant relationships between PPCPs and various qualities of the banana value chain. Efficiency shows a statistically significant difference ($p = 0.047$) across groups, indicating that PPCPs positively influence efficiency. The linearity test is also significant ($p = 0.004$), suggesting a clear and direct relationship. For quality control, the significance level ($p = 0.022$) indicates that PPCPs have a notable impact on quality. The linearity is confirmed as significant ($p = 0.018$), although the deviation from linearity is not significant ($p = 0.113$), suggesting a consistent relationship. Sustainability exhibits significant differences ($p = 0.017$) related to PPCPs, with a strong linear relationship ($p = 0.018$). The slight deviation from linearity ($p = 0.086$) indicates potential complexities in this relationship. Market Responsiveness shows the strongest association, with an F value of 4.463 and a highly significant p-value (0.002). The significant deviation from linearity ($p = 0.001$) suggests this quality may be influenced by factors beyond a straightforward linear relationship.

The ANOVA results indicate that PPCPs significantly enhance efficiency, quality control, sustainability, and market responsiveness in the banana value chain, aligning well with governance network theory. The governance network theory emphasizes the importance of collaboration among diverse stakeholders, such as government, the private sector, and farmers, to achieve shared goals. The significant relationships found suggest that effective governance networks facilitate information sharing and reduce asymmetries, leading to improved outcomes. Additionally, the complexity observed in market responsiveness highlights the dynamic interactions within these networks, reinforcing the need for adaptive governance structures. Ultimately, these findings underscore the critical role of collaborative governance in enhancing value chain performance.

3.4. Potential Challenges of PPCPs in the Smallholder Banana Value Chain

PPCPs might exhibit troublesome characteristics, and it is crucial to take into account their adverse im-

Table 6. ANOVA table: Influence of PPCPs on value chain performance indicators.

Value Chain Performance Indicators			Sum of Squares	df	Mean Square	F	Sig.
Efficiency	Between Groups	(Combined)	8.368	4	2.092	2.496	0.047
		Linearity	7.266	1	7.266	8.669	0.004
		Deviation from Linearity	1.103	3	0.368	0.439	0.726
	Within Groups		88.004	105	0.838		
	Total		96.373	109			
Quality control	Between Groups	(Combined)	11.565	4	2.891	2.982	0.022
		Linearity	5.645	1	5.645	5.823	0.018
		Deviation from Linearity	5.919	3	1.973	2.035	0.113
	Within Groups		101.790	105	0.969		
	Total		113.355	109			
Sustainability	Between Groups	(Combined)	11.907	4	2.977	3.151	0.017
		Linearity	5.506	1	5.506	5.828	0.018
		Deviation from Linearity	6.401	3	2.134	2.259	0.086
	Within Groups		99.193	105	0.945		
	Total		111.100	109			
Market responsiveness	Between Groups	(Combined)	6.713	4	1.678	4.463	0.002
		Linearity	0.453	1	0.453	1.205	0.275
		Deviation from Linearity	6.259	3	2.086	5.549	0.001
	Within Groups		39.478	105	0.376		
	Total		46.191	109			

pacts. Multi-stakeholder partnerships are subject to limits and cannot always be relied upon as a universal answer in every circumstance. **Table 7** presents the potential challenges of PPCPs.

Table 7 shows that PPCPs have several limitations, such as the challenges of managing power imbalances, potential conflicts of interest among partners, difficulties in ensuring active participation from diverse stakeholder groups, and the potential unavailability of farmers' active involvement in PPCPs. The next paragraphs provide further details on the highlighted difficulties.

3.4.1. Complexities Associated with Balancing Power Asymmetries among the Partners

The survey results suggest that respondents perceive several potential challenges associated with the implementation of PPCPs in the banana value chain. One key concern is the potential for complexities in balancing power asymmetries among the partners (mean 4.11086 and standard deviation 0.80070). One of the interview participants argued that partners do not have the same level of power and influence, a factor that could compromise the success of PPCPs.

3.4.2. Conflict of Interest may Arise Among the Partners

A significant challenge identified by the respondents is the risk of conflict of interest arising among the partners (mean 4.3810 and standard deviation 0.88214). The diverse goals and priorities of the government, private sector, and community stakeholders involved in PPCPs can lead to tensions and competing interests, which require careful management.

3.4.3. Active Participation of Diverse Stakeholder Groups is a Challenge

Table 7 shows that ensuring the active participation of multiple and diverse stakeholder groups is perceived as a considerable challenge (mean 4.2857 and standard deviation 0.94445). When a partnership involves many actors, a few dominant partners could compromise active participation. Therefore, attention ought to be given to ensuring equal and active participation by all the actors.

3.4.4. Active Participation by the Farmers in the PPCPs may not be Possible

The farmers are usually the weak partners in financing agreements. According to **Table 7**, the respon-

Table 7. Potential challenges of PPCPs in the smallholder banana value chain.

Challenge	N	Mean Score	Std. Deviation
Complexities associated with balancing power asymmetries	112	4.11086	0.80070
Conflict of interest may arise among the partners	112	4.3810	0.88214
Participation of diverse stakeholder groups is a challenge	112	4.2857	0.94445
Participation by the farmers in the PPCPs not possible	112	4.3571	0.87851

dents express concerns about the feasibility of active participation by farmers in PPCPs (mean 4.3571 and standard deviation 0.87851). During group discussions, the participants pointed out that past financing arrangements have failed because of the absence of active farmer participation.

3.5. Pathways for Strengthening PPCPs in the Smallholder Banana Value Chain

The fundamental question posed in this study is, "what are the alternatives for augmenting the efficacy of PPCPs in the smallholder banana value chain in Mutasa District?" **Table 8** depicts the various strategies for improving the effectiveness of PPCPs in the small-scale banana supply chains in Zimbabwe. The subsequent paragraphs provide further details on these foundational elements.

According to **Table 8**, six possible pathways could strengthen PPCPs in the smallholder banana value chain. There is a need for consensus building, clarity pertaining to the partners' roles, fair sharing of risks and benefits, sound monitoring and evaluation, proper selection of partners, and farmer capacity building.

3.5.1. Consensus Building is Paramount

One of the primary pathways that the respondents had a strong agreement on is the need for consensus among the partners. According to **Table 8**, there was a strong agreement that the partners in the PPCPs should have a common position regarding the problem being faced (mean 4.4762, standard deviation 0.80359). Consensus among the partners helps to limit information and power asymmetries. The partners ought to have a common position regarding the problem being faced and one of the interview participants argues that this entails that all the stakeholders deploy their energies towards one goal.

3.5.2. Clear Definition of the Roles of Partners along the Banana Value Chain

According to **Table 8**, the respondents strongly agreed with the assertion that a clear definition of the roles of partners along the banana value chain is very important (mean 4.5952 and standard deviation 0.58683). One of the interview participants pointed out that clarity of partners' roles helps to ensure that all the actors conduct their duties as expected. The government or public sector entities ought to play a regulatory role, and should avoid direct financing. Because of the notion that 'what belongs to the government belongs to nobody', farmers can develop a culture of laxity and become reluctant to repay the loans. Almost all the interview participants opined that the private sector also has a role to play, which is to ensure timely provision and adequacy of inputs at fair pricing. The non-governmental organizations should complement government efforts, especially in the area of farmer capacity building. Non-governmental organizations should refrain from giving "free handouts" or free inputs because these create a dependency syndrome. The farmers' roles include seeking for and gaining knowledge about good agricultural practices, working together as "farming communities", and respecting contractual obligations.

3.5.3. Fair Sharing of Risks and Benefits along the Banana Value Chain Is Essential

The survey results also indicate that the fair sharing of risks and benefits along the banana value chain is essential for the strengthening of PPCPs (mean 4.4048, standard deviation 0.82815). Effective risk and benefit sharing mechanisms can help to ensure that all partners, including smallholder farmers, are motivated to become active participants in the implementation process, knowing that there is no exploitation. Fairness will help to

Table 8. Pathways for strengthening PPCPs in the smallholder banana value chain.

Pathway	N	Mean Score	Std. Deviation
Consensus building is paramount	112	4.4762	0.80359
Clear definition of partners' roles	112	4.5952	0.58683
Fair sharing of risks and benefits	112	4.4048	0.82815
Monitoring and evaluation of PPCPs is essential	112	4.5000	0.74080
Proper selection of competent actors	112	4.5238	0.80359
Farmer capacity building	112	4.6190	0.53885

cultivate trust, which is essential for the sustenance of PPCPs. During focus group discussions, the farmers argued that they were exposed to many risks due to the non-use of insurance and contracts that were unfavorable to them.

3.5.4. Monitoring and Evaluation of PPCPs Is Essential

Table 8 shows that the respondents strongly agreed with the view that monitoring and evaluation of PPCPs is essential (mean 4.5000, standard deviation 0.74080). Monitoring and evaluation help to track progress, identify successes and problematic issues, which improves decision-making. It is essential to track the extent of farmer participation in the PPCPs, the changes in productivity, and livelihoods transformation.

3.5.5. There Is a Need for Proper Selection of Competent Actors in the Banana Value Chain

Another key pathway for strengthening PPCPs in the smallholder banana value chain is the proper selection of competent actors (mean 4.5238, standard deviation 0.80359). Effective partner selection can help to ensure that the partnership has the necessary capabilities to address the challenges and achieve the desired outcomes.

3.5.6. Farmer Capacity to Have Voice and Actively Participate in the Banana Value Chain

The survey results highlight the need for enhancing the capacity of farmers to have a voice and actively participate in the banana value chain (mean 4.6190, standard deviation 0.53885). Farmer capacity building helps in increasing productivity, meeting the quality specifications, and building their confidence, giving a voice in the PPCPs. Almost all of the interview participants pointed out that farmers were continuously being manipulated along the value chain as they lacked the bargaining power. Interviewees emphasized the need for cooperatives in guarding against risks.

4. Discussion

The food and nutrition insecurity challenges in Zimbabwe call for sound investments in the value chains. The government lacks the necessary resources to avail adequate finance to the smallholder banana farmers. The private sector has a profit maximization motive, while the smallholder farmers lack the capacity to self-finance. Therefore, there is a compelling argument for the adoption of PPCPs, which enhance transparency and fairness in the pricing of agricultural inputs and produce. This argument aligns with the literature, which suggests that PPCPs can help address issues of market power and information asymmetry [27], leading to more transparent and equitable pricing mechanisms for farmers [28].

In addition, there is risk sharing in the PPCPs. The literature supports this finding, as PPCPs are often designed to distribute risks and responsibilities among the government, private sector, and community stakeholders, leading to more sustainable and resilient agricultural systems [29]. More so, literature suggests that well-designed PPCPs can indeed improve farm productivity through better access to inputs, technology, and markets, as well as improved coordination and risk management [30]. The study results and the supporting literature indicate that PPCPs have the potential to bring significant benefits to the agricultural sector, including increased synergistic advantages, enhanced transparency and fairness, risk sharing, and improved farm productivity [31].

Moreover, PPCPs enhance the value addition of bananas, which is essential for reducing post-harvest losses, preservation, and increasing farmers' income. Enhancing food and nutrition security, which remains a global complexity [32] is paramount. Bananas are the fourth most important staple crop worldwide and are essential to maintaining food and nutritional security [33]. In Zimbabwe, there is a huge prospect for banana exports if massive investment could be deployed in sustainable production and value addition. Adding value to products makes it possible for the farmers to reach high-value markets, if they are able to employ sound marketing strategies. Innovations, like drying of produce can also be adopted by the farmers.

Value addition ought to be intensified as it also helps to reduce post-harvest losses [34]. Bananas have a high potential for value addition, especially in producing products, such as banana chips, banana flour, banana wine, and banana puree. PPCPs have greater impact on efficiency, quality control, sustainability and market responsiveness. Strengthening such local value chains for bananas thus allows a greater number of people to participate, especially in rural areas. For instance, in the horticulture sector in Kenya, collaborative partnerships between government agencies and local farmers have led to improved access to markets and better training programs on sustainable practices. Similarly, in the banana value chain in Ecuador, public-private partnerships have facilitated the sharing of best practices and innovations, resulting in increased productivity and quality control. These examples illustrate how effective collaboration can reduce information asymmetry and enhance performance. By integrating such case studies, stakeholders can gain practical insights into the strategies and benefits of PPCPs, fostering a better understanding of their potential impact in the banana sector [35].

In addition, the Governance Network Theory emphasizes the importance of diverse stakeholder collaboration for achieving common goals. These examples illustrate how such networks can reduce information asymmetry, fostering trust and shared objectives among participants. By integrating case studies, stakeholders can gain practical insights into the effective structures and processes needed for successful PPCPs. This understanding can help guide the establishment of governance frameworks that promote adaptability and responsiveness in the banana sector, ultimately enhancing value chain performance.

Despite their benefits, PPCPs are not "magic bullets" and it is crucial to take into account their adverse impacts. The literature supports this argument, as PPCPs often involve stakeholders with varying levels of resources, influence, and bargaining power, which can lead to difficulties in ensuring equitable decision-making and benefit-sharing. More so, effective stakeholder engagement is crucial for the success of PPCPs, but can be difficult to achieve in practice due to factors such as power imbalances, conflicting interests, and varying levels of capacity and resources among the participants [36].

The study also pointed out that active participation by the farmers in the PPCPs may not be possible. This finding aligns with the literature, which highlighted the need for targeted efforts to empower and engage farmers as key stakeholders in such partnerships, given the potential barriers they may face in terms of access to information, resources, and decision-making power [37].

In light of their potential deficits of PPCPs, it is necessary to implement strategies for strengthening PPCPs in the smallholder banana value chain in Mutasa District. Consensus building is paramount and this finding is consistent with the existing literature, which suggests that the alignment of goals and priorities among stakeholders is a crucial factor for the success of PPCPs [38]. It is important to establish a shared understanding of the problem and a common vision among the partners, as this can help to mitigate potential conflicts and ensure the effective coordination of efforts.

Clarity on the roles of the partners along the banana value chain is critical and the argument aligns with the literature, which suggests that the clarification of roles and responsibilities among the partners is essential for the successful implementation of PPCPs [39, 40]. It is important to have well-defined governance structures and decision-making processes to ensure the effective coordination and management of the partnership. More so, equitable distribution of risks and rewards is crucial for the long-term sustainability of PPCPs [41].

Equally essential is the need for continuous monitoring and assessment of partnership performance for identifying and addressing challenges, as well as for ensuring the achievement of the desired outcomes. There is a need to develop robust monitoring and evaluation frameworks that can capture the multifaceted impacts of PPCPs on different stakeholder groups. Literature suggests that the identification and involvement of the right partners, with the necessary skills, resources, and influence, is crucial for the success of such partnerships [42].

Farmer capacity to have a voice and actively participate in the banana value chain is another pathway for strengthening PPCPs. This finding is supported by the literature, which emphasizes the importance of empowering smallholder farmers and ensuring their meaningful involvement in the decision-making and implementation processes of PPCPs [43].

The public institutions, private sector entities, and the farming communities have roles to play in the PPCPs. The tripartite actors ought to work together along the entire banana value chain. **Figure 1** shows the PPCP model for the smallholder banana value chain.

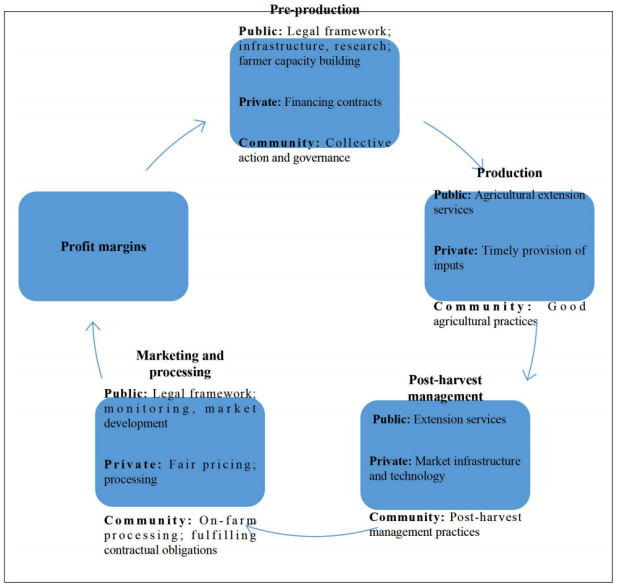

Figure 1. PPCP model for enhancing the smallholder banana value chain.

Figure 1 shows that PPCPs can be a success if the public, private, and community actors work together in the essential stages that are part of the banana value chain. The banana farming system is cyclical, with the key value chain stages being pre-production, production, post-harvest management, marketing and processing, as well as the realization of profit margins by the actors, which feed back into the cycle. In all the stages, the tripartite actors have important roles as indicated in **Figure 1**.

In the context of PPCPs, the public sector should have a crucial involvement in the whole process of the banana value chain, from the first stages to ensuring profitability in the value chain. This encompasses the process of regulatory and policy formulation, the establishment of infrastructure and technology, and the enhancement of farmer skills and knowledge. It is imperative for the government to establish regulations and standards for banana exports in order to enhance the competitiveness of local banana growers. This involves guaranteeing adherence to food safety and quality regulations for global markets. It is necessary for the public sector to engage in trade negotiations in order to decrease tariffs and non-tariff obstacles to facilitate banana exports. Zim Trade and other government marketing organizations should prioritize investing in trade agreements to mitigate tariffs and non-tariff barriers for banana exports.

In the realm of PPCPs, it is advisable for private sector entities such as financial institutions, non-governmental organizations, certifiers, transporters, retailers, and wholesalers to encourage the use of contractual farming agreements. This encompasses the advancement of contractual farming schemes, wherein firms offer resources, advisory services, and a secured market for the agricultural products of the farmers at predetermined pricing. This provides small-scale farmers with a consistent source of income and minimizes their vulnerability to fluctuations in prices.

The smallholder farmers ought to work together, as farming communities. The banana farmers should establish cooperatives in order to collectively bargain for better pricing on fertilizers, insecticides, and other agricultural inputs. Community-based finance is necessary to provide inexpensive financial services to the smallholder farmers.

5. Conclusions

The central focus of this study was on examining PPCPs as pathways for strengthening the smallholder ba-

nana value chain in Mutasa District of Zimbabwe. While the smallholder banana farmers are essential cogs in the value chain, the profit margins they realize do not align with their efforts. Thus, this study's line of argument was that PPCPs, which reduce information asymmetries, improve transparency, enhance fairness, facilitate risk sharing, capacitate farmers, and promote value addition, are feasible options for strengthening the banana value chain. However, PPCPs require sound management so that power asymmetries and conflicts of interest among the value chain actors do not compromise success. Sound management of PPCPs includes consensus building, clarity pertaining to the partners' roles, fair sharing of risks and benefits, monitoring and evaluation, and building the capacity of the smallholder partners. Effective PPCPs facilitate active participation between the public, private, and community actors along the entire value chain.

Author Contributions

There was equal contribution by the authors, who worked together in all the stages of the research process.

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Institutional Review Board Statement

This study did not require ethical approval because it did not pose any risks to the stakeholder organizations, the respondents, and the participants.

Informed Consent Statement

Informed consent was obtained from all the stakeholder organizations, the respondents, and the participants in this study.

Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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Conflicts of Interest

The authors declare that they have no conflict of interest.

References

[1] Shoniwa, B.M., 2024. Public-Private-Community Partnerships as pathways for climate governance in Zimbabwe. In: Haruna, P.F., El Baradei, L., Benavides, A., et al. (eds). Climate Governance in International and Comparative Perspective: Issues and Experiences in Africa, Latin America, and the Caribbean. Information Age Publishing: Charlotte, NC, USA. pp. 157–183.

[2] High Level Panel of Experts on Food Security and Nutrition, 2018. Multi-stakeholder partnerships to finance and improve food security and nutrition in the framework of the 2030 Agenda. HLPE Report 13, June 2018.

[3] Ngenchi, S., 2016. Building sustainable and inclusive smallholder farming food value chains in Cameroon: Case of the North West Farmers' Organization (NOWEFOR). Abstracts for the Proceedings of the FAO/UNEP Programme on Sustainable Food Systems; Rome, Italy; 8–9 June 2016. p. 11.

[4] Ruhela, A., Singh, J., Singh, H.N., 2021. Impact assessment of 'potash for life' project: Accelerating adoption of balanced use of fertilizers and enhancing farm income of farmers' in Chhattisgarh, India. The Pharma Innovation. 10(10), 1453–1472.

[5] Food and Agriculture Organization, 2023. Banana market review: Preliminary results 2023. CC9120EN/1/12.23.

[6] Mugwagwa, I., Bijman, J., Trienekens, J., 2020. Typology of contract farming arrangements: A transaction cost perspective. Agrekon. 59(2), 169–187.

[7] Olounlade, O.A., Li, G.C., Kokoye, S.E.H., et al., 2020. Impact of participation in contract farming on smallholder farmers' income and food security in rural Benin: PSM and LATE parameter combined. Sustainability. 12(3), 901–920.

[8] Kumbirai, B., Zedias, K., Upenyu, M., 2022. Ba-

nana production in Zimbabwe: An analysis from a biotechnological perspective. International Journal of Multidisciplinary Research and Development. 9(7), 28–36.

[9] Maganga-Nsimbila, P., 2021. Determinants of contract farming adoption and its impact on productivity of smallholder cotton producers in Tanzania. International Journal of Social and Administrative Sciences. 6(2), 55–69.

[10] Marongwe, N., 2022. Challenges facing smallholder banana farmers in Zimbabwe. African Journal of Agricultural Research. 17(4), 647–657.

[11] Muchara, B., Mbata, C.N., 2016. Role of institutional innovations on smallholder agricultural entrepreneurship in KwaZulu-Natal, South Africa. Journal of Human Ecology. 55(2). 41–50.

[12] Olufemi, O.S., 2024. Exploring banana production in Africa for food security and economic growth: A short review. Food Nutrition Chemistry. 2(1, 125), 1–8.

[13] Gebre, G.G., Rik, E., Kijne, A., 2020. Analysis of banana value chain in Ethiopia: Approaches to sustainable value chain development. Cogent Food & Agriculture. 6(1), 1–31.

[14] Dassou, A.G., Tovignan, S., Vodouhè, F., et al., 2021. Constraints and implications of organic farming in bananas and plantains production sustainability in Benin. Agricultural Sciences. 12(6), 645–665.

[15] High Level Panel of Experts on Food Security and Nutrition, 2018. Multi-stakeholder partnerships to finance and improve food security and nutrition in the framework of the 2030 Agenda. HLPE Report 13, June 2018.

[16] Post, L., Schmitz, A., Issa, T., et al., 2021. Enabling the environment for private sector investment: Impact on food security and poverty. Journal of Agricultural and Food Industrial Organisation. 19(1), 25–37.

[17] Food and Agriculture Organization, 2021. The state of food and agriculture 2021.

[18] Post, L., Schmitz, A., Issa, T., et al., 2021. Enabling the environment for private sector investment: Impact on food security and poverty. Journal of Agricultural and Food Industrial Organisation. 19(1), 25–37.

[19] Shoniwa, B.M., Musanzikwa, M., 2022. Comprehensive policy framework for procurement in agriculture: An invisible hand for effective maize production in Zimbabwe. In: Zhou, G., Zvoushe, H. (eds). The Public Policy Question in Zimbabwe's Evolving Development Agenda: Policy as the Hub of National Development. South African Association of Public Administration and Management (SAAPAM): Soshanguve, South Africa. pp. 149–162.

[20] Sarkar, B., Basu, D., Jana, H., et al., 2022. Profitability analysis and stakeholders perception of banana value chain in Nadia district of West Bengal. Indian Journal of Extension Education. 58(2), 124–145.

[21] Shoniwa, B.M., 2023. Public-Private-Community Partnerships (PPCPs) as a mechanism in enhancing food security during the COVID-19 Pandemic in Zimbabwe. Public Administration and Policy. 26(2), 199–212.

[22] Kanniainen, J.P., 2017. New Public Governance and New Public Management in the Funding and Contractual Steering of the Finnish Higher Education System [Master's thesis]. Tampere, Finland: University of Tampere. pp. 1–111.

[23] Osborne, S.P., 2010. The New Public Governance: A Suitable Case for Treatment. In: Osborne, S.P. (ed). The New Public Governance: Emerging Perspectives on the Theory and Practice of Public Governance. Routledge: London, UK. pp. 1–16.

[24] Klijn, E.H., Koppenjan, J., 2012. Governance network theory: Past, present and future. Policy and Politics. 40(4), 187–206.

[25] Dickinson, H., 2016. From new public management to new public governance: The implications for a 'new public service'. In: Butcher, J., Gilchrist, D. (eds). The Three Sector Solution: Delivering Public Policy in Collaboration with Not-for-Profits and Business. The Australian National University Press: Canberra, Australia. pp. 234–256.

[26] McQuaid, R.W., 2010. Theory of organisational partnerships: Partnerships advantages, disadvantages, and success factors. In: Osborne, S.P. (ed.). The New Public Governance: Emerging Perspectives on the Theory and Practice of Public Governance. Routledge: London, UK. pp. 127–148.

[27] Soullier, G., Moustier, P., 2018. Impacts of contract farming in domestic grain chains on farmer income and food insecurity: Contrasted evidence from Senegal. Food Policy. 79(1), 179–198.

[28] Mehazabeen, A., Srinivasan, G., Radhakrishnan, S., 2021. A constraint analysis on production and marketing of banana in Andhra Pradesh, India. Plant Archives. 21(1), 2215–2216.

[29] Gill, R., 2019. The Farm Credit System. June 2019.

[30] Bragdon, S.H., Hayes, C., 2018. Reconceiving public-private partnerships to eradicate hunger: Recognizing small-scale farmers and agricultural biological diversity as the foundation of global food security. Georgetown Journal of International Law. 49(4), 1271–1319.

[31] Alliance for Green Revolution in Africa, 2021. A decade of action: Building sustainable and resilient food systems in Africa. Report no. 9, 2021.

[32] United Nations, 2024. Sustainable development goals report 2024.

[33] Voora, V., Bermúdez, S., Farrell, J.J., et al., 2023. Ba-

nana prices and sustainability.

[34] Muchara, B., Mbata, C.N., 2016. Role of institutional innovations on smallholder agricultural entrepreneurship in KwaZulu-Natal, South Africa. Journal of Human Ecology. 55(2), 41–50.

[35] Olufemi, O.S., 2024. Exploring banana production in Africa for food security and economic growth: A short review. Food Nutrition Chemistry. 2(1, 125).

[36] Khadka, P., Solberg, S.O., 2020. Apple value chain analysis in two mountainous districts in Nepal. Journal of Agricultural and Crop Research. 8(1), 1–10.

[37] Post, L., Schmitz, A., Issa, T., et al., 2021. Enabling the environment for private sector investment: Impact on food security and poverty. Journal of Agricultural and Food Industrial Organisation. 19(1), 25–37.

[38] Warshini, A., Raut, A.A., Jaiswal, D.K., 2022. Adoption of banana production technology among banana growers in Vaishali district of Bihar. Indian Research Journal of Extension Education. 22(5), 137–141.

[39] Marquez-Feliciano, M., Marquez-Feliciano, C., Feliciano-Cruz, M., 2021. Banana production and trade: Global trends and opportunities for Latin America and the Caribbean. Journal of Agribusiness in Developing and Emerging Economies. 11(2), 245–263.

[40] Mehazabeen, A., Srinivasan, G., Radhakrishnan, S., 2021. A constraint analysis on production and marketing of banana in Andhra Pradesh, India. Plant Archives. 21(1), 2215–2216.

[41] Ruhela, A., Singh, J., Singh, H.N., 2021. Impact assessment of 'potash for life' project: Accelerating adoption of balanced use of fertilizers and enhancing farm income of farmers' in Chhattisgarh, India. The Pharma Innovation. 10(10), 1453–1472.

[42] Olounlade, O.A., Li, G.C., Kokoye, S.E.H., et al., 2020. Impact of participation in contract farming on smallholder farmers' income and food security in rural Benin: PSM and LATE parameter combined. Sustainability. 12(3), 901–920.

[43] Mugwagwa, I., Bijman, J., Trienekens, J., 2020. Typology of contract farming arrangements: A transaction cost perspective. Agrekon. 59(2), 169–187.