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## Contribution of export market on improving rural livelihood in Zanzibar

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### Abstract

This study examines the contribution of export market on improving rural livelihood in Zanzibar. The researcher has mainly employed quantitative research approach with appropriate method of analysis for this study. The sample size for this study consists of 250 respondents using simple random sampling technique and survey questionnaire was used as data collection instrument. To achieve reliable results, descriptive statistical techniques were used to analyse the collected data from relevant respondents. The study has revealed that more than 60 percent of the total respondents have agreed and strongly agreed that, export market is improving the rural livelihood in Zanzibar. The study concluded that least cost of production is the main factor that leads to improve the rural livelihood in Zanzibar. The study recommended that the responsible ministry should improve value chains, which will require not just better infrastructure but also improved logistics, standards, compliance systems, regulations, and information systems.

**Keywords:** export market, rural livelihood, income, employment

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### Introduction

In Tanzania, agriculture sector to sustainable development has been recognized as being important to reduce poverty and promoting rural development (Miyamoto, 2020) <sup>[25]</sup>. Agriculture is the dominant activity of Tanzanian economy, with about 70 per cent of Tanzanians living in rural areas and 75 per cent depending on agriculture for their livelihood (Mahembe and Odhiambo, 2020) <sup>[22]</sup>. Agriculture sector in Tanzania is also important to the financial sector in other, less visible but still very critical way it is a sector that has great influence on price stability, or the value of savings, for Tanzania (Zeng *et al.*, 2021) <sup>[42]</sup>. The Consumer Price Index (CPI) for Tanzania, Food and nonalcoholic beverages account for 38% of the basket of prices of goods and services consumed (this is with weights revised in 2015). Therefore, price increases in food related items have a very significant impact on the rate of inflation in Tanzania, and hence the value of savings (Mosha and Daudi, 2020) <sup>[27]</sup>. The food and beverage index has however been the fastest growing component of the CPI, having cumulatively increased by 78% in 2015 (2010 Base) and already having grown by 17% in 2017 (2015 Base). It is therefore in the interest of the financial sector and macroeconomic policy at large that the agriculture sector is productive and stable so that the value of savings, and the viability of the financial sector, maintained (Bathla *et al.*, 2020) <sup>[6]</sup>

Zanzibar on the other hand has a great potential for developing agriculture, taking into account its comparative advantage of having good soils and rainfalls to support crops production as well as natural pastures for feeding livestock (Msembo and Vance, 2015). The great diversity of marine macro flora and fauna species and a variety of forest resources provides unique opportunity for the Islands to fairly taking a lead in fulfilling the demand for domestic and export market of farm products, especially fruits and spices at the regional and international horizon (Mwaitete, 2020) <sup>[28]</sup>. In comparison to other sectors of the economy, agriculture has enormous potential in supporting livelihoods in both rural and urban areas (ZAT, 2009). Agricultural sector faces by a number of challenges, mainly associated with continuous application of inappropriate farming technologies, limited investment opportunities, and a slow pace towards commercializing agricultural production (Sulle, 2020) <sup>[39]</sup>. Zanzibar Development Vision 2020 provides the long-term development policy framework for Zanzibar with the overall objective of eradicating poverty in the Islands. The Vision emphasizes the need to transform agriculture from subsistence to commercial oriented agriculture (Osabohien *et al.*, 2019) <sup>[32]</sup>. Zanzibar Government take the great effort to make sure agriculture sectors reduce poverty among the people of Zanzibar, but the data does not show how well agriculture helps in improving rural livelihood in Zanzibar. Therefore, this study aims at conducting study on the Contribution of Agricultural Sector Development to improve rural livelihood in Zanzibar.

### Statement of The Problem

Agriculture is an important economic sector of the Zanzibar's economy in terms of food production, employment generation, production of raw material for industries and generation of foreign exchange. The agricultural sector produces about 32.2 percent of Gross Domestic Product (GDP) (OCGS, Economic Survey

Report, 2010) and the contribution of crop sub sector to Agriculture Industry of which the crop carry more weight of 21.8 percent, livestock 4.5 percent, 5.2 percent for Fishing and the lowest share was recorded from Forestry and hunting 0.3 percent (Izryadnova *et al.*, 20217). In an effort to improve the agricultural sector, the Revolutionary Government of Zanzibar initiated and carried out a range of agricultural programs and projects such as PADEP, ASSP/ASDP, MACEMP, TASAF to improve rural livelihood. According to the HBS 2012, it is estimated that, 44.41 percent of Zanzibar is live below poverty line, while 13.4 percent live the food line. About 50.74 percent of people in the rural area live below the basic need poverty line and 13.87percent below food poverty line (Steinfeld *et al.*, 2006).

Despite the Government, initiate various programs still the problem of poverty exist and become serious issue in Zanzibar. However, several studies have been conducted in Zanzibar about the impact of agricultural sector, but most of them based on the economic development of a country. Therefore, this study focus on examine contribution of export market on improving rural livelihood in Zanzibar so as to fill the gap left behind by other studies.

### **Emperical Literature Review**

This part reviews some of the recent empirical studies done by other scholars in the area under study and their findings.

Arham, (2020) <sup>[3]</sup> on the agricultural performance contribute to the rural livelihood. Agriculture is the primary sector in many provinces in Indonesia. In fact, most of the rural community's work in the agricultural sector. Nevertheless, the poverty level in rural areas remains high. Therefore, this study was aimed at investigating the performance of the agricultural sector in reducing the rural poverty level in Indonesia, and to investigate factors that contribute as a determinant in reducing rural poverty level in Indonesia. This study was significant, considering that the result was to contribute to government policy evaluation in the agricultural sector, especially in reducing poverty in rural areas. This study used quantitative analysis through multiple regressions with data panel from 2014 to 2017 from 33 provinces in Indonesia. This study revealed that the increase of agricultural sector share and the widening of the income distribution had caused an increase in poor people in a rural area. This finding also revealed that the income distribution gap was a determinant to the severity of rural poverty. The growth in the agricultural sector to contribute toward the economy could reduce rural poverty level in Indonesia. Meanwhile, agricultural financing, economic growth, inflation, and the farmer exchange rate had not significantly contributed to reducing the poverty level.

Badibanga and Ulimwengu (2020) <sup>[4, 5]</sup> conducted study on the optimal investment for agricultural growth and improve rural livelihood. They propose a two-sector economic growth model and solve it numerically using the relaxation algorithm to determine the optimal levels of investment for sustainable agricultural growth and poverty reduction. Overall, our findings suggest that past dismal growth performance and poverty trends in the Democratic Republic of Congo (DRC) are due to sub-optimal investment in agricultural sector. Our results suggest that optimal level of agricultural investment paves the way to achieving both growth and poverty goals faster than it would have been possible otherwise. Over the period 2002-2012, agricultural investment represents only 45% of its optimal levels. Under the optimal investment scenario, agricultural GDP grows faster. However, agricultural GDP growth rate falls significantly behind that of non-agricultural GDP, and thus delay the achievement of growth and poverty goals. The results suggest that additional agricultural investment coupled with improved agricultural inputs productivity will speed up the country's pace toward achieving growth. Also poverty reduction targets: a 10% increase in labor productivity combined with a 10% increase in land productivity reduces by 18 years the amount of time within which the CAADP growth goal will be reached and increases the pace of poverty reduction.

Sargison, (2020) <sup>[36]</sup> explained that, Small ruminants are particularly well suited to meet United Nations Sustainable Development Goals surrounding food security, human wellbeing and people livelihood in different environmental and climatic settings. However, the current efficiency of food production from small ruminants in both developed agricultural regions and in lower and middle-income countries is woefully inadequate to meet predicted global needs over the forthcoming decades. Most global research to address this challenge is focused on the genetics of animal growth, conformation and disease tolerance or resistance traits, albeit the practical consequences of such selection and strategies to use genetically improved animals in the field are uncertain. Any long-term benefits derived from small ruminant genetic selection will only be impactful if steps are first taken to keep animals alive, healthy and productive through iterative planned health management. Parasites are the foremost global infectious disease constraints to efficient small ruminant production. Their genetic adaptability to exploit opportunities afforded by effects of climatic or management changes on free-living stages, or exposure of parasitic stages to drugs, presents specific challenges to their sustainable control. Hence, parasite control provides a relevant means of engagement with livestock keepers and farmers on the topic of planned animal health management. The value of parasitology in this regard is enhanced by the availability of simple to use and accessible diagnostic tools.

Deng and Zhang, (2020) <sup>[13]</sup> The Sustainable Development Goals to improve people livelihood in all its forms and ensuring zero hunger by 2030 remain among the main challenges facing humanity. Despite the high flows of foreign capital (foreign aids and FDI) and the importance of the agricultural sector in developing countries, the question that arises is why these countries still live in the vicious circle of poverty and food insecurity? To answer this question, three step-approach proposed by Baron and Kenny (1986) to demonstrate how foreign

direct investment (FDI) and four types of foreign aids [social infrastructure aid (SIA), investment aid (IA), Non-investment aid (NIA), and agriculture-forestry-fishing aid (AFFA)] reduce poverty and ensure food security through the development of the agriculture sector. Using data for 50 developing countries over the period 1995–2015, the study found that agricultural production in developing countries played a mediating role between FDI, SIA, AFFA, and poverty reduction. It also explains the relationship between FDI, SIA, and food security. Accordingly,

Pe'er *et al.*, (2020) <sup>[33]</sup> explained the fundamental role that agriculture plays in development has long been recognized. In the seminal work on the subject, agriculture was seen as a source of contributions that helped induce industrial growth and a structural transformation of the economy. They argued that a new paradigm is needed that recognizes agriculture's multiple functions for development in that emerging context: triggering economic growth, reducing poverty, narrowing income disparities, providing food security, and delivering environmental services. Yet, governments and donors have neglected these functions of agriculture with the result that agriculture growth has been reduced, 75% of world poverty is rural, sectoral disparities have exploded, food insecurity has returned, and environmental degradation is widespread. Mobilizing these functions requires shifting the political economy to overcome anti-agriculture policy biases, strengthening governance for agriculture, and tailoring priorities to country conditions.

Song *et al.*, (2020) <sup>[38]</sup> explained that, the multifunctional agriculture (MFA) has been supported in the European Union (EU) for over two decades, primarily as part of rural development policy in which agriculture is encouraged to deliver a range of economic, social and environmental outcomes. MFA has also grown in some countries without significant policy support, notably in peri-urban fringes in North America and Australasia. Further expansion of this phenomenon is now apparent in China under strong central government policy directives from the early 2000s. Drawing upon a decade of studies of MFA in China, this study examines some of the responses to various related policy initiatives, including major programs, such as Grain for Green, which have encouraged farmers to generate environmental services. It also refers to the scope for individual farm households to take initiatives leading to MFA via adoption of multiple functions on smallholdings (e.g., rural tourism, food processing).

Rehman *et al.*, (2019) <sup>[34, 35]</sup> on the study of the role of agriculture in promoting overall growth and poverty reduction. The major questions investigated are the following: Under what conditions is added or disproportional support for agriculture both growth enhancing overall as well as poverty reducing? Is there a trade-of between faster growth and poverty reduction in the context of agricultural development? Given that overall support for agriculture as an efficient growth enhancing and poverty, reducing strategy can be justified, what are the most appropriate ways to support agriculture so as to maximize the effectiveness of such support in generating growth and reducing poverty? The review finds that the basic ingredients for faster agricultural growth are known, such as agricultural research and development, extension, rural infrastructure, education, etc. However, while we know the variables affecting agricultural total factor productivity, the profession is much less sure about the magnitudes of the relevant elasticities, as well as the ways in which these elasticities are affected by other factors.

## Methodology

A quantitative research design was used to undertake the study on contribution of export market toward the improving of rural livelihood in Zanzibar. The reason behind for choosing this particular research design is because of its suitability for a study to use descriptive approach. This study was conducted in South Region Pemba, Mkoani District. The reasons behind the selection of this area are that South region is the leading area for Agricultural activities. Also, this region is the most populated region in Pemba where there is greater concentration and varieties of agricultural activities. Most of peoples in this area are engaged in agriculture compared to other regions. The target population for this study comprised 666 people who are engaged in agricultural sector activities at Mkoani District Pemba. The study employed probability-sampling techniques where simple random sampling technique was also used. This enabled the researcher to choose the respondents who provided necessary information, and enabled the respondents to have almost equal chance of being involved in the sample. Also, a total of 250 respondents were involved to provide information on the contribution of agricultural sector toward poverty reduction in Zanzibar. The sample size selected was appropriate because it enable the researcher to collect the required data quickly and accurately. The self-administered questionnaire was used because it enabled the researcher to collect data from relatively large sample, limited the biasness from the interviewer and protects the privacy of respondents. The questionnaire involves two types of questions, which are, open-ended and closed-ended questions. The study used descriptive analysis technique to determine the frequency and percentage of respondents' responses on the study objective.

## Study Findings

### Demographic Characteristics of the Respondents

This part gives brief account of that was concerned in this study. The part based on the characteristics of the respondents related to their, age, gender, marital status, educational level, occupational status and the discussion of each characteristic follows bellow.

**Table 1:** Demographic of the respondents

Variables	Category	Frequency	Percentage
Age	20-29	24	9.6
	30-39	58	23.2
	40-49	128	51.2
	50-59	25	10.0
	60 above	15	6.0
Gender	Male	150	60.0
	Female	100	40.0
Marital status	Married	173	69.2
	Single	59	23.6
	Widow	10	4.0
	Divorced	8	3.2
Educational level	Primary	19	7.6
	Secondary	25	10.0
	Certificate	77	30.8
	Diploma	115	46.0
	Bachelor degree	10	4.0
	Post graduates	4	1.6

The summarized results from Table 1 indicates that, 24 respondents equal to (9.6%) ranges from 20 – 29, 58 (23.2%) ranges from 30 – 39, 128 (51.2%) ranges from 40 – 49, 25 (10.0%) ranges from 50 – 59 and those who were 60 above were 15 respondents equal to (6.0%). Therefore, the analysis revealed that respondents were dominated by the large number of age groups of 40 to 49. This is because this age group is a good age of main power in every activity in any country. Also the table1 shows that, total of 250 respondents equal to 100% were asked in this question. 146 respondents equal to (60%) were male and 101 respondents equal to (40%) were female. These results clearly indicated that the most respondents who were participated in this study question were male, since Males is a group, which is most, participated in different activities rather than female. Moreover, it seems from the table that 173 respondents made (69.2%) were married, 59 (23.6%) were single, 10 (4.0%) were widow and those who were divorced were 8(3.2%). This is indicated that, most of the respondents who were involved in answering questions in this study were married since, covered more than 67.8% of the total respondents. Finally, a total of 250 respondents who were involved in this study, 19 respondents equal to (7.6%) were having primary education, 25(10.0%) were having secondary education, 77(30.8%) were in a certificate level, 115(46.0%) were having diploma education, 10(4.0%) were having bachelor degree and 4 respondents (1.6%) were having post graduate education. Therefore, the results of the study indicated that, most of the respondents involved in this study were having certificate and diploma levels of education, since, it they cover by more than 60%.

### **Contribution of export market on improving rural livelihood in Zanzibar**

The contribution of export market on improving rural livelihood in Zanzibar was described according to the study results. The respondents were supposed to select either agree, strongly agree, disagree, and strongly disagree or neutral.

### **Improves gross domestic product (GDP) and food**

In this part of the objective, respondents were asked whether to agree, strongly agreed, disagreed strongly disagree or being neutral. the findings of this part of the study were summarized in table 2

**Table 2:** Improves gross domestic product (GDP) and food

Level of agreement	Frequency	Percent
Strongly agree	110	44.0
Agree	124	49.6
Neutral	7	2.8
Disagree	4	1.6
Strongly disagree	5	2.0
Total	250	100.0

**Source:** Field Data, 2021

The summarized results from Table 2 indicated that, out of 250 respondents involved in this study, 110 equal to (44.0%) strongly agreed, 124 (49.6%) agreed, but 7 respondents equal to (2.8%) were neutral, those who disagreed were 4 equal to (1.6%), and those who strongly disagreed were 5 equal to (2.0%). Therefore, the findings of the study revealed that, most of respondents (49.6%) agreed that the export market improve rural livelihood in Zanzibar by improving gross domestic product (GDP) and food.

These results supported by the results of the study of Pelletier *et al.*, (2016) that rural livelihoods are characterized by a high degree of export market, market volatility, and political unrest. Increasingly, the concept of resilience is being used to inform development initiatives aimed at building the capacity of rural households and communities to cope, adapt, and transform in the face of diverse shocks and stressors. There remain, however, significant challenges to mainstreaming resilience thinking into food and nutrition security policy and programming, primarily because the concept is best understood as being embedded within dynamic and contextual processes that can be interpreted differently by various parties.

### **Increases, the non-farm sector development**

In this part of the objective, respondents were asked whether to agree, strongly agreed, disagreed strongly disagree or being neutral on increase sing, the non-farm sector development. The findings of this part of the study were summarized in Table 3

**Table 3:** Increases, the non-farm sector development

Level of agreement	Frequency	Percent
Strongly agree	92	36.8
Agree	143	57.2
Neutral	6	2.4
Disagree	5	2.0
Strongly disagree	4	1.6
Total	250	100.0

**Source:** Field Data, 2022

The summarized results from Table 3 indicated that, out of 250 respondents involved in this study, 92 equal to (36.8%) strongly agreed, 143 (57.2%) agreed, but 6 respondents equal to (2.4%) were neutral, those who disagreed were 5 equal to (2.0%), and those who strongly disagreed were 4 equal to (1.6%). Therefore, the findings of the study revealed that, most of respondents like 57.2% agreed that the export market improve rural livelihood in Zanzibar by increasing, the non-farm sector development.

These results supported by the study of Abera (2021) on the determinants of rural livelihood diversification. The study utilized both primary and secondary data, which are qualitative and quantitative in their nature. The results showed that agriculture (43.2%), agriculture plus non-farm (25.5%), agriculture plus off-farm (19.3%) and a combination of agriculture plus non-farm plus off-farm (12%) activities are the most pertinent livelihood strategies in the study area. It was found that agriculture has a leading contribution to the total households' income (72.5%) followed by non-farm (20%) and off-farm activities (7.5%). Multinomial logit model result revealed that land holding size, educational status, livestock holding, sex, age, market distance, credit access, annual income, access to training and household sizes were the major determinants of livelihood diversification strategies.

### **Provide more employment opportunities outside of agriculture**

In this part of the objective, respondents were asked whether to agree, strongly agreed, disagreed strongly disagree or being neutral on provide more employment opportunities outside of agriculture. The findings of this part of the study were summarized in Table 4

**Table 4:** Provide more employment opportunities outside of agriculture

Level of agreement	Frequency	Percent
Strongly agree	154	61.6
Agree	80	32.0
Neutral	9	3.6
Disagree	4	1.6
Strongly disagree	3	1.2
Total	250	100.0

**Source:** Field Data, 2022

The summarized results from Table 4 indicated that, out of 250 respondents involved in this study, 154 equal to (61.6%) strongly agreed, 80 (32.0%) agreed, but 9 respondents equal to (3.6%) were neutral, those who disagreed were 4 equal to (1.6%), and those who strongly disagreed were 3 equal to (1.2%). Therefore, the findings of the study revealed that, most of respondents in this study about 61.6% were strongly agreed that the export market improve rural livelihood in Zanzibar by Provide more employment opportunities outside of agriculture.

These results supported by Jayne *et al.*, (2017) on the contribution of agriculture to the people livelihood. It was explained that, rapidly rising demand for food, fueled by population and income growth, will provide major employment opportunities for Agri-food systems to accelerate employment creation and transform African

economies. Seizing these opportunities will require African agriculture to become more inclusive and profitable. Greater profits in farming will generate greater expenditures by millions of people in rural areas that fuel the transition to a more diversified and robust economy. Higher incomes for millions of households engaged in agriculture will expand the demand for goods and services – and therefore employment – in the non-farm economy, while also opening up new employment opportunities across all stages of agri-food systems.

#### **Minimize high percentage of the poor's expenditure**

In this part of the objective, respondents were asked whether to agree, strongly agreed, disagreed strongly disagree or being neutral on the minimizing high percentage of the poor's expenditure. The findings of this part of the study were summarized in Table 5

**Table 5:** Minimize high percentage of the poor's expenditure

<b>Level of agreement</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	98	39.2
Agree	132	52.8
Neutral	10	4.0
Disagree	6	2.4
Strongly disagree	4	1.6
Total	250	100.0

**Source:** Field Data, 2022

The summarized results from Table 5 indicated that, out of 250 respondents involved in this study, 98 equal to (39.2%) strongly agreed, 132 (52.8%) agreed, but 10 respondents equal to (4.0%) were neutral, those who disagreed were 6 equal to (2.4%) and those who strongly disagreed were 4 equal to (1.5%). Therefore, the findings of the study revealed that, most of respondents in this study about 52.8% were strongly agreed that the export market improve rural livelihood in Zanzibar by Minimize high percentage of the poor's expenditure.

Byerlee *et al.*, (2009), also support this study about the fundamental role that agriculture plays in development has long been recognized. In the seminal work on the subject, agriculture was seen as a source of contributions that helped induce industrial growth and a structural transformation of the economy. However, globalization, integrated value chains, rapid technological and institutional innovations, and environmental constraints have deeply changed the context for agriculture's role. Yet, governments and donors have neglected these functions of agriculture with the result that agriculture growth has been reduced, 75% of world poverty is rural, sectorial income disparities have exploded, food insecurity has returned, and environmental degradation is widespread, compromising sustainability.

#### **It create additional employment on farms which benefits the poor**

In this part of the objective, respondents were asked whether to agree, strongly agreed, disagreed strongly disagree or being neutral about the creation additional employment on farms which benefits the poor. The findings of this part of the study were summarized in Table 6

**Table 6:** Create additional employment on farms which benefits the poor

<b>Level of agreement</b>	<b>Frequency</b>	<b>Percent</b>
Strongly agree	135	54.0
Agree	91	36.4
Neutral	11	4.4
Disagree	9	3.6
Strongly disagree	4	1.6
Total	250	100.0

**Source:** Field Data, 2022

The summarized results from Table 6 indicated that, out of 250 respondents involved in this study, 135 equal to (54.0%) strongly agreed, 91 (36.4%) agreed, but 11 respondents equal to (4.4%) were neutral, those who disagreed were 9 equal to (3.6%), and those who strongly disagreed were 4 equal to (1.6%). Therefore, the findings of the study revealed that, most of respondents in this study about 54% were strongly agreed that the export market improve rural livelihood in Zanzibar by creating additional employment on farms, which benefits the poor.

Interest in agriculture for growth and poverty reduction reawakened in the early 2000s made all the keener by the sudden rise in cereals prices on world markets in 2007–08. But is it still possible to drive agricultural growth through small farms, as happened in the green revolution? Whether small farms have a future was debated at a workshop held in Wye, United Kingdom, in June 2005. It concluded that small farm development is not just desirable for poverty reduction, but also feasible, even in changing circumstances and particularly those of more concentrated supply chains with more demanding buyers.

### Conclusion

The study examines contribution of export market on improving rural livelihood in Zanzibar; on the basis of the four research questions, findings obtained and evidence presented it is reasonable to conclude that, most of respondents (49.6%) agreed that the export market improve rural livelihood in Zanzibar by improving gross domestic product (GDP) and food. Therefore, the findings of the study revealed that, most of respondents like 57.2% agreed that the export market improve rural livelihood in Zanzibar by increasing, the non-farm sector development. Therefore, the findings of the study revealed that, most of respondents in this study about 61.6% were strongly agreed that the export market improve rural livelihood in Zanzibar by increasing, the non-farm sector development on providing more employment opportunities outside of agriculture. The findings of the study revealed that, most of respondents in this study about 52.8% were strongly agreed that the export market improve rural livelihood in Zanzibar by Minimize high percentage of the poor's expenditure.

### Recommendation of the Study

Due to the findings of this study, the researcher recommended that, the responsible ministry should improve value chains, which will require not just better infrastructure but also improved logistics, standards, compliance systems, regulations, and information systems. The contribution of agricultural science and technology to agriculture will grow so that solutions should be found to the increasing pressure on natural resources and declining labor force in agriculture. This will require a multi-approach and multichannel orientation to ensure that innovations reach farmers and enterprises. Also, the government should make efforts to speed up the development of agricultural sector that could be achieved by having a well formulated framework of sectorial development of agriculture which will be used even if there is a change in government. This is means that any government that comes in power, has to implement the policy; that will help to solve the challenge of policy implementation which highly turns back the development of agricultural sectors.

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